Supplemental Materials

Table of Contents

Studies 1a-1d 2

Demographic break-down and sample size justification 2

Measure Details for Established Relationship Constructs 3

Correlation Matrices of Close Relationship Variables 6

Exploratory Factor Analyses (Items from All Constructs) 7

'Merged Minds' Logistic Regression Models 8

Studies 2a-2c 10

Demographic break-down and sample size justifications 10

Close Partner Selection 11

Cross-lagged Models 12

Study 3 13

Correlation Matrix of Constructs 13

Secondary Certainty Analysis 14

Study 4 15

Calibrix Stimuli Pilot 15

Exploratory Simple Slopes 17

Behavioral Coding Details and Examples 18

SR-G Behavioral Coding Scheme (Studies 3 & 4) 18

Conversation References Coding (Study 4) 24

Studies 1a-1d

Demographic break-down and sample size justification

In Study 1a, we sought to collect enough data to ensure adequate statistical power to detect a small-to-medium effect size of shared reality in an increment to adjusted R^2 metric (f^2 of ~.07; Cohen, 1988). A minimum of 120 participants would ensure 80% power to detect a standardized f^2 effect size of .07 (based on an increment of .04 in R^2 when adding shared reality as a predictor to a model with four other predicts and a base R^2 of .40). We aimed to collect data from at least 135 Amazon Mechanical Turk workers to allow for data exclusions based on attention checks. Participants were 138 M-Turk workers who participated for financial compensation of $1.20. We excluded data from 13 who failed at least one of two attention checks. The final sample consisted of 125 participants. Their mean age was 35.41 (*SD* = 11.80), 55.79% were female, and 79.71% were heterosexual. Their average relationship length was 9.00 years (*SD* = 7.60), and 63.04% were cohabiting and/or married.

In Study 1b, we sought to collect data from a similar number of participants. Participants were 144 M-Turk workers, who participated for a financial compensation of $1.50. We excluded data from 14 who failed at least one of two attention checks. The final sample consisted of 130 participants. Their mean age was 36.03 (*SD* = 11.70), 61.54% were female, and 84.62% were heterosexual. Their average relationship length was 10.27 years (*SD* = 9.73), and 80% were cohabiting and/or married.

The effect size of the incremental validity of shared reality in Study 1b (for a prior analysis that was removed from the paper during the revision process) was lower than that estimated in our original power analysis; thus, in Study 1c we sought to increase our sample size to enable detection of a smaller effect. A minimum of 165 participants would ensure 80% power

to detect a standardized f^2 effect size of .05. We sought to collect data from at least 195 participants to allow for exclusions. Participants were 198 Amazon Mechanical Turk workers who participated for a financial compensation of $2.25. We excluded data from 32 participants who failed at least one of three attention checks. The final sample consisted of 166 participants. Their mean age was 34.91 (*SD* = 11.25), 62.05% were female, and 87.35% were heterosexual. Their average relationship length was 8.80 years (*SD* = 8.63), and 79.52% were cohabiting and/or married.

In Study 1d, we aimed to collect data from a similar number of participants. Participants were 198 Amazon Mechanical Turk workers who participated for financial compensation of $2.50. We excluded data from 12 who failed at least one of two attention checks. The final sample consisted of 186 participants. Their mean age was 37.17 (*SD* = 11.39), 61.29% were female, and 91.40% were heterosexual. Their average relationship length was 9.60 years (*SD* = 7.67), and 87.10% were cohabiting and/or married. Additionally, two participants were excluded for all analyses including the Relationship Closeness Inventory because they did not answer the question about frequency of interactions in this questionnaire.

Measure Details for Established Relationship Constructs

Satisfaction [Studies 1a-1d] (α = .95). Relationship satisfaction was assessed with the 6-item Satisfaction sub-scale from the Investment Model Scale (Rusbult et al., 1998).

Commitment [Studies 1a-1d] (α = .96). In Studies 1a-1c, relationship commitment was assessed with a 15-item scale used by Rusbult, Kumashiro, Kubacka, and Finkel (2009)—an elaborated version of the commitment measure from the Investment Model Scale (Rusbult et al., 1998). The 7-item version was used in Study 1d (α = .83; Rusbult et al., 1998).

Perceived Partner Responsiveness [Studies 1a-1d] (α = .97). This 17-item scale assesses the degree to which participants perceive that their partner understands, values, and cares for core aspects of the self (Reis, 2003).

Relationship-Specific Identification [Studies 1a-1d] (α = .93). This 11-item scale assesses the degree to which people incorporate their relationship into their sense of self (Linardatos & Lydon, 2011).

Inclusion of Other in the Self [Studies 1a-1d]. Participants selected one in a series of increasingly overlapping circles representing how they felt about themselves and their partner, ranging from (1) non-overlapping to (7) nearly completely overlapping (Aron et al., 1992).

Intimacy Subscale of Perceived Relationship Quality Components [Studies 1b-1d] (α = .91). To measure intimacy, we used the 3-item subscale of the PRQC (Fletcher et al., 2000).

Perceived Social Support [Studies 1b-1c] (α = .88). We measured social support with a 7-item scale (Pierce et al., 1991).

Trust [Study 1c] (***α = .92).*** We measured trust with a 12-item scale which measures the extent to which participants perceive that they can depend on their partner and predict their partner's behavior (Rempel et al., 1985).

Perceived Value Similarity [Studies 1c-1d]. In Study 1c, we used a 28-item subset of the *Schwartz Value Inventory* (Schwartz, 1992), and in Study 1d, we used the 21-item *European Social Survey* (Schwartz, 2003). In both studies, these were answered on behalf of self and partner based on the procedure used by Przybylinski and Andersen (2015). Participants were asked to rate the extent to which they endorsed different values (e.g., openness, conservatism, self-transcendence, and self-enhancement), and then rate the extent to which they felt that their partner endorsed those values. Their scores were computed for each type of value and within-

person mean-centered (for the self and for the partner, to capture the relative strength of values as is standard practice; Schwartz, 1992). We then computed the absolute value of the difference between the participant's values and their perception of their partner's values, and multiplied this value by -1 (such that higher numbers indicate greater similarity).

Relationship Centrality [Study 1d] (α = .87). We used a 4-item measure of how central participants felt that their romantic relationship was in their lives (Agnew et al., 1998).

Relationship Closeness Inventory [Study 1d]. This scale measures behavioral interdependence as the frequency (time spent alone together), diversity (range of activities), and strength (influence of partner across life domains) of impact that partners have on each other's activities (Berscheid, Snyder, & Omoto, 1989).

Correlation Matrices of Close Relationship Variables

Study 1a:

	SR-G	**IOS**	**Responsiveness**	**Commitment**	**Satisfaction**
IOS	0.65	-	-	-	-
Responsiveness	0.69	0.66	-	-	-
Commitment	0.63	0.66	0.73	-	-
Satisfaction	0.62	0.64	0.86	0.83	-
Identification	0.75	0.69	0.68	0.80	0.71

Study 1b:

	SR-G	IOS	Intimacy	Responsiveness	Commitment	Satisfaction	Identification
IOS	**0.62**	-	-	-	-	-	-
Intimacy	**0.65**	0.69	-	-	-	-	-
Responsiveness	**0.66**	0.70	0.87	-	-	-	-
Commitment	**0.63**	0.55	0.70	0.67	-	-	-
Satisfaction	**0.61**	0.69	0.89	0.90	0.67	-	-
Identification	**0.62**	0.62	0.66	0.66	0.78	0.62	-
Support	**0.60**	0.58	0.76	0.86	0.65	0.80	0.61

Study 1c:

	SR-G	1	2	3	4	5	6	7	8
IOS	**0.75**	-	-	-	-	-	-	-	-
Intimacy	**0.66**	0.7	-	-	-	-	-	-	-
Responsiveness	**0.69**	0.7	0.83	-	-	-	-	-	-
Commitment	**0.74**	0.76	0.75	0.76	-	-	-	-	-
Satisfaction	**0.72**	0.77	0.91	0.88	0.83	-	-	-	-
Identification	**0.68**	0.72	0.63	0.63	0.77	0.7	-	-	-
Support	**0.63**	0.68	0.75	0.82	0.69	0.8	0.58	-	-
Trust	**0.63**	0.60	0.74	0.86	0.70	0.81	0.60	0.79	-
Value Similarity	**0.37**	0.38	0.32	0.32	0.40	0.38	0.31	0.32	0.29

Exploratory Factor Analyses (Items from All Constructs)

In each study, we retained the number of factors greater than 1 (Kaiser, 1958).

Study	**1a**	**1b**	**1c**	**1d**
How many factors had eigenvalues greater than 1?	7	9	11	9
Which factor did the SR-G items load onto?	4th	4th	4th	2nd
Did all the SR-G items load onto the SR-G factor? How highly?	yes (.43-.93)	yes (.56-1)	yes (.36-.91)	yes (.67-.78)
Which SR-G items cross-loaded onto other factors? How highly?	- **item 3** (.41 on factor 1 with satis./ responsiv. items) - **item 7** (.44 on factor 3 with identif. items)	- **item 4** (.36) - **item 7** (.34) - **item 8** (.32) (all on factor 3 with identif. items)	- **item 3** (.38 on factor 9) - **item 2** (.37 on factor 5 w support items)	none
Which other items cross-loaded on the SR-G factor? How highly?	- **satis. item 6** (.33) - **commit. item 6** (.35) - **responsiv. item 11** (.34)	none	- **commit. item 3** (.36)	- **indentif. item 5** (.38)

Kaiser, H. F. (1958). The varimax criterion for analytic rotation in factor analysis. *Psychometrika, 23,* 187-200.

‘Merged Minds’ Logistic Regression Models

Likelihood of Experiencing ‘Merged Minds’ as a Function of Shared Reality (SR-G) and Each Other Individual Predictor (Study 1d)

Predictor	*β*	95% CI
Satisfaction	-0.04	[-0.56, 0.51]
SR-G	1.68***	[1.06, 2.39]
Commitment	-0.06	[-0.46, 0.60]
SR-G	1.64***	[1.09, 2.27]
Identification	-0.31	[-0.81, 0.17]
SR-G	1.90***	[1.24, 2.66]
Responsiveness	0.04	[-0.43, 0.52]
SR-G	1.63***	[1.04, 2.32]
Intimacy	-0.22	[-0.75, 0.30]
SR-G	1.79***	[1.17, 2.50]
General Similarity	0.06	[-0.39, 0.52]
SR-G	1.61***	[1.01, 2.31]
Value Similarity	-0.22	[-0.64, 0.18]
SR-G	1.62***	[1.09, 2.25]
Rel. Centrality	-0.35	[-0.82, 0.10]
SR-G	1.91***	[1.27, 2.67]
Rel. Closeness Inv.	0.03	[-0.35, 0.42]
SR-G	1.62***	[1.09, 2.25]
IOS	0.05	[-0.40, 0.50]
SR-G	1.63***	[1.05, 2.30]

Note. * indicates $p < .05$; ** indicates $p < .01$, *** indicates $p < .001$. β indicates the log odds estimate. These present 10 different regression models (using SR-G and each other individual predictor) displayed as one table for ease of reading. These models do not include participants who responded “I have no idea what you mean by that.”

Results with participants who answered "yes" coded as 1, and those who answered either "no" or "I have no idea what you mean by that" coded as 0. The model-predicted log-odds of reporting having experienced "merged minds" were 1.33 (*SD* = 0.24, *z*(184) = 5.54, *p* < .0001). Transformed into a probability metric, this indicates that participants 1SD above the mean on SR-G had a 79.21% likelihood of having experienced 'merged minds,' compared to a 15.25% likelihood for those 1SD below the mean.

Likelihood of Experiencing 'Merged Minds' as a Function of Shared Reality (SR-G) and Each Other Individual Predictor (Study 1d)

Predictor	*β*	95% CI
Satisfaction	-0.05	[-0.54, 0.46]
SR-G	1.37***	[0.84, 1.96]
Commitment	-0.07	[-0.54, 0.42]
SR-G	1.36***	[0.89, 1.88]
Identification	-0.38	[-0.85, 0.07]
SR-G	1.62***	[1.05, 2.27]
Responsiveness	0.00	[-0.44, 0.46]
SR-G	1.33***	[0.82, 1.91]
Intimacy	-0.16	[-0.64, 0.33]
SR-G	1.43***	[0.90, 2.01]
General Similarity	0.00	[-0.42, 0.42]
SR-G	1.34***	[0.83, 1.91]
Value Similarity	-0.15	[-0.53, 0.22]
SR-G	1.31***	[0.86, 1.82]
Rel. Centrality	-0.29	[-0.72, 0.12]
SR-G	1.52***	[0.99, 2.13]
Rel. Closeness Inv.	0.03	[-0.32, 0.39]
SR-G	1.31***	[0.86, 1.82]
IOS	-0.02	[-0.43, 0.39]
SR-G	1.35***	[0.85, 1.91]

* indicates *p* < .05; ** indicates *p* < .01, *** indicates *p* < .001. *β* indicates the log odds estimate. These present 10 different regression models (using SR-G and each other individual predictor) displayed as one table for ease of reading.

Studies 2a-2c

Demographic break-down and sample size justifications

In Study 2a, participants were 256 undergraduates enrolled in an eligible undergraduate psychology course who received course credit in exchange for their participation. The conclusion of the academic year served as our stopping point. We excluded data from any diary days on which participants had missing answers to either the IOS or any of the three SR-G items (170 diary entries total out of 1180), and any days on which they failed the attention check (26 diary entries). With these remaining diary entries, we excluded data from 5 participants with less than 2 diary entries due to our interest in lagged analyses. The final sample consisted of 212 participants. Participants were 21.37 years old on average (SD = 5.13). There were 82 male participants, 127 female participants, and 1 participant who identified as “other.”

In Study 2b, participants were 190 undergraduates enrolled in an eligible undergraduate psychology course who received course credit in exchange for their participation. The conclusion of the academic year served as our stopping rule. We excluded data from any diary days on which participants had missing answers to either the IOS or any of the three SR-G items (146 diary entries total out of 862), and any days on which they failed the attention check (14 diary entries). With these remaining diary entries, we excluded data from 11 participants with less than 2 diary entries. The final sample consisted of 142 participants. Participants were 20.63 years old on average (SD = 4.43). There were 41 male participants and 101 female participants.

In Study 2c, participants were 243 undergraduates enrolled in an eligible undergraduate psychology course who received course credit in exchange for their participation. The conclusion of the academic year served as our stopping rule. We excluded data from any diary days on which participants had missing answers to either the IOS or any of the three SR-G items (224

diary entries total out of 1069). With these remaining diary entries, we excluded data from 18 participants with less than 2 diary entries. The final sample consisted of 191 participants. Participants were 20.64 years old on average (SD = 3.67). There were 68 male participants and 122 female participants, and one who identified as “other.”

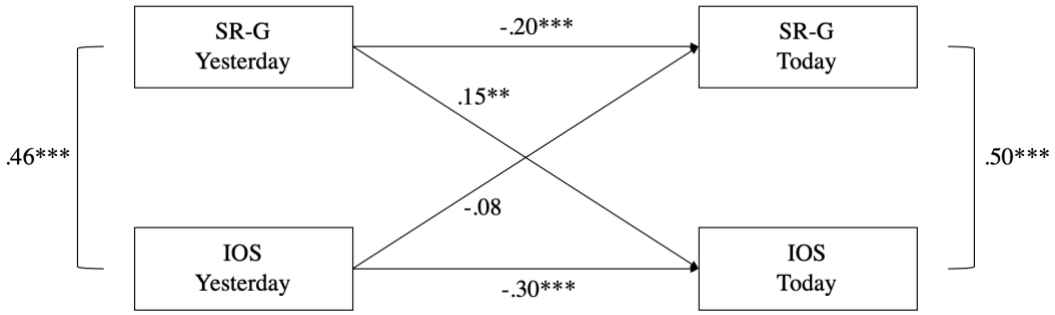
Close Partner Selection

In Study 2a, 80 participants chose their romantic partner, 62 participants chose a friend, 32 chose a roommate, 24 chose a parent, 8 chose a sibling, and chose 4 a different type of relationship partner. In Study 2b, 46 participants chose their romantic partner, 54 chose a friend, 18 chose a roommate, 15 chose a parent, 7 chose a sibling, and 2 chose a different type of relationship partner. In Study 2c, 48 participants chose their romantic partner, 68 chose a friend, 39 chose a roommate, 25 chose a parent, 8 chose a sibling, and 2 chose a different type of relationship partner.

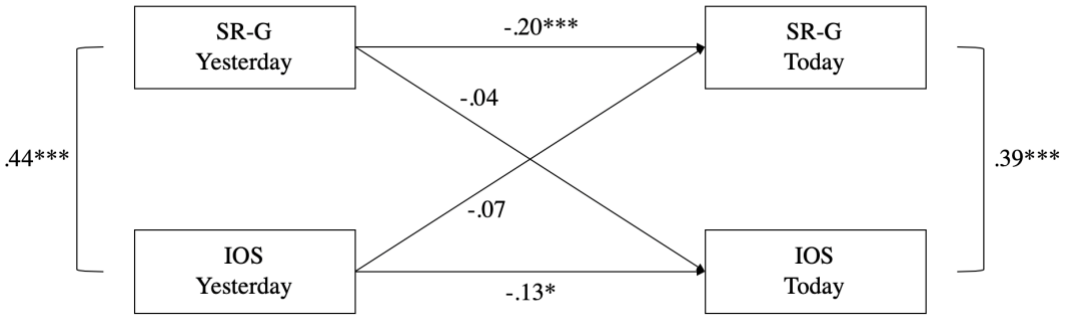
Cross-lagged Models

Cross-lagged models displaying the effect of yesterday's SR-G and IOS on today's SR-G and IOS

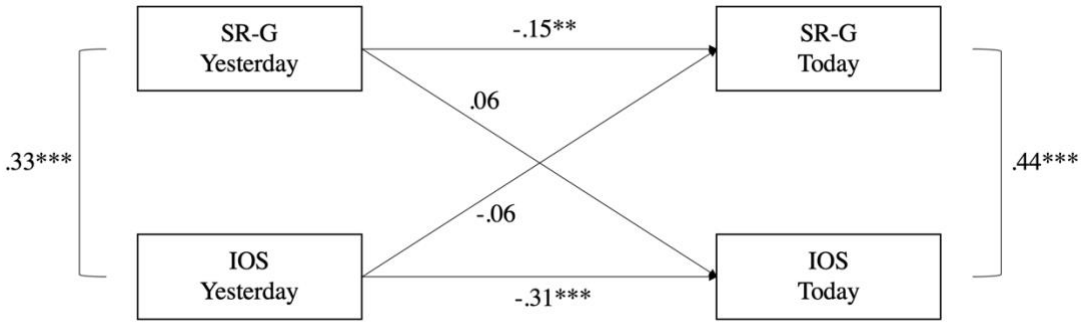
Study 2a



Study 2b



Study 2c



Study 3

Correlation Matrix of Constructs

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. SR Behav												
2. SR-G	.43**											
3. Close	.36**	.73**										
4. Rapport	.28**	.67**	.80**									
5. Chat Int.	.21**	.65**	.72**	.74**								
6. Click	.35**	.78**	.75**	.77**	.74**							
7. Resp	.43**	.76**	.74**	.71**	.60**	.75**						
8. IOS	.14*	.60**	.64**	.55**	.54**	.66**	.60**					
9. Sim	.30**	.82**	.79**	.71**	.73**	.82**	.71**	.71**				
10. Certain	.06	.43**	.33**	.33**	.34**	.34**	.36**	.34**	.39**			
11. Epis.Trust	.38**	.73**	.70**	.62**	.55**	.68**	.72**	.55**	.72**	.35**		
12. Sense	.52**	.74**	.67**	.65**	.58**	.70**	.79**	.51**	.61**	.30**	.67**	
13. Agree	.41**	.66**	.62**	.54**	.49**	.60**	.67**	.48**	.60**	.39**	.70**	.68**

Note. ** indicates $p < .001$

Secondary Certainty Analysis

Effect of SR-G on certainty after removing the SR-G item that includes the word “certainty”. Each cell displays the standardized beta coefficient, 95% CI, and p-value (Study 3).

Outcome	SR-G (single predictor)	Adjusting for perceived similarity	Adjusting for PPR	Adjusting for IOS	Adjusting for target-specific agreement
Certainty	0.42 [0.31, 0.54] <.001	0.30 [0.10, 0.50] 0.004	0.35 [0.17, 0.52] <.001	0.35 [0.20, 0.49] <.001	0.29 [0.14, 0.45] <.001

Study 4

Calibrix Stimuli Pilot

We recruited 20 participants (10 couples) in total who participated for financial compensation. Participants were 29.15 years old on average (*SD* = 10.93) and 50% female. The average relationship length was 3.30 years (*SD* = 1.63).

Upon arriving at the laboratory, couples were seated side by side at a large table and separated by a translucent screen (so that participants were aware of each other's presence without being able to see each other or each other's responses to any questions). They were told that they would independently and silently sample and rate a variety of sensory stimuli relating to visual, tactile, and gustatory experiences on various dimensions (e.g., texture, sweetness, saturation). The food stimuli were selected for their generally unique and unrecognizable flavor profiles to be unfamiliar to most participants (e.g., snacks from a foreign supermarket that participants were unlikely to find elsewhere). The tactile stimuli were different types of fabrics that participants were unlikely to have explicitly discussed with their partner (e.g., burlap, velvet). For the visual stimuli, we asked about the brightness and saturation of colors, which were difficult to answer without reference points.

Participants silently engaged with each sample for 20 seconds and then privately rated their responses on iPads. Participants evaluated three fabric samples (silk, burlap, and velvet; e.g., "How smooth is this sample?"), three food samples (selected for their generally unique and unrecognizable flavor profiles to be unfamiliar to most participants, e.g., "How crunchy is this sample?"), and three colors (e.g. "How saturated is this sample?"). In addition to rating their perceptions of the samples' properties, participants also indicated how much they liked each

sample. Next, they guessed what their partner would respond to the same set of questions. Finally, they rated their certainty in their guesses of their partner's answers.

Descriptive statistics of stimuli from Study 4 Pilot (N = 20).

COLOR	**M**	**SD**
Color1 bright	3.45	0.94
Color1 saturated	3.4	1.43
Color1 like	5.1	1.21
Color2 bright	4.55	0.94
Color2 saturated	4.3	1.3
Color2 like	5	1.12
Partner Guess Color1 bright	3.3	1.26
Partner Guess Color1 saturated	3.6	1.5
Partner Guess Color1 like	4.65	1.09
Partner Guess Color2 bright	4.3	1.34
Partner Guess Color2 saturated	4.1	1.37
Partner Guess Color2 like	4.75	1.16
Color certainty of guesses	3.8	1.36

FABRIC	**M**	**SD**
Silk	5.7	1.49
Silk like	4.55	1.36
Partner Guess Silk	5.75	1.16
Partner Guess Silk Like	3.95	1.54
Silk certainty of guesses	4.5	1.19
Burlap	5.3	0.47
Burlap like	3.95	2.11
Partner Guess Burlap	5.8	0.89
Partner Guess Burlap like	3.25	1.52
Burlap certainty	4.5	1.64
Velvet	5.25	1.41
Partner Guess Velvet	5.5	1.36
Partner Guess Velvet Like	5.8	1.24
Velvet certainty	5.15	1.53

FOOD	**M**	**SD**
Pretz sweet	3.75	1.55
Pretz crunchy	4.95	1.47
Pretz Like	4.3	2.05
Partner Guess Pretz sweet	3.4	1.7
Partner Guess Pretz crunchy	4.75	1.68
Partner Guess Pretz Like	3.85	1.95
Pretz certainty	5.25	1.07
Haw Fruit sour	3.75	1.74
Haw Fruit dry	4.95	1.43
Haw Fruit like	3.95	1.79
Partner Guess Haw Fruit sour	3.9	1.59
Partner Guess Haw Fruit dry	4.9	1.62
Partner Guess Haw Fruit like	3.95	1.73
Haw Fruit certainty	5.1	1.37
Gum sweet	5.65	1.14
Gum chewy	6.4	0.75
Gum like	5	1.59
Partner Guess Gum sweet	5.65	0.81
Partner Guess Gum chewy	6.3	0.66
Partner Guess Gum like	4.45	1.79
Gum certainty	5.55	1.05

Exploratory Simple Slopes

Exploratory simple slopes tests examining the slope of baseline SR-G in the High and Low Sensory Overlap Feedback Conditions (Study 4)

	High Sensory Overlap Feedback Condition				**Low Sensory Overlap Feedback Condition**			
Dependent Variables	*β*	95% CI	*t*-value	*p*-value	*β*	95% CI	*t*-value	*p*-value
10-min Conversation								
Latent Semantic Similarity (LSS)	-0.51	[-0.79, -0.22]	-3.54	< .001	0.30	[0.04, 0.55]	2.31	0.023
SR-G Behavioral Signatures	-0.15	[-0.46, 0.15]	-1.00	0.322	0.28	[0.01, 0.55]	2.04	0.044
Dyad-Specific References	0.04	[-0.19, 0.27]	0.32	0.747	0.42	[0.20, 0.63]	3.81	< .001
Joint Decision-Making Task								
Developing a Joint Perspective	-0.34	[-0.64, -0.03]	-2.18	0.032	0.10	[-0.17, 0.37]	0.71	0.477
Effort for Joint Decision Satisfaction	-0.33	[-0.63, -0.02]	-2.14	0.035	0.10	[-0.16, 0.37]	0.77	0.445
Participation in Decision Process	-0.31	[-0.56, -0.06]	-2.43	0.017	0.23	[-0.03, 0.48]	1.74	0.085
Decision Satisfaction	-0.26	[-0.50, -0.03]	-2.16	0.032	0.15	[-0.08, 0.39]	1.28	0.204

Note. These results display the effect of baseline SR-G on each dependent variable in the high and low conditions. The lack of consistent pattern for these simple slopes analyses suggests that our predicted contrast between the high and low conditions at higher levels of baseline SR-G is the most consistent finding across the interactions (see *Table 8* in the manuscript).

Behavioral Coding Details and Examples

SR-G Behavioral Coding Scheme (Studies 3 & 4)

During their discussion, how frequently did this dyad…

Never			*Occasionally (Average)*			*Very frequently*
1	*2*	*3*	*4*	*5*	*6*	*7*

Note. Try not to count "instances" of these behaviors - instead, after watching the interaction all the way through, rate your overall sense of how frequently the dyad was exhibiting each type of behavior.

1. Vocalize thought similarity

(e.g., "I was thinking the same thing", "I was just going to say that", "you read my mind", "That's how I think about it too"; "That's exactly what I was trying to say"; "Exactly"; "YES!")

Note. Participants don't need to say these phrases explicitly, as long as their response indicates that their partner seems to have vocalized their thought process (i.e., a thought they already had in their mind). Participants are essentially informing us that they experienced cognitive synchrony (synchronous thought process).

<u>Examples from online conversations between stranger dyads:</u>

Dyad 1
P1: I think they will pay for their purchase and leave the establishment.
P2: That's exactly what I was thinking

Dad 2

P1: Like maybe they're winding down the studying
P2: I think so too.

Dyad 3

P1: Comfortable and relaxed
P2: Yep. I was going to say happy.

Dyad 4
P1: I think the guy on the couch is like..."whatever dudes"
P2: yup
P2: looks like it
P1: I'm just along for the ride.
P2: he'll go along with whatever they are planning
P1: The two guys seem to be the decision makers and the other two seem fine with it.
P1: exactly
P2: Yep - laid back Joe.

<u>Examples from laboratory conversations between romantic dyads:</u>

Dyad 1

B: And there was also – there was one – there was one that was nice, but it had too many colors. It was like a landscape thing, it had, like, a sunset, but then there was just too much going on.
A: Yeah, exactly. It seemed like – it seemed like one of those things that's on the Jehovah's Witness, um…
B: Yeah, exactly! [Inaudible 18:27]

Dyad 2
A: [Nodding] Yeah, Joseph. Joseph didn't care!
[Both laughing]
B: Which, I feel like he would do that, in that pond. [Pointing]
A: [Nodding] Oh, god, yes.
B: For sure.
[Simultaneously]
A: Anything to get away from that guy, right?
B: Yeah.
A: That's so true.

Dyad 3
A: I thought it was an extremely beautiful image, but also, like, I didn't like the image in the sense that, like, I would want to stare at this when I go to sleep, like, I would not want to do that! [Laughing and shaking head]
[Simultaneously]
B: Exactly! Exactly! No, that was, that was also kind of the trouble I had was, like, wow, I think this is a cool image but, you know, it's kind of creepy!
A: Yeah. [Nodding]

2. Vocalize agreements/shared feelings

(e.g., "I totally agree"; "So true"; "That's how I feel too", "That makes total sense"; "You're completely right")

Note. Do not count back-channeling (i.e., saying "yeah", "right", or "mhmm" to indicate listening)—only expressions of actual agreement and sharing the partner's inner state about what they are discussing. Intonation can definitely play into this (e.g. saying "that's true" or "riiight" in an annoyed or skeptical tone can actually convey a lack of agreement).

<u>Examples from online conversations between stranger dyads:</u>

Dyad 1:
P1: Lol yeah, he looks serious. It could always just be a casual bar conversation though
P2: TRUE

Dyad 2:
P1: They are in serious thought about something important.
P2: I agree, they look really concentrated or occupied on something

Dyad 3:
P1: Probably a long day at work, trek through the cold to the bar, and now it's time to relax.
P2: Sounds right

Dyad 4:
P1: Maybe he just joined the conversation and hasn't say down yet. Or isn't really engaged in the convo?
P2: Yeah, that makes sense.
P2: He might also be about to leave or just joined and isn't staying long.

Examples from laboratory conversations between romantic dyads:

Dyad 1:
A: And... you remember there was this contorted—[Hand gesture]—with the—
B: Yeah, I didn't like it.
A: I didn't like it as well.

Dyad 2:
A: Landscape images... the ones I liked. And the dog [laugh]
B: Yeah I agree. The dog was pretty awesome.

Dyad 3:
B: …that you'd find in, like, a frame in a store.
A: Like, those old Apple backgrounds?
B: Yeah, oh my God.
A: I feel like a lot of these could have been, like, those Apple backgrounds from the mid-2000s.
B: Definitely.

Dyad 4:
B: But then there were some where I was just like yes, that is that
A: Yeah like the little boy with the hand in the water.
B: Yeah!
A: Yeah
B: That, I really liked that too

3. Say things [nearly] at the same time

(e.g., near-synchronous exclamations, single-word utterances, phrases, quick repetitions. These need not use same exact words, as long as they are aligned *semantically*, i.e., share the same meaning])

Note. Rate the extent to which partners seemingly think of things at the same time, have the same thought processes and reactions during the conversation, or simultaneously express the same ideas about what they are discussing. In these instances, cognitive synchrony appears to have occurred.

Examples from online conversations between stranger dyads:
Dyad 1:
P1: I think they are talking because the man in the hat is a PI who the man in the hooded shirt has hired.
P2: I think that the man with the pipe is a private investigator and the hooded man is telling him about something he wants him to investigate

Dyad 2:

P1: I think they're going to pay and leave
P2: They will pay then leave.

Dyad 3:
P1: they will order another round maybe
P2: I think they will both laugh. LOL
P2: I like that - another round!

P1: laugh and another round.
P2: order another round and then laugh about it yeah totally

Dyad 4:

P1: He's the serious one!
P2: he's the enforcer
P1: nod
P2: the leader of the pack
P1: #dab
P2: haha
P2: He's giving him the stern dad looks.
P1: most likely

Examples from laboratory conversations between romantic dyads:

Dyad 1
B: Um, I'm trying to think… oh!
A: Reminds me of Pokemon!
B: Reminds me of Pokemon! Like all things.

Dyad 2
B: … out here on a Saturday morning to look at shitty motivation posters.
[Simultaneously]
A: Motivational posters!

Dyad 3
A: It was nice. Even the monastery reminded me of the entire Tibet trip, like, uh, the Ladakh trip.
B: Ah, Ladakh trip.
A: Ladakh trip, right? I think it must be from Ladakh, that monastery.
B: Maybe, or from Tibet or China, or maybe even...
A: Yeah but I was reminded of that.
B: Okay.
A: That trip.
B: The Ladakh trip.
A: The Ladakh trip.

4. Finish each other's sentences or ideas

Rate the extent to which the dyad seems to be riffing off of each other's ideas, i.e., sharing one stream of consciousness and really building off each other's thoughts to co-construct a shared understanding (not just explaining their respective perspectives to each other, but building a new understanding together in a fluid way). Note that they can come from different perspectives and initially have different interpretations (or have no opinions)—as long as through their discussion, they seem to be sharing a stream of consciousness as they come to make sense of it and really building off of what the other is saying.

Examples from online conversations between stranger dyads:

[In these examples, note that the pictures came with no names – these were invented by the participants]

Dyad 1:
SERVER: What are the people in the picture talking about?
P1: the empty chair
P2: oooh dark!
P2: i dig it though
P1: seance?

P1: hahahaha!

P2: damnit carol you forgot the ouijia board?!?!

P1: LOL!
P2: dear spirits move this chair up into the air if you wish carol would have brought a ouijia board and made this easier for everyone

P1: lmao!
[…]

SERVER: Considering what you have discussed, what do you think the mood in the room is like? Why?

P2: somber? tense? nervous? excited? kinda a combo?
P1: Well, I think the spirit they are talking to hid some money and is refusing to tell them where it is because Carol forgot the board!

P2: hahaha damnit carol!

P1: that Carol....so irresponsible!

P2: so tense and frustrated!

P2: who shows up to a seance without the board?!

Dyad 2:

P1: He is trying to establish dominance in the room, but failing miserably.
P2: HAHA
P2: No one cares if you stand up, Ted

P1: I sort of wish they had faces

P2: Me too, I think Ted would be crying

P1: The more I look at them the more it creeps me out
P2: Yeah.. their little blank faces and nubby hands
[…]
P2: There is definitely a semblance of distress.

P1: Oh my god maybe they're about to arm wrestle

P2: Right. Ted is about to walk up and show him what's up.

P1: Exactly. It's a frat party

Dyad 3:

P1: He's the father and feels uncomfortable in the situation

P1: He doesn't know what to say

P2: Yes, maybe perplexed

P1: He's more of an observer than a participant right now

P2: Right

P1: Yeah, he has to take a mental break

P1: He's pretty upset

P2: Definitely not at ease

P1: Yeah, his body language is clear

P1: Not at ease

P2: TRUE

P1: He has things he wants to say but just doesn't know how

Dyad 4:

P1: I think they might exchange money
P2: Yes, and then they will stand up and go separate ways
P1: The man in the sweatshirt will probably go outside and head off to get ready to do the job
P1: The man with the pipe might hand him a photo or something to help with the hit
P2: The man with the pipe will get on the phone and say everything is ready to go
P2: Yes, definitely
P1: The man with the pipe will probably finish his drink
P2: He will go get in his car. It's probably raining outside.

Examples from laboratory conversations between romantic dyads:

Dyad 1

B: I felt like it was an—a virtual reality image.
A: Exactly, I felt—
B: It was unreal.
A: Yeah, unreal, I felt the same too. Uh, I felt the other thing, there were some boxes with moss over it—
B: Yes.
[simultaneously]
A: That could—
B: It could have been real.

Dyad 2

A: Yeah, actually, actually yeah, I—that one, yes.
B: Yes.
A: The sunset with the slide waterfall and the ocean next to that—
B: Yes, yes, yeah, that seemed like a painting kind of thing, maybe, I don't know...
A: Yeah but I liked—
[simultaneously]
B: But I, yeah, I also liked it. [inaudible 19:16]
A: —the picture was really good.

Dyad 3

B: Yeah. But they might, well they—
A: Hang the chicken and take a picture?
B: —hang the live chicken, yeah, just to take a picture.

Dyad 4

A: Or bad book covers!
B: Yeah!
A: Those, the kind you buy at the grocery store ‘cause you’re going on vacation and it’s very…
[Simultaneously]
B: It’s like a young adult novel.
A: [Nodding] Yes! Like, “Tommy and the Zombie Apocalypse.” [Laughing]

Conversation References Coding (Study 4)

<u>COUNT</u> HOW MANY references Partner A and B each brought up during Q3 ("What did the images remind you of?") for each of the following categories:

- **Dyad-Specific**: An association specific to the couple that reflects their shared knowledge or experience (e.g., something they have discussed or done together)
  → can be about ideas/ interests or anything that is *unique* to the relationship (e.g., that reveals a common interest, that not everyone would know about) – a dyad idiosyncrasy. → partner response is key to telling whether or not it is actually shared. Examples:
  - A reference that is so personal that it must be dyad-specific (e.g., "our cat, William")
  - Shared memories (e.g. "that time we went to the MoMA")
  - A reference where the partner responds in a way that makes it clear that they both have the same association (e.g., "like those Thomas Kinkade paintings," "Oh yeah, I remember those!")
  - Niche knowledge or references that are shared (e.g., "like Lord of the Rings on LSD," "like a character from Danganronpa")
  - "It reminded me of you" always counts as shared, because that is a dyad-specific association; "I thought you would like it" doesn't because it is not an association, just an evaluative judgment (unless it's e.g. "I thought you would like it because you love X so much," where X is an association)
  - Remember, for this variable, it does not matter whether the partner also thought of this association when they first saw the image. All that matters is whether the association itself relates to something dyad-specific.
  - If the couple brings up several specific references in relation to the same shared experience, count each association as dyad-specific. Example: "It's like that time we went to Ladakh." "Oh yes, and you spoke with the priest." → 2 shared references

- **Non-shared (personal/individual)**: An association specific to the person stating it, but not shared by the other partner. It has to be personal/specific enough that you wouldn't bring it up to someone you've just met without giving context. Examples:
  - A personal memory unrelated to the couples' relationship (e.g., "like the screensaver on my dad's old computer")
  - An experience or interest that the partner is not involved in (e.g., "like something someone in my animation class would do")
  - → partner doesn't "get it"
  - [do not count vague/ general references for these e.g., "the water pictures reminded me of the beach"]
  - If you're uncertain about whether an association is dyad-specific or personal (non-shared), look at the other partner's reaction for a clue.

- **Generic**: Something you might bring up to someone you've just met, without having to give context. Examples:
  - Famous places (e.g. "Iceland," "the Eiffel Tower")
  - Generic references (e.g. "traveling," "sunsets", "the colorful folders everyone had as a kid", "waterfalls" [unless it seems like they're talking about specific waterfalls they went to or a specific discussion they had about waterfalls, e.g. "reminds me of *those* waterfalls", which would be dyad-specific]
  - General culture ("a scene from Inception")

  - **Movies** are a common case, so here are some guidelines for movies:

- They're usually generic, BUT...
- If their behavior indicates that they saw the movie together, count it as dyad-specific (because they are now referencing a shared experience)
- If their behavior indicates that they've talked about the movie before (e.g., Partner A knows that Partner B has seen this movie and/or knows their opinion about it), count it as dyad-specific
  - If the movie is niche (e.g. *Donnie Darko, Harold and Maude*), don't count it as generic. Go with dyad-specific or non-shared depending on whether it seems like they have both seen it/ discussed it before.