Actual and Perceived Emotional Similarity in Couples' Daily Lives

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Abstract

We used two experience sampling studies to examine whether close romantic partners' feelings of love and perceived partner responsiveness are better predicted by their actual emotional similarity or by their perceived emotional similarity. Study 1 revealed that the more partners were emotionally similar, the more they perceived their partner as responsive. This effect was mediated by perceived similarity, indicating that emotional similarity had to be detected in order to exert an effect. Further, when people overperceived their emotional similarities, they also reported more perceived partner responsiveness. Study 2 replicated these findings, by revealing similar effects for actual and perceived similarity on the love people reported to feel toward their partner. Implications for understanding the factors that predict feelings of love and responsiveness in close relationships are discussed.

Keywords

emotional similarity, perceived emotional similarity, closeness, perceived responsiveness, romantic relationships, close relationships, emotion

Emotions play a cardinal role in romantic relationships (Schoebi & Randall, 2015): They guide how people interact with their partner and how the partner in turn perceives, understands, and responds to these emotions is critical for relationship functioning (Clark et al., 2001; Keltner & Haidt, 1999). Feeling emotionally similar to one's partner would therefore promote coordination, and partners' understanding and closeness toward each other, in this way benefiting the relationship. However, it might very well be that the perception that one shares similar subjective experiences with one's partner suffices to promote connectedness (Huneke & Pinel, 2016). In two experience sampling studies, we examined whether romantic partners' feelings of closeness are better predicted by their actual emotional similarity or by their perceived emotional similarity in daily life.

Actual and Perceived Emotional Similarity and Closeness

Having similar emotional reactions to events facilitates coordinated cognitions and behavior, helps people to better understand each other and to promote cohesion and attraction (Anderson, Keltner, & John, 2003; Anderson et al., 2004). Early work on attraction also indicates the importance of emotional similarity (Berscheid & Hatfield, 1969). People prefer interaction partners who report similar emotions and are more satisfied and less stressed after these interactions (Gibbons,

1986; Locke & Horowitz, 1990; Townsend et al., 2014). However, despite these studies, evidence for greater emotional similarity positively predicting relationship closeness in established relationships has been inconclusive: greater emotional similarity has sometimes been associated with greater relationship satisfaction, closeness, and stability (Anderson et al., 2003; Gonzaga, Campos, & Bradbury, 2007) but sometimes also not (Feng & Baker, 1994; Gattis, Berns, Simpson, & Christensen, 2004; Gonzaga, Carter, & Buckwalter, 2010). Similar findings have emerged when looking at broader similarity in close relationships (Montoya, Horton, & Kirchner, 2008). People are initially attracted to similar others, but once they enter a romantic relationship, there is no consistent evidence that partner similarity, especially for subjective characteristics, contributes to the functioning of their relationship. Accumulating evidence suggests that the advantages of similarity might be primarily in "the eye of the beholder," with relationship well-being being more strongly related to perceived partner similarity than to actual similarity (e.g., Montoya et al., 2008; Murray, Bellavia,

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Holmes, & Griffin, 2002). It is very well possible that indeed the *perception* of emotional similarity rather than actual emotional similarity contributes to relationship closeness and intimacy. Support for this position comes from different theoretical models. First, theories about perceived partner responsiveness and understanding emphasize the perception part of relationship processes (Finkenauer & Righetti, 2011; Reis, Clark, & Holmes, 2004; Reis, Lemay, & Finkenauer, 2017). Closeness is facilitated by the process of coming to believe that a partner understands, validates, and cares for the core aspects of the self (such as emotions); and it is the perception of a partner's response to and understanding of these aspects more than the partner's actual response and knowledge that are essential to relationship functioning (Laurenceau et al., 1998; Pollmann & Finkenauer, 2009; Reis & Shaver, 1988). If people believe that their partner has similar feelings to themselves, this can help them to keep up the belief that their partner is a "kindred spirit," someone who is just like them and who understands them (Murray et al., 2002).

Second, and relatedly, Murray, Holmes, and Collins's (2006) risk regulation model posits that people engage in relationship-enhancing cognitions in relationships in order to protect against doubts and concerns about their partners. Partners cannot always feel the same way, and perceiving emotional similarity nonetheless allows people to still feel like their outlook on the world is similar (Rosenblatt & Greenberg, 1991). Finally, perceiving shared feelings with another person would enable the construction of a shared reality, which is a crucial component in the initiation and maintenance of a relationship (Rossignac-Milon & Higgins, 2018). Together, these different lines of research suggest that perceived emotional similarity alone may suffice to feel close toward one's partner.

Indeed, some evidence exists to support the potential importance of perceived emotional similarity in close relationships. For instance, empathic accuracy research has shown that people project their own emotions onto their partner (Clark, Von Culin, Clark-Polner, & Lemay, 2016; Overall, Simpson, Fletcher, & Fillo, 2015) and that especially men assumed more emotional similarity than was actually the case in estimating their partners' feelings in daily life (Wilhelm & Perrez, 2004). One study has simultaneously examined actual and perceived emotional similarity and how they relate to closeness. Murray and others (2002) examined partners' actual and perceived similarity in interpersonal qualities, personal values, and general emotions by questionnaires ("*how frequently has each emotion been experienced in the past month*"). They found that people who saw more of their own feelings in their partner were more satisfied with their relationships and this association was mediated by how understood they felt by them. Actual emotional similarity predicted relationship satisfaction as well but was observed to be less influential. This study adopted a trait-like perspective on partners' feelings, assessing partners' emotions only at one time point. At the same time, a core characteristic of emotions is that they are dynamic and variable in nature (Houben, Van Den Noortgate, & Kuppens,

2015). Emotions continuously change over time in response to both internal and external events (Frijda, 2007). Therefore, partners may be emotionally similar on average or at one point in time but may still differ in their moment-by-moment emotional experience.

In the present studies, we sought to examine the association of actual and perceived emotional similarity with closeness as they naturally vary throughout daily life. Focusing on within-person processes provides a valuable complement to existing research as such state-processes often operate differently than between-person processes (Curran & Bauer, 2011; Hoffman, Stawski, & Hoffman, 2009; Reis & Gable, 2000). We sought, in other words, to determine whether the findings of Murray and others would generalize to momentary experience. It seems plausible, for instance, that being emotionally similar might actually be more important than overperceiving emotional similarity for experiencing closeness in everyday interactions. Trait-level inferences allow people to select among many experiences when describing one's own and one's partners' emotions, which would open the door to the influence of cognitive and motivational biases and perceiver characteristics (Reis et al., 2017). State-level perceptions may be more determined by the actual interaction transpiring between partners. At the same time, partners cannot continually feel the same emotions in daily life, but believing that one's partner nonetheless feels similarly to oneself might facilitate feeling understood and be less costly than accurately perceiving differences in how the partner and oneself are feeling.

In sum, both actual and perceived emotional similarity may play an important role in experiencing closeness toward romantic partners in daily life; but based on the theories and research mentioned above, we would expect especially perceived emotional similarity to go together with more closeness. Our aim was to investigate this possibility empirically, and specifically whether (1) enhanced similarity in feelings and (2) enhanced perceptions of similarity in feelings (over and above actual similarity) throughout the day are associated with enhanced subjective closeness. We examined two outcome variables, perceived partner responsiveness in Study 1 and experiences of love toward the partner in Study 2. These are two constructs that are closely associated with relationship closeness and well-being (Kim & Hatfield, 2004; Reis & Aron, 2008; Reis & Shaver, 1988). We focused on the moments that partners were together, so that they could effectively perceive each other's emotions, and interpersonal processes were taking place.

In both studies, we tested whether potential effects of actual emotional similarity on closeness were mediated by perceived emotional similarity. Although actual and perceived emotional similarity are distinct from each other, perceiving emotional similarity is naturally rooted in reality and partially reflects actual emotional similarity through accuracy (e.g., West & Kenny, 2011). Following theories on perceived partner responsiveness, we would expect primarily the part of actual similarity that is noticed, or the perception part, to relate to how close partners feel to each other. The path we

propose is thus that partners feel emotionally similar, and that whether this similarity is perceived, impacts how close partners feel to each other.

The relationship between actual and perceived emotional similarity is not one-to-one because perceptions depend on different situational, relational, and trait-level factors, resulting in more or less bias (Lemay, Clark, & Feeny, 2007; Reis et al., 2017). For instance, perceived similarity results in part from projecting oneself onto the partner, which aids people to maintain a beneficial view of their relationship (E. P. Lemay & Clark, 2007, 2008, 2015; Morry, 2005, 2007; Murray et al., 2002).

Mediation variables cannot be distinguished mathematically from confounding variables, in which a third variable falsely obscures or accentuates the relationship between two variables without implying causality (MacKinnon, Krull, & Lockwood, 2000). However, an abundance of studies has shown that partners are both accurate and biased in their partner perceptions and that greater actual similarity results in greater perceived similarity (Decuyper, De Bolle, & De Fruyt, 2012; Fletcher & Kerr, 2010; Kenny & Acitelli, 2001). As a consequence, such a confounding relationship is unlikely. Suppression effects could also result in a decrease in the association between an independent and a dependent variable (MacKinnon et al., 2000). However, these would be present only when the direct and mediated effects of an independent variable on a dependent variable have opposite signs, and existing research has shown positive associations between actual and perceived emotional similarity and closeness.

Study 1

Method

Participants

Participants were 101 heterosexual romantic couples, recruited by social media, flyers, and posters. They were required to be in a relationship for at least 2 months, heterosexual, over the age of 18, and willing to participate in the study. On average, couples had been involved for 4.5 years ($SD = 2.80$) and 95% of them lived together, 7% were married, and 5% had children together. Participants were on average 26 years old (range: 18–53 years, $SD = 5.30$). The data were part of a larger project, with parts of these data having been used for other investigations, but no overlap exists (see Supplementary Material S1).

A post hoc power analysis was estimated using Mplus version 7.4, following the recommendation of Lane and Hennes (2018) on dyadic multilevel power analysis. The post hoc power for the current study was estimated to be .76. However, we want to stress that the sample size was not chosen as to optimize power for the current research question, and post hoc power analyses are heavily criticized (Hoenig & Heisey, 2001; Levine & Ensom, 2001). Couples that

completed all parts of the study received 100 euros as compensation.

Measures and procedure. The whole study consisted of online (pre- and follow-up) questionnaires, a laboratory session, and an experience sampling component. Only the experience sampling part is relevant here, for which we have data from 94 couples. This part of the study started at the end of each couple's lab session, where each partner received a smartphone instructions and a short demonstration on how to use it. They also received a booklet further explaining the usage of the smartphone and the specific smartphone questions and were inquired to not talk with each other about the questions and their responses. After the couples left the laboratory, the smartphone started beeping simultaneously for 1 week, 6 times per evening during weekdays (from 5 p.m. to 10 p.m.), and 14 times a day during weekends (from 10 a.m. to 10 p.m.). Among other questions, participants answered two affect grids, assessing how they felt and how they thought their partner felt (Russell, Weiss, & Mendelsohn, 1989).

Russell's affect grid consists of 1 item, which is a two-dimensional 9 × 9 matrix with the horizontal axis representing valence (from "pleasant" to "unpleasant") and the vertical axis representing arousal (from "sleepy" to "highly active"). The center represents the neutral middle point. During the group session, participants were told how to interpret this grid, and affective labels were attached to every end- and midpoint to further facilitate interpretation. For instance, the upper right angle was labeled with "excited," as an example of a feeling that was highly active and pleasant. Each survey included one grid on which participants had to indicate the position that best represented how they felt at that moment and one grid on which they indicated how they thought their partner felt at that moment. This resulted in four ratings for each partner: own valence (from −4 to 4), own arousal (from 0 to 8), perceived partner valence (from −4 to 4), and perceived partner arousal (from 0 to 8). These ratings were used to compute couples' actual emotional similarity and each partner's perceived similarity.

Actual emotional similarity. We calculated actual similarity in partners' momentary feelings by Euclidean distances (Kenny, Kashy, & Cook, 2006). Specifically, we calculated the square root of the sum of the squared absolute differences between both partners' valence scores and their arousal sores. The resulting scores were multiplied by −1, so that a higher score represented greater similarity, and a lower score represented lesser similarity. We did not use participants' raw ratings, but used person-mean-centered scores (based on each partners' own averages). In this way, between-person differences in partners' neutral affective points were removed and our scores represent similarity in momentary deviations from one's baseline. The following formula was used:

$$-1*\sqrt{\begin{array}{l}|\text{valence actor}_{PM} - \text{valence partner}_{PM}|^2 \\ + |\text{arousal actor}_{PM} - \text{arousal partner}_{PM}|^2\end{array}}.$$

For each couple, there was thus one emotional similarity score per signal.

Perceived emotional similarity. We again calculated Euclidean distances, but now we used each participant's own valence and arousal and his or her perception of the partner's valence and arousal. Again, resulting scores were multiplied by −1 and person-mean-centered scores were used, removing people's baseline and their perceived partner's baseline:

$$-1 * \sqrt{\begin{array}{l} |\text{valence actor}_{PM} - \text{perceived partner valence by actor}_{PM}|^2 \\ + |\text{arousal actor}_{PM} - \text{perceived partner arousal by actor}_{PM}|^2 \end{array}}.$$

This procedure resulted in two scores for each couple per signal, one for each partner.

Perceived partner responsiveness. At each signal, we asked participants to what extent they felt understood and appreciated by their partner (Reis et al., 2004). Participants answered this question by sliding with their finger over a continuous scale, going from *not at all* (recoded into 0) to *completely* (recoded into 100).

Being together versus being separate. Each signal, participants were asked whether they were with their partner at that moment. Participants could answer by indicating "yes" or "no." If one of the partners indicated that they were together, the couple was considered to be together. In 96% of the cases, participants agreed that they were together or not together. Descriptive statistics and correlations for key variables can be found in Supplementary Material S2.

Results

We conducted multilevel models, taking into account that we had multiple measurements for each participant (Level 1), who were part of a dyad (Level 2; Bolger & Laurenceau, 2013). Specifically, we tested a model in which the fixed main effects were pooled across gender. Gender was added as an interaction effect in follow-up models (by men = −1 and women = 1). If fixed effects indeed significantly differed depending on gender, we estimated two-intercept models, modeling all effects separately for men and women. Intercepts were allowed to vary randomly for men and women, and to be correlated, whereas the slopes were fixed. Errors were allowed to be correlated over time by an autoregressive covariance structure. First, we predicted participants' momentary experience of perceived partner responsiveness from couples' momentary emotional similarity. This emotional similarity measure was couple-mean-centered to capture only the fluctuations in each couple's similarity.[1] Also, to avoid potential confounds between the within-person and the between-person levels of analysis, the mean emotional similarity for each couple was grand-mean-centered and added to the model (following Bolger & Laurenceau, 2013). In this way, we explicitly modeled whether momentary increases or decreases in the similarity of partners' feelings predicted

changes in perceived partner responsiveness. We also controlled for linear time effects by adding effects for day and signal within the day to the model. It is sometimes suggested to include the component scores when estimating effects of difference scores (Griffin, Murray, & Gonzalez, 1999; Kenny et al, 2006). However, in our case, this would result in an oversaturated model with up to 24 additional parameters. Because the main argument for the inclusion of component scores is that they might drive the effects of the difference score due to high correlations with the outcome, we calculated all correlations between components and the outcomes. These can be found in Supplementary Material S2 and are shown to be small to medium (with a maximum of .28).

Because we only expected effects of both actual and perceived emotional similarity on perceived partner responsiveness when partners were together, we added whether couples were together or apart as a Level-1 variable. To this end, we included two dummy variables in the model, estimating the effects separately for the moments in which couples were together and when they were apart (also modeling random intercepts separately). As expected, no effects were observed when couples where apart (see Table 1), and these results will not be explicitly discussed further.

The exact results can be found in Table 1, Model 1. When couples were together, momentary emotional similarity positively predicted perceived partner responsiveness. This means that the more emotionally similar partners were at a certain point in time, the more perceived responsiveness they reported. Follow-up models showed no significant gender differences in this effect ($B = 0.07$, $SE = .15$, $p = .63$, 95% CI [−0.22, 0.37]).

In the second model, perceived emotional similarity was added as a predictor. We did not model the effect of perceived emotional similarity on perceived partner responsiveness separately because we wanted to control for effects that reflected accurate perceptions of emotional similarity. In this way, perceived emotional similarity explicitly captured overestimations of similarity. Again, effects were modeled separately for the moments in which couples were together versus when they were apart. The specific statistics can be found in Table 1, Model 2. When couples were together, actual emotional similarity did not predict perceived partner responsiveness anymore. Perceived emotional similarity positively predicted perceived partner responsiveness when couples were together. Follow-up models showed that there was a difference between men and women in this effect ($B = -0.42$, $SE = .20$, $p = .04$, 95% CI [−0.81, −0.03]). Perceived emotional similarity positively predicted perceived partner responsiveness in women ($B = 1.16$, $SE = .28$, $p < .001$, 95% CI [0.61, 1.71]), but not in men when couples were together ($B = 0.32$, $SE = .29$, $p = .27$, 95% CI [−0.25, 0.89]).

The disappearance of the effect of momentary actual emotional similarity on perceived partner responsiveness upon adding perceived momentary emotional similarity (especially in women) suggests a new possibility—that is, that the effect of momentary actual emotional similarity on perceived partner responsiveness is mediated by perceived emotional similarity.

Table 1. Multilevel Results for the Main Models in Study 1.

Effects on Perceived Partner Responsiveness	β	SE	t	p	95% CI
Model 1					
Intercept when together	74.71	1.30	57.66	<.001	[72.15, 77.27]
Momentary ES when together	0.54	0.18	2.94	.003	[0.18, 0.89]
Average ES when together	1.31	2.13	0.62	.54	[−2.91, 5.53]
Beep number when together	0.02	0.07	0.25	.80	[−0.11, 0.15]
Day number when together	−0.21	0.11	−1.85	.06	[−0.43, 0.01]
Intercept when apart	74.46	1.66	44.98	<.001	[71.19, 77.72]
Momentary ES when apart	−0.03	0.22	−0.12	.90	[−0.45, 0.40]
Average ES when apart	2.57	2.54	1.01	.31	[−2.48, 7.62]
Beep number when apart	−0.32	0.09	−3.56	<.001	[−0.50, −0.14]
Day number when apart	−0.43	0.16	−0.26	.009	[−0.75, −0.11]
Model 2					
Intercept when together	74.68	1.30	57.32	<.001	[72.10, 77.25]
Momentary ES when together	0.35	0.19	1.83	.07	[−0.03, 0.72]
Momentary P-ES when together	0.74	0.20	3.62	<.001	[0.34, 1.13]
Average ES when together	−0.78	2.86	−0.27	.79	[−6.44, 4.88]
Average P-ES when together	2.27	2.03	1.12	.27	[−1.74, 6.28]
Beep number when together	0.01	0.07	0.16	.87	[−0.12, 0.14]
Day number when together	−0.22	0.11	−1.93	.05	[−0.44, 0.00]
Intercept when apart	74.51	1.67	44.64	<.001	[71.22, 77.80]
Momentary ES when apart	−0.06	0.23	−0.26	.80	[−0.51, 0.39]
Momentary P-ES when apart	0.09	0.22	0.42	.68	[−0.33, 0.51]
Average ES when apart	0.16	3.50	0.05	.96	[−6.76, 7.07]
Average P-ES when apart	2.54	2.57	0.99	.32	[−2.53, 7.61]
Beep number when apart	−0.32	0.09	−3.58	<.001	[−0.50, −0.15]
Day number when apart	−0.43	0.16	−2.62	.009	[−0.75, −0.11]

Note. ES = emotional similarity; P-ES = perceived emotional similarity.

To test this hypothesis, we applied a multilevel mediation analysis, using the Monte Carlo method (Bauer, Preacher, & Gil, 2006; Preacher & Selig, 2012). The mediation or indirect effect is then tested against a 95% CI, constructed by a simulation method. To this end, we used the MLMED macro in IBM SPSS Version 25 (Rockwood & Hayes, 2017), selecting only the moments in which partners were together. This analysis is based on correlational, cross-sectional data and cannot provide strong causal conclusions (Bullock, Green, & Ha, 2010; Giner-Sorolla, 2016). However, this analysis showed that perceived emotional similarity indeed mediated the effects of actual emotional similarity. The specific statistics for all effects can be found in Figure 1.

In follow-up analyses (see Supplementary Material S3), we tested whether it mattered if partners over- or underestimated how emotionally similar they were to their partners. We found indeed that the effects of perceived emotional similarity on perceived partner responsiveness depended on the direction of the bias; only if partners overestimated how similar their partner was feeling, perceived emotional similarity positively predicted closeness.

Study 2

Study 1 provided initial evidence that the more similar couples felt in daily life, the more they perceived their partner to be
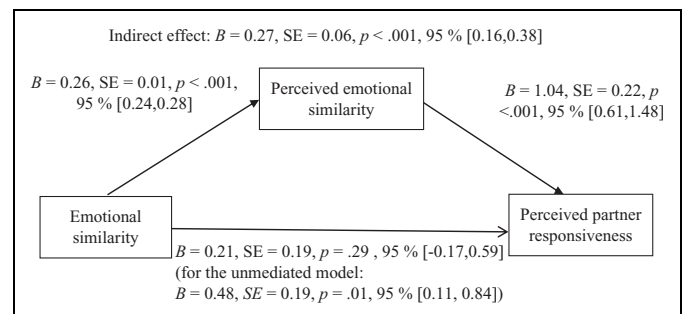

Figure 1. Study 1: Mediation analysis for the effect of emotional similarity (X) on perceived partner responsiveness (Y) through perceived emotional similarity (M).

responsive when they were together with their partner. However, upon adding perceived emotional similarity, the effect of actual emotional similarity on perceived partner responsiveness diminished. A mediation analysis suggested that the beneficial effect of actual emotional similarly depended on the perception of that similarity. Meanwhile, over perceiving emotional similarities also predicted perceived partner responsiveness, especially in women. In Study 2, we aimed to replicate this finding, now examining the effects of actual and perceived emotional similarity on people's subjective experience of love toward their partner.

Method

Participants

Fifty heterosexual couples were selected from a pool of couples, recruited by flyers and advertisements on social media, in public places, and in community and relationship therapy centers. Participants were required to be at least 18 years old, in a relationship for at least 2 months, heterosexual, and willing to participate in the study. The further selection was based on age, relationship duration, and cohabitation status (to obtain sufficient variation on these three characteristics). On average, the participants were 28 years old ($SD = 11$, range = 18–70) and had been in a relationship for 6 years ($SD = 9$ years, range = 2 months to 35 years). Of these couples, 10 were married and 18 were cohabiting, while 22 were not yet living together. After full participation, each couple received 80 euros. These data were collected as part of a larger study on emotions in relationships (see Supplementary Material S1). Post hoc multilevel power analysis yielded a power of .77.

Measures and procedure. Group sessions were held in which the couples were informed about the study, the experience sampling protocol, and how to interpret the study questions. Next, participants completed multiple inventories, and each of them received a smartphone. After a short demonstration, participants returned home and started the experience sampling part of the study. For 1 week, partners were beeped simultaneously for 10 times a day, with the occurrence of signals following a stratified random interval scheme between 10 a.m. and 10 p.m. On each signal, participants were asked several questions in random order including the two same affect grids as in Study 1. From these grids, we calculated actual and perceived emotional similarity in the same way as in Study 1. For actual emotional similarity, Euclidean distances between both partners' valence and arousal scores were used (person-mean-centered per participant). For perceived emotional similarity, Euclidean distances between own and perceived partner feelings, in terms of valence and arousal, were used (person-mean-centered per participant). Each signal, participants were asked how much love they felt toward their partner at that moment. They answered this question by a continuous slider scale, going from *less than usual* (0) to *more than usual* (100). Each signal, participants also had to indicate if they were together with their partner ("yes" or "no"). Again, couples were considered to be together when one of the partners said yes. See Supplementary Material S2 for descriptive statistics and correlations for key variables.

Results

As in Study 1, multilevel models were conducted in which measurements were nested within dyads, with random intercepts and fixed slopes, and all fixed effects being pooled across gender (estimating potential interaction effects with gender in a follow-up model). Again, between-person averages were added to the predictions to remove variance due to between-person

effects, and linear time trends were controlled. As in Study 1, effects were modeled separately for the moments in which couples were together versus when they were separate.

In the first model, we predicted momentary reports of love in participants by actual emotional similarity (within-couple-centered). Results of this analysis can be found in Table 2, Model 1. When partners were together, emotional similarity at a specific point in time did predict how much love participants reported to feel. A follow-up model showed no gender difference in this effect ($B = 0.12$, $SE = .14$, $p = .39$, 95% CI [−0.15, 0.40]). Next, both actual and perceived momentary emotional similarities were included as predictors for how much love people reported to feel for their partner (Table 2, Model 2). When couples were together, actual emotional similarity failed to predict self-reported love, whereas perceived emotional similarity did have a positive effect. There were again no significant gender differences (for actual similarity: $B = 0.25$, $SE = .15$, $p = .87$, 95% CI [−0.27, 0.31], perceived similarity: $B = 0.28$, $SE = .16$, $p = .08$, 95% CI [−0.04, 0.59]).

We conducted mediation analyses to investigate whether the effects of actual emotional similarity on love could be explained by perceived emotional similarity. Again, we only selected the moments in which couples were together. Results for the mediation analysis are presented in Figure 2. Indeed, perceived emotional similarity mediated the association between actual emotional similarity and reported love for one's partner.

In follow-up analyses (see Supplementary Material S3), we tested if it mattered if partners over- or underestimated how emotionally similar they were to their partners. In this study, we did not find substantial differences for the effect of perceived emotional similarity on self-reported love, depending on the direction of the bias.

General Discussion

We investigated if fluctuations in actual and perceived emotional similarity during couples' daily lives went together with corresponding fluctuations in experienced closeness, in the sense of perceived partner responsiveness and the love partners reported for each other. In Study 1, we found that the more similar couples felt at a certain point during the day, the more perceived partner responsiveness they reported; and perceived emotional similarity mediated these effects of actual emotional similarity. In addition to this, overperceiving similarities (that were not there) predicted increased perceived partner responsiveness, especially in women. Effects of actual and perceived emotional similarity were only observed when couples were together. Study 2 replicated these findings with experienced love. Here, actual and perceived emotional similarity predicted how much love people felt for their partner, and the effect of actual emotional similarity was mediated by its perception. However, as mentioned above, caution must be noted with inferences from these mediational analyses because they are based on correlational data in which

Table 2. Multilevel Results for the Models in Study 2.

Effects on Love	β	SE	t	p	95% CI
Model 1					
Intercept when together	68.59	1.73	39.57	<.001	[65.14, 72.04]
Momentary ES when together	0.40	0.16	2.49	.01	[0.08, 0.72]
Average ES when together	1.06	3.20	0.33	.74	[−5.36, 7.49]
Beep number when together	0.10	0.08	1.14	.26	[−0.07, 0.26]
Day number when together	−0.39	0.12	−3.20	<.001	[−0.63, −0.15]
Intercept when apart	66.37	1.70	39.11	<.001	[62.98, 69.77]
Momentary ES when apart	−0.05	0.13	−0.37	.71	[−0.30, 0.21]
Average ES when apart	1.43	3.27	0.44	.66	[−5.16, 8.02]
Beep number when apart	−0.25	0.08	−3.32	<.001	[−0.40, −0.10]
Day number when apart	−0.28	0.10	−2.68	.01	[−0.48, −0.07]
Model 2					
Intercept when together	68.67	1.72	39.89	<.001	[65.24, 72.10]
Momentary ES when together	0.23	0.17	1.35	.18	[−0.10, 0.55]
Momentary P-ES when together	0.61	0.16	3.81	<.001	[0.30, 0.93]
Average ES when together	−0.05	3.59	−0.01	.99	[−7.21, 7.11]
Average P-ES when together	1.51	2.34	0.64	.52	[−3.16, 6.18]
Beep number when together	0.09	0.08	1.03	.30	[−0.08, 0.25]
Day number when together	−0.40	0.12	−3.30	<.001	[−0.64, −0.16]
Intercept when apart	66.37	1.67	39.81	<.001	[63.04, 69.71]
Momentary ES when apart	−0.06	0.13	−0.44	.66	[−0.32, 0.21]
Momentary P-ES when apart	0.03	0.12	0.25	.80	[−0.21, 0.27]
Average ES when apart	−1.13	3.61	−0.31	.76	[−8.36, 6.10]
Average P-ES when apart	3.36	2.33	1.44	.15	[−1.29, 8.00]
Beep number when apart	−0.25	0.08	−3.32	<.001	[−0.40, −0.10]
Day number when apart	−0.28	0.10	−2.70	.01	[−0.48, −0.08]

Note. ES = emotional similarity; P-ES = perceived emotional similarity.
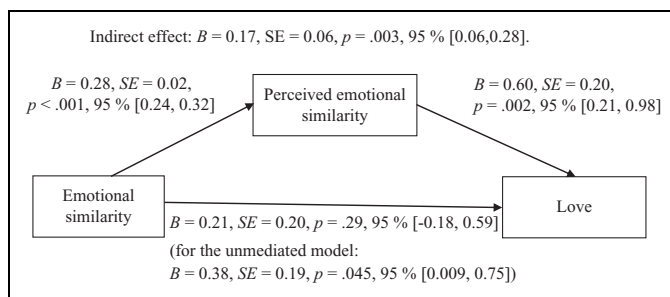
Figure 2. Study 2: Mediation analysis for the effect of emotional similarity (X) on love (Y) through perceived emotional similarity (M).

mediators cannot be manipulated and causal order cannot be derived (Giner-Sorolla, 2016).

Our findings complement research on (perceived) partner similarity in emotional experiences, subjective experiences, and similarity in general by stressing the importance of perceived similarity (Anderson et al., 2003; Gonzaga et al., 2007; Huneke & Pinel, 2016; Montoya et al, 2008; Murray et al., 2002). Such perceptions are likely to help people to feel understood, validated, and cared for (Reis & Shaver, 1988), to maintain a sense of a shared reality (Rossignac-Milon & Higgins, 2018), and to feel connected (Pinel et al., 2006). Our findings add to this literature by being the first to show that even in daily life, where people tend to be more accurate and less

biased than in global self-reports (Reis & Gable, 2000), both accurate detections and over perceptions of emotional similarity play a meaningful role in maintaining closeness in a relationship.

Being the first to examine the relationship between actual and perceived emotional similarity and closeness on a moment-to-moment level, this study is not without its limitations. For instance, in daily life, people feel positive most of the time (Cacioppo, Gardner, & Berntson, 1997), and partners mainly have positive interactions (Gable, Reis, & Downey, 2003). However, one can easily imagine situations in which feeling more emotionally similar would go together with less subjective closeness such as when partners feel angry toward each other. Further, we used difference scores to assess similarities. This enabled us to take into account both valence and arousal and is in line with literature on momentary empathic accuracy (Howland & Rafaeli, 2010). However, this measure has a number of issues such as ambiguous interpretation, confounding effects with component measures, and failure to explain variance beyond their component measures (Edwards, 1994, 2001). Additionally, these measures assesses similarity in terms of level but ignores scatter or shape similarity (Howland & Rafaeli, 2010). However, other measures of similarity need more items and would be possible to assess only on a day or couple level. Finally, our analyses were correlational, and the direction of the association between (perceived) emotional similarity and closeness is

thus unclear. We would actually argue for a bidirectional relationship: the more closeness people experience, the more similarities they perceive, which in turn maintains experienced closeness (see also Morry, Kito, & Ortiz, 2011; Murray et al., 2002). Past studies have indeed shown that people are motivated to perceive more similarities when they like or feel more close to someone (Morry, 2007, Morry et al., 2011). Further, the cross-sectional, correlational nature of our data allows alternative mediation patterns, with perceived emotional similarity being mediated by actual emotional similarity, for instance through self-fulfilling prophecy processes. More research is thus clearly needed to disentangle these different processes.

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Supplemental Material

The supplemental material is available in the online version of the article.

Note

1. This means that the data were centered twice. Participants' scores were person-mean-centered before creating a similarity measure (so that between-partner differences in average levels of emotions would not play a role, see Method section) and the similarity measure was couple-mean-centered so that between-person differences in couples' average levels of similarity would not play a role. Using raw scores for the construction of a similarity measure does not change the results in substantial ways.

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