

Supplementary Online Content

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eAppendix 1. Screening process

eTable 1. Demographics

eAppendix 2. Details of study design

eFigure 1. Dependent measures and when they were assessed

eAppendix 3. Changes to study protocol

eAppendix 4. Details of the dyads

eAppendix 5. Dropout curves

eFigure 2. Dropout curves by week for modules within training cohorts

eAppendix 6. Secondary outcomes: affect and arousal

eTable 2. Omnibus F-tests and random effect estimates for the affect models

eTable 3. Model estimates for affect

eTable 4. Omnibus F-tests and random effect estimates for the arousal models

eTable 5. Model estimates for arousal

eAppendix 7. Statistical methods and omnibus tests

eTable 6. Omnibus F-tests and random effect estimates for the motivation models

eTable 7. Model estimates for liking models

eTable 8. Omnibus F-tests and random effect estimates for the social closeness models

eTable 9. Omnibus F-tests and random effect estimates for the self-disclosure models

eAppendix 8. Compliance over time

eFigure 3. Weekly mean-per-participant compliance rates for all four practices as a function of cohort and module

eReferences

This supplementary material has been provided by the authors to give readers additional information about their work.

eAppendix 1. Screening process

The recruitment and screening procedure for the *ReSource Project* was a multi-step process in order to inform the participants in an appropriate manner, screen for eligibility, and ensure motivation for a large-scale one-year longitudinal study, including extensive scientific testing.

Participants were recruited by various means, e.g., flyers, local newspaper articles and advertisements, TV and radio announcements, as well as flyers in public transportation systems in Leipzig. Participants for TC1, TC2, and RCC1 were recruited in Winter 2012/2013 and for TC3 and RCC2 in Winter 2013/2014. (RCC was collected in two waves (RCC1 and RCC2) to avoid time-of-year confounds when interpreting the effects of TC3.)

First screening: Potential participants completed an online questionnaire to screen for demographic data, time constraints (training sessions, retreats) and physical and mental health factors

Exclusion criteria for the study were as follows:

- Not between 20 and 55 years old
- No computer access at home/no internet connection
- Not meeting our MRI safety house standards (no irremovable metal in the body, tattoos on the upper part of the body, permanent make-up, pregnancy or lactating mothers, obesity, diabetes, neurological disorders, head trauma with loss of consciousness, peripheral vascular diseases, peripheral arterial diseases, Reynaud's diseases, involuntary motor disorders, epilepsy, insulin pumps, retainer, inner ear implants, pacemakers, drug pumps, cerebral water drainage)
- Regular spiritual practice in the last 2 years
- Regular meditation practice in the last 2 years, participation in meditation retreats
- Does not speak/understand German fluently
- Chronic pain
- Psychotherapy in the last 2 years
- Allergic to adhesive tape
- Smoking more than 5 cigarettes per week
- Drugs and alcohol abuse
- Diagnosed mental disorders (ok if recovered more than two years ago)
- Cortisol intake
- Medications (that affect central nervous system function, psychotropics, opiates, corticosteroids, medications for anxiety, depression, or other psychological problems)
- Studies or studied psychology

Those who passed the initial screening criteria then completed a battery of mental health questionnaires. Potential participants were excluded if they scored above a pre-determined cut-off on measures of a specific mental illness:

- Major (ICD-10) Depression Inventory¹, exclusion from mild to severe;
- Toronto Alexithymia Scale², exclusion if > 60;
- State-Trait-Angstinventar³, exclusion if > 56;
- Patient Health Questionnaire-D⁴;
- Prescreening question for the Structured Clinical Interview for DSM-IV for axis II personality disorders (SCID-II)⁵, as a basis for an psychological interview;

Once putative participants passed the first screening, they received a second set of questionnaires that served as a basis for grouping participants into training and retest control cohorts at a later stage of the process.

- IQ: Grundintelligenztest Skala 2 - Revision (CFT 20-R) ohne WS/ZF-R⁶
- Test d2 – Revision (Cognitive ability)⁷

- Ten Item Personality Inventory⁸
- Self-Compassion Scale⁹
- Perceived Stress Scale¹⁰
- Five Facet Mindfulness Questionnaire¹¹
- Mental Health Continuum Short Form¹²
- Compassion for Others scale¹³
- Major (ICD-10) Depression Inventory¹
- Toronto Alexithymia Scale²
- State-Trait-Anxiety Inventory³

Second screening: After passing the online screening and completing the questionnaires, participants were invited to an obligatory information evening at the institute and given a description of the time commitments and activities required by the study. After confirming their continued interest to take part in the study by e-mail, a face-to-face mental health diagnostic interview with a trained clinical psychologist was scheduled. The interview included:

- a computer assisted version of the Structured Clinical Interview for DSM-IV Axis-I disorders⁵,
- the DIA-X¹⁴
- the German version of the SCID-II for Axis-II disorders^{15,16}.

Participants were excluded if they fulfilled the criteria for an Axis-I disorder within the past two years, if they at any point fulfilled the criteria for schizophrenia or other psychotic disorders, bipolar disorder or substance dependency, or if they fulfilled the criteria for an Axis-II disorder.

All successful participants gave written consent for their participation.

Text adapted from Chapter 7.1 Recruitment of Study Participants, pp.46-49¹⁷

eTable 1. Demographics

Start of study	TC1	TC2	TC3
N	80	81	81
Age Mean (95% CI)	41.29 (41.07/41.51)	41.19 (40.94/41.43)	40.44 (40.22/40.67)
% Female	58.75	59.26	60.49
% Married	41.77	38.46	29.49
% Unmarried and cohabiting	30.38	20.51	34.62
% Single	27.85	41.03	35.9
First dyadic module			
N	77	75	74
Age Mean (95% CI)	41.42 (39.40/43.44)	41.15 (38.94/43.35)	40.86 (38.77/42.96)
% Female	57.14	60.00	60.81
% Married	41.33	38.89	30.65
% Unmarried and cohabiting	30.67	19.44	35.48
% Single	28.00	41.67	33.87
Second dyadic module			
N	73	73	
Age Mean (95% CI)	41.37 (39.25/43.49)	41.04 (38.79/43.30)	
% Female	56.16	60.27	
% Married	39.44	38.57	
% Unmarried and cohabiting	30.99	18.57	
% Single	29.58	42.86	

"Start of study" table section adapted from Table C1.T0, Appendix C1: Sample description of participants, p.120¹⁷

eAppendix 2. Details of study design

Target sample size (N=80 for each of the three Training Cohorts, and N=90 for the two Retest Control) was determined prior to the start of data collection, based on power analyses for the fMRI tests (five datapoints per participant).

The *ReSource Project* consists of three 3-month training modules: the Presence Module, the Affect Module and the Perspective Module, each consisting of two core daily practices. The Presence Module trains attentional skills and interoception via classical meditation practices; the state effects of these non-dyadic practices are described elsewhere.¹⁸ Analyses focus on the Affect and Perspective Modules, which required participants to practice two core exercises, one 20-minute classical meditation and one 10-minute Contemplative Dyad, five times per week.

Training Cohorts 1 and 2 received the same first Module (Presence), but the order of the Affect and Perspective Modules was counterbalanced across the cohorts in order to control for order effects. Training Cohort 3 received only the Affect Module, in order to observe the effect of the Presence Module pre-training on later training. The Retest Control Condition was included to test hypotheses about the effects of meditation training on experiences outside of the immediate moment of practice. As RCC members did not practice, they could not answer the state practice effect questions being reported here.

All participants were assigned to conditions simultaneously through a bootstrapping without replacement program written by the first author (Kok).

The trial ended when the last long-term planned assessment was concluded.

	Pre-Meditation	Post-Meditation	Pre-Dyad	Post-Dyad	Post-Training
"How motivated are you to do the exercise?"	×		×		
Affect Grid (Russell, Weiss, & Mendelsohn, 1989)	×	×	×	×	
Inclusion of Other in Self Scale (Aron & Fraley, 1999)			×	×	
"How personal to you was the [...] situation you talked about?"				×	
"How much did you like the exercise?"					×

eFigure 1. Dependent measures and when they were assessed.

eAppendix 3. Changes to study protocol

- 1) Dropped requirement that all participants be right-handed. Instead, participants must be able to use a mouse with the right hand.
- 2) Interoception (MAIA) was originally included as part of the group evaluation criteria for replacement matching, but was later dropped as the large number of criteria made it difficult to create groups.

eAppendix 4. Details of the dyads

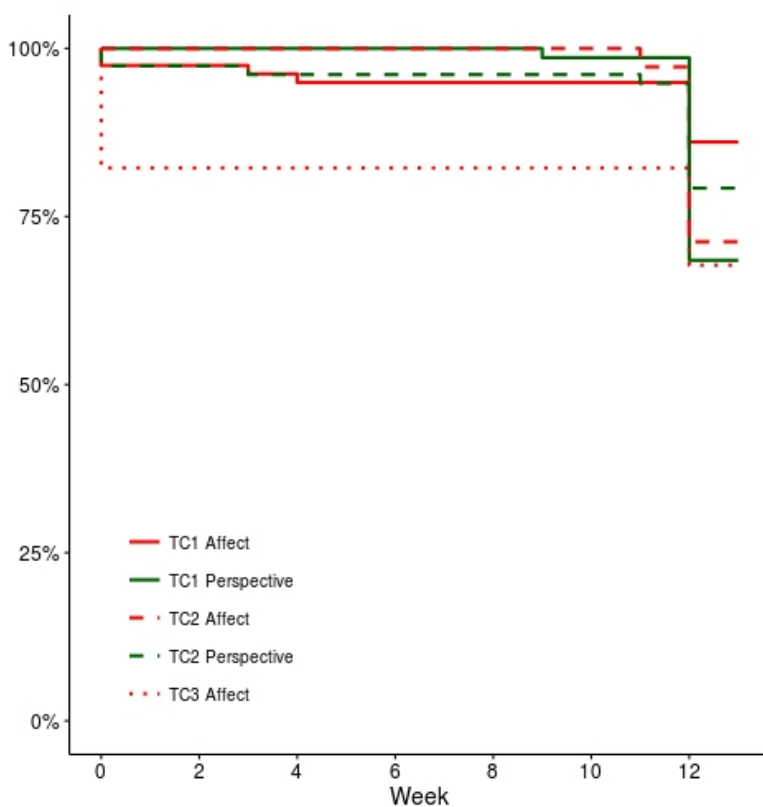
The two Contemplative Dyads of the *ReSource Project* introduced here address different skills, but are similar in structure. Participants first meet with their randomly assigned partner in the weekly group session, where they practice the dyad while facing each other and are supervised by teachers. For the rest of the week, participants conduct the daily dyads at home, using a custom-designed website or smartphone app to connect with a randomly assigned partner, whose identity changes every week. During the exercise, the website or app randomly assigns one participant to speak first, and reminds the participant of their topic. The assigned participant is able to contemplate and speak on the assigned topic for approximately 5 minutes. During this time, the listener is asked to be silent, to mindfully listen, and not to respond. Then roles reverse and after both partners had had the chance to speak and listen, participants thank one another, and the dyad ends. Each dyadic session lasts approximately 10 minutes in total.

The contemplative element of the dyadic exercise comes from the attitude and intent of the speaker and listener. The speaker is instructed to answer the dyadic prompt from the moment, without any preconceived goals, and while being in touch with whatever may be triggered by the question or her own words. She tries to focus on her immediate experience rather than on intellectual understanding or abstract thoughts. The contemplative dialogue can thus be understood as a “loud meditation” in which the speaker voices whatever comes to mind regarding the question. The listener provides her presence for the other’s contemplation, helping her to remain focused. The dyadic format is designed to foster interdependence and social connectedness by providing opportunities for self-disclosure while speaking and mindfulness and empathy while listening. As participants were paired with a new dyadic partner every week, the dyad was also meant to cultivate feelings of shared humanity.

In the Affect Dyad, speaker and listener take turns mindfully listening to each other describe feelings and bodily sensations during a difficult situation and a gratitude-eliciting situation experienced during the last day. The listener does not respond, either verbally or non-verbally, instead focusing on active, empathic listening.

In the Perspective Dyad the speaker is asked to describe a situation that occurred in the last 24 hours, taking the perspective of a previously assigned inner part of the speaker. That is, the speaker recounts an experience as perceived by “the inner judge” or “the caring mother”. The listener, in contrast, trains her cognitive perspective taking skills by attempting to infer, from the words of the speaker, which beliefs and inner aspects of the other are currently active and speaking (for details see Singer et al., 2016). Participants then switch roles.

eAppendix 5. Dropout curves



eFigure 2. Dropout curves by week for modules within training cohorts. Dropout percentages for each module are calculated based on the number of participants enrolled at the start of that module.

eAppendix 6. Secondary outcomes: Affect and arousal

Affect. A three-level mixed-effect model was fitted with random effects for intercept, *time*, and *Post*, nested within *Practice*, nested within persons. Fixed effects were included for *time*, and for *Practice*, *Post*, and their interactions. Compound symmetry was used for the random effects covariance structure.

```
lmer(Affect~weekend+age+gender+Smartphone+Practice*Post*time+
(time+Post|SubjectID/Practice),
data=AffectTC1,
na.action=na.omit)
```

eTable 2. Omnibus F-tests and random effect estimates for the affect models.

Fixed Effects	TC1			TC2			TC3		
	Chisq	Df	Pr(>Chisq)	Chisq	Df	Pr(>Chisq)	Chisq	Df	Pr(>Chisq)
weekend	34.53	1	<.001	9.66	1	<.001	1.77	1	0.18
age	0.09	1	0.76	4.73	1	0.030	0.02	1	0.89
gender	0.51	1	0.47	0.47	1	0.49	3.48	1	0.062
Smartphone	38.24	1	<.001	61.32	1	<.001	49.85	1	<.001
Practice	2.71	3	0.44	21.33	3	<.001	0.18	1	0.67
Post	45.53	1	<.001	68.07	1	<.001	98.93	1	<.001
time	4.19	1	0.041	1.11	1	0.29	2.95	1	0.086
Practice*Post	63.22	3	<.001	34.12	3	<.001	51.15	1	<.001
Practice*time	6.18	3	0.10	0.74	3	0.86	3.78	1	0.052
Post*time	0.30	1	0.59	0.33	1	0.57	15.14	1	<.001
Practice*Post*time	1.76	3	0.62	3.81	3	0.28	0.70	1	0.40
Random Effects	Variance	SD		Variance	SD		Variance	SD	
Module/Subject									
Intercept	0.13	0.36		0.08	0.28				
time	0.04	0.20		0.04	0.20				
Post	0.07	0.26		0.06	0.25				
Subject Intercept	0.54	0.74		0.60	0.78		0.53	0.73	
time	0.01	0.08		0.01	0.07		0.04	0.19	
Post	0.11	0.33		0.15	0.39		0.20	0.44	
Residual	1.32	1.15		1.29	1.14		1.58	1.26	

eTable 3. Model estimates for affect.

	TC1			TC2			TC3		
	Estimate	ME	P	Estimate	ME	P	Estimate	ME	P
Affect	0.38	0.11	<.001	0.52	0.12	<.001	0.59	0.11	<.001
Affect Dyad	0.69	0.11	<.001	0.71	0.12	<.001	0.92	0.12	<.001
Perspective	0.28	0.11	<.001	0.53	0.12	<.001			
Perspective Dyad	0.30	0.11	<.001	0.38	0.12	<.001			
Affect slope	0.002	0.003	0.11	0.001	0.002	0.62	-0.002	0.002	0.090
Affect Dyad slope	0.002	0.003	0.19	0.002	0.002	0.14	-0.001	0.003	0.52
Perspective slope	-0.001	0.003	0.69	0.002	0.002	0.12			
Perspective Dyad slope	-0.001	0.002	0.66	0.000	0.002	0.72			

Note: ME represents the margin of error for the 95% confidence interval Estimate \pm ME

All activities led to a significant positive change in affect from before to after the practice. For all groups, participants had the highest change for the Affect Dyad relative to any other practice (all $P < .0011$). OTM increased positive affect significantly more than the Perspective Dyad in TC2 only (TC1 $M = -.02 \pm .12$, $P = .79$; TC2 $M = .15 \pm .11$, $P = .007$). The magnitude of change in affect did not increase or decrease over time.

Arousal. A three-level mixed-effect model was fitted with random effects for intercept, *time*, and *Post*, nested within *Practice*, nested within persons. Fixed effects were included for *time*, and for *Practice*, *Post*, and their interactions. Compound symmetry was used for the random effects covariance structure.

```
lmer(Arousal~weekend+age+gender+Smartphone+Practice*Post*time+
(time+Post|SubjectID/Practice),
data=ArousalTC1,
na.action=na.omit)
```

eTable 4. Omnibus F-tests and random effect estimates for the arousal models.

Fixed Effects	TC1			TC2			TC3		
	Chisq	Df	Pr(>Chisq)	Chisq	Df	Pr(>Chisq)	Chisq	Df	Pr(>Chisq)
weekend	10.26	1.00	.001	20.42	1.00	<.001	27.16	1.00	<.001
age	0.96	1.00	0.33	11.40	1.00	<.001	0.02	1.00	0.90
gender	0.40	1.00	0.53	0.35	1.00	0.56	2.92	1.00	0.088
Smartphone	0.04	1.00	0.85	1.22	1.00	0.27	17.36	1.00	<.001
Practice	138.19	3.00	<.001	87.25	3.00	<.001	56.40	1.00	<.001
Post	37.03	1.00	<.001	48.20	1.00	<.001	49.59	1.00	<.001
time	9.04	1.00	0.003	0.07	1.00	0.79	4.37	1.00	0.037
Practice*Post	67.39	3.00	<.001	121.55	3.00	<.001	26.26	1.00	<.001
Practice*time	5.35	3.00	0.15	10.97	3.00	0.012	10.40	1.00	0.001
Post*time	0.11	1.00	0.74	0.00	1.00	0.95	4.27	1.00	0.039
Practice*Post*time	2.65	3.00	0.45	7.82	3.00	0.050	4.42	1.00	0.036
Random Effects	Variance	SD		Variance	SD		Variance	SD	
Module/Subject									
Intercept	0.17	0.42		0.17	0.42		0.16	0.40	
time	0.07	0.26		0.09	0.31		0.04	0.20	
Post	0.11	0.33		0.17	0.42		0.20	0.45	
Subject Intercept									
time	0.76	0.87		0.38	0.62		0.32	0.57	
Post	0.01	0.08		0.00	0.04		0.03	0.16	
Post	0.21	0.46		0.23	0.48		0.14	0.38	
Residual	1.52	1.23		1.49	1.22		1.95	1.40	

eTable 5. Model estimates for arousal.

	TC1			TC2			TC3		
	Estimate	ME	P	Estimate	ME	P	Estimate	ME	P
Affect	0.44	0.14	<.001	0.57	0.16	<.001	0.54	0.15	<.001
Affect Dyad	0.15	0.14	0.032	0.13	0.16	0.11	0.07	0.16	0.38
Perspective	0.46	0.14	<.001	0.67	0.16	<.001			
Perspective Dyad	-0.02	0.14	0.82	-0.11	0.16	0.16			
Affect slope	0.004	0.003	0.006	0.000	0.003	0.76	0.001	0.003	0.64
Affect Dyad slope	0.004	0.003	0.004	0.001	0.003	0.70	0.003	0.004	0.12
Perspective slope	0.001	0.003	0.43	0.002	0.003	0.10			
Perspective Dyad slope	0.002	0.003	0.28	0.003	0.003	0.044			

Note: ME represents the margin of error for the 95% confidence interval Estimate \pm ME

In TC1, arousal increased significantly for LKM, OTM, and the Affect Dyad but not for the Perspective Dyad. In TC2, arousal increased for LKM and OTM only. In TC3, arousal increased for LKM only. Meditation was more arousing than dyads (TC1 $M=.38\pm.10$, $P<.001$; TC2 $M=.61\pm.11$, $P < .001$; TC3 $M=.47\pm.18$, $P<.001$). The Perspective Dyad was significantly less arousing than the Affect Dyad (TC1 $M=.17\pm.13$, $P=.013$; TC2 $M=.24\pm.16$, $P=.003$).

In TC1 only, the Affect and Affect Dyads became more arousing over time, while in TC2, the Perspective Dyad became less unarousing over time.

eAppendix 7. Statistical methods and omnibus tests

Predictors of interest include *Practice* (dyad and meditation for each Module), *time* (days from start of module, mean-centered), and *Post* (whether measurements were pre- or post-practice), and their interactions.

For Training Cohort 2, the Perspective Module training occurred in part over the Christmas and New Years Holiday, during which practice requirements were lifted and no weekly training took place: December 22nd, 2013 to January 4th, 2014. Data from this period are excluded from all analyses.

For all models, raw data was analyzed. When focusing on changes, both “Pre” and “Post” scores were included in the dependent variable, with a dummy-coded “Post” variable to indicate when the measurement took place. Code snippets and omnibus F-tests are included below to make the models completely clear.

Motivation. Mixed-effects linear regression models were fitted with person-level random effects for intercept, *Practice*, *time*, and their interaction. Fixed effects were included for *Practice*, *time*, and their interaction. Compound symmetry was used for the random effects covariance structure.

Example syntax for TC1:

```
lmer(motivated~weekend+age+gender+Smartphone+Practice*time+
(Practice*time|SubjectID),
data=allTC1,
na.action=na.omit)
```

eTable 6. Omnibus F-tests and random effect estimates for the motivation models.

Fixed Effects	TC1			TC2			TC3		
	Chisq	Df	p-value	Chisq	Df	p-value	Chisq	Df	p-value
weekend	0.49	1	0.49	2.73	1	0.099	0.39	1	0.53
age	3.68	1	0.055	6.35	1	0.012	0.25	1	0.61
gender	0.65	1	0.42	1.49	1	0.22	6.29	1	0.012
Smartphone	61.33	1	<.001	35.29	1	<.001	39.90	1	<.001
Practice	247.26	3	<.001	195.77	3	<.001	19.91	1	<.001
time	0.37	1	0.54	5.71	1	0.017	0.76	1	0.38
Practice*time	2.54	3	0.47	13.20	3	0.004	10.35	1	0.001
Random Effects	Variance	SD		Variance	SD		Variance	SD	
Subject Intercept	13.30	3.65		8.31	2.88		6.07	2.46	
time	0.51	0.72		0.20	0.45		0.82	0.90	
Affect Dyad	1.86	1.37		4.27	2.07		3.95	1.99	
Perspective	3.08	1.75		3.41	1.85				
Perspective Dyad	3.98	1.99		4.98	2.23				
Affect Dyad*time	0.33	0.57		0.15	0.38		0.55	0.74	
Perspective*time	1.12	1.06		0.40	0.64				
Perspective Dyad*time	1.20	1.10		0.85	0.92				
Residual	6.37	2.52		6.38	2.53		9.00	3.00	

Liking. Due to strong skewness that could not be resolved through transformations, liking ratings were analyzed using two-level cumulative logit link multivariate mixed models, fitted in *R* with the *ordinal* package.²¹ This non-parametric modeling technique assumes that ratings are ordered but not continuous. The current model included person-level random intercepts and fixed effects for *Exercise Type* (Meditation or Dyad), *Module* (Affect or Perspective), and their interaction. Gender and age were covariates.

Example syntax for TC1:

```
clmm(liking ~ Module*Exercise Type+gender+age+(1|SubjectID),
data = likingTC1, Hess=TRUE, nAGQ=7)
```

eTable 7. Model estimates for liking models.

Fixed Effects	TC1			TC2			TC3		
	Estimate	ME	P	Estimate	ME	P	Estimate	ME	P
Perspective Module	-0.91	0.63	0.005	-0.18	0.62	0.57			
Meditation	-1.51	0.65	<.001	-0.57	0.62	0.072	0.02	0.62	0.95
gen	0.11	0.62	0.74	0.57	0.56	0.044	0.49	0.66	0.14
age	0.01	0.03	0.71	0.02	0.03	0.12	0.03	0.03	0.095
Perspective Module *Meditation	1.73	0.90	<.001	-0.28	0.87	0.52			
Threshold coefficients	Estimate	ME		Estimate	ME		Estimate	ME	
1 2	-3.77	1.57		-4.09	1.54		-3.71	2.41	
2 3	-2.36	1.49		-1.31	1.23		-1.71	1.58	
3 4	-0.77	1.47		0.10	1.22		0.58	1.45	
4 5	0.75	1.47		1.59	1.23		2.06	1.52	
Random Effects	Variance	SD		Variance	SD		Variance	SD	
Subject Intercept	0.72	0.85		0.46	0.68		0.03	0.16	

Note: ME represents the margin of error for the 95% confidence interval Estimate \pm ME

Social closeness. Closeness ratings were collected before the dyadic session, after the Perspective Dyad was complete, and after each of the two actions (listening and speaking) in the Affect Dyad. Perspective Dyad scores are compared to participant responses for the last Affect Dyad activity they completed for comparison to the Perspective Dyad post-completion rating.

A two-level mixed-effects model was fitted with a dyad-level random intercept and correlated person-level random effects for *time*, *Post*, and *Practice*. Fixed effects were included for *Practice*, *Post*, *time*, and their interactions. Compound symmetry was used for the random effects covariance structure.

Example syntax for TC1:

```
lmer(closeness~Practice*Post*time+weekend+age+gender+Smartphone+
(time+Post+Practice|SubjectID)+(1|dyadID),
data=ClosenessTC1,
na.action=na.omit)
```

eTable 8. Omnibus F-tests and random effect estimates for the social closeness models.

Fixed Effects	TC1			TC2			TC3		
	Chisq	Df	p-value	Chisq	Df	p-value	Chisq	Df	p-value
Practice	26.23	1	<.001	123.77	1	<.001			
Post	244.11	1	<.001	186.31	1	<.001	218.63	1	<.001
time	63.78	1	<.001	12.92	1	<.001	35.02	1	<.001
weekend	47.08	1	<.001	4.42	1	0.035	32.45	1	<.001
age	0.65	1	0.42	3.19	1	0.074	0.51	1	0.47
gender	1.58	1	0.21	7.59	1	0.006	1.58	1	0.21
Smartphone	42.01	1	<.001	31.71	1	<.001	33.73	1	<.001
Practice*Post	335.32	1	<.001	1.03	1	0.31			
Practice*time	23.10	1	<.001	8.50	1	0.004			
Post*time	30.57	1	<.001	4.63	1	0.031	46.92	1	<.001
Practice*Post*time	3.94	1	0.047	0.62	1	0.43			
Random Effects	Variance	SD		Variance	SD		Variance	SD	
Dyad Intercept	0.71	0.84		0.84	0.92		0.89	0.95	
Subject Intercept	2.67	1.63		4.50	2.12		2.75	1.66	
time	0.19	0.43		0.11	0.33		0.20	0.44	
Post	0.67	0.82		0.40	0.64		0.96	0.98	
Practice	1.19	1.09		0.82	0.91				
Residual	1.52	1.23		1.48	1.22		1.56	1.25	

Self-disclosure. A two-level mixed-effects model was fitted with crossed random effects: A dyad-level random intercept, and correlated person-level random effects for intercept, *time*, and *Practice*. Fixed effects were included for *Practice*, *time*, and their interaction. Compound symmetry was used for the random effects covariance structure.

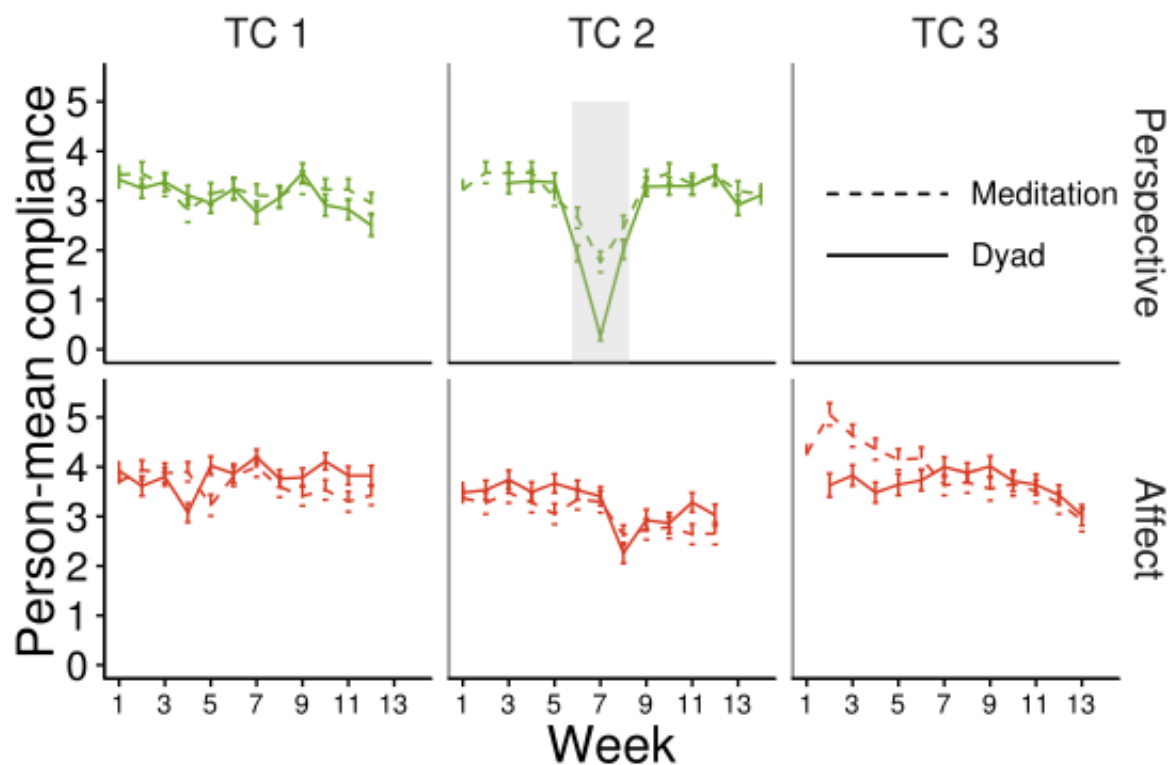
Example syntax for TC1:

```
lmer(disclosure~Practice*time+weekend+age+gender+Smartphone+
(time+Practice|SubjectID)+(1|dyadID),
data=DisclosureTC1,
na.action=na.omit)
```

eTable 9. Omnibus F-tests and random effect estimates for the self-disclosure models.

Fixed Effects	TC1			TC2			TC3		
	Chisq	Df	Pr(>Chisq)	Chisq	Df	Pr(>Chisq)	Chisq	Df	Pr(>Chisq)
Practice	0.14	1	0.71	49.72	1	<.001			
time	102.59	1	<.001	38.98	1	<.001	13.43	1	<.001
weekend	16.99	1	<.001	0.61	1	0.43	11.02	1	<.001
age	8.53	1	0.003	25.69	1	<.001	8.82	1	0.003
gender	5.60	1	0.018	1.59	1	0.21	4.92	1	0.027
Smartphone	16.55	1	<.001	4.91	1	0.027	11.88	1	<.001
Practice*time	26.51	1	<.001	10.49	1	0.001			
Random Effects	Variance	SD		Variance	SD		Variance	SD	
Dyad Intercept	0.43	0.65		0.29	0.53		0.49	0.70	
Subject Intercept	6.29	2.51		6.81	2.61		6.49	2.55	
time	0.11	0.34		0.24	0.49		0.56	0.75	
Practice	3.26	1.81		3.16	1.78				
Residual	13.40	3.66		9.65	3.11		15.27	3.91	

eAppendix 8. Compliance over time



eFigure 3. Weekly mean-per-participant compliance rates for all four practices as a function of cohort and module. The shaded area represents the Christmas Holiday period, when practice was not required. Adapted with permission.¹⁷

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