S5: Results comparing dyads

This JASP file contains the assumptions and hypotheses tests on the dyad level. It assesses evidence for and against the following hypotheses:

1. We hypothesise that there will be differences in Pause-to-turn ratio (PTR) between ASD-TD dyads compared to TD-TD dyads, such that PTRs will be higher for ASD-TD dyads.
2. We hypothesise that there will be differences in Turn-taking gaps (TTG) between ASD-TD dyads compared to TD-TD dyads, such that TTGs will be longer for ASD-TD dyads.
3. We hypothesise that there will be less synchrony of pitch in ASD-TD dyads compared to TD-TD dyads.
4. We hypothesise that there will be less synchrony of intensity in ASD-TD dyads compared to TD-TD dyads.

ttg: Repeated Measures ANOVA

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
task	380.952	1	380.952	0.094	0.761
task ✻ dyad type	16999.010	1	16999.010	4.204	0.048
Residuals	133452.190	33	4044.006		

Note. Type III Sum of Squares

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
dyad type	78556.038	1	78556.038	3.443	0.072
Residuals	752953.905	33	22816.785		

Note. Type III Sum of Squares

Assumption Checks

Test for Equality of Variances (Levene's)

	F	df1	df2	p
ttg_hobbies	0.023	1	33	0.881
ttg_mealplanning	0.462	1	33	0.501

str: Repeated Measures ANOVA

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
task	0.044	1	0.044	8.226	0.007
task ✻ dyad type	0.044	1	0.044	8.064	0.008
Residuals	0.178	33	0.005		

Note. Type III Sum of Squares

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
dyad type	0.121	1	0.121	2.237	0.144
Residuals	1.779	33	0.054		

Note. Type III Sum of Squares

Assumption Checks

Test for Equality of Variances (Levene's)

	F	df1	df2	p
str_hobbies	0.271	1	33	0.606
str_mealplanning	3.870	1	33	0.058

pit_sync_MEA: Repeated Measures ANOVA

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
task	1.267×10^{-7}	1	1.267×10^{-7}	7.020×10^{-4}	0.979
task ✻ dyad type	2.820×10^{-5}	1	2.820×10^{-5}	0.156	0.695
Residuals	0.006	33	1.805×10^{-4}		

Note. Type III Sum of Squares

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
dyad type	0.001	1	0.001	1.481	0.232
Residuals	0.025	33	7.607×10^{-4}		

Note. Type III Sum of Squares

Assumption Checks

Test for Equality of Variances (Levene's)

	F	df1	df2	p
pit_sync_MEA_hobbies	0.495	1	33	0.486
pit_sync_MEA_mealplanning	0.004	1	33	0.952

int_sync_MEA: Repeated Measures ANOVA

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
task	0.015	1	0.015	17.876	1.754×10^{-4}
task ✻ dyad type	5.084×10^{-4}	1	5.084×10^{-4}	0.609	0.441
Residuals	0.028	33	8.345×10^{-4}		

Note. Type III Sum of Squares

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p
dyad type	0.020	1	0.020	7.148	0.012
Residuals	0.092	33	0.003		

Note. Type III Sum of Squares

Assumption Checks

Test for Equality of Variances (Levene's)

	F	df1	df2	p
int_sync_MEA_hobbies	3.606	1	33	0.066
int_sync_MEA_mealplanning	0.463	1	33	0.501

ttg: Bayesian Repeated Measures ANOVA

Model Comparison

Models	P(M)	P(M|data)	$Log(BF_M)$	$Log(BF_{10})$	error %
Null model (incl. subject and random slopes)	0.200	0.269	0.389	0.000	
dyad type	0.200	0.352	0.775	0.267	1.510
task + dyad type + task ✻ dyad type	0.200	0.221	0.124	−0.200	36.299
task + dyad type	0.200	0.092	−0.906	−1.077	1.971
task	0.200	0.066	−1.260	−1.403	1.566

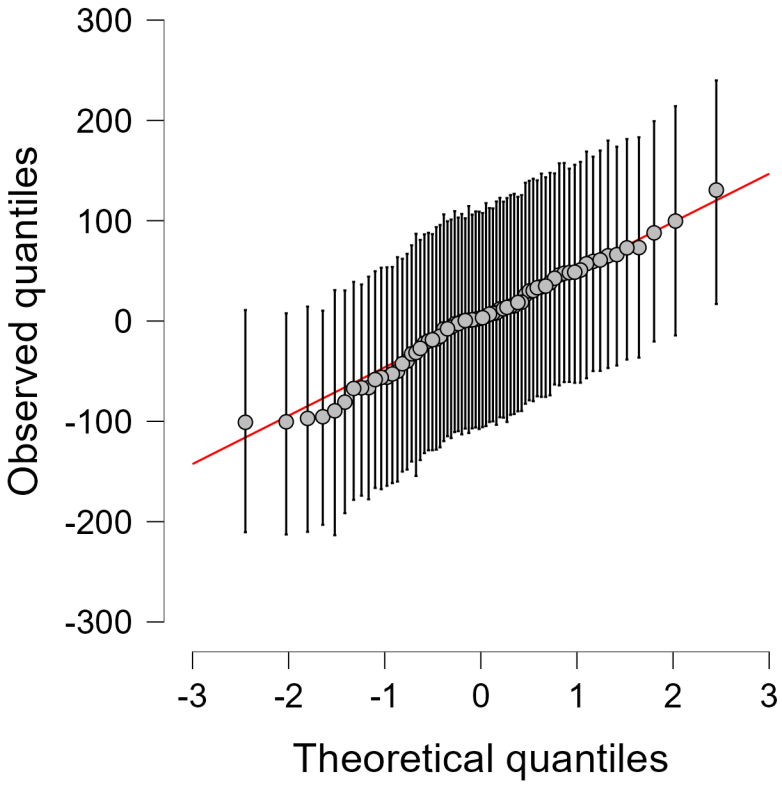
Note. All models include subject, and random slopes for all repeated measures factors.

Analysis of Effects

Effects	P(incl)	P(excl)	P(incl|data)	P(excl|data)	$Log(BF_{incl})$
task	0.400	0.400	0.158	0.621	−1.369
dyad type	0.400	0.400	0.444	0.336	0.279
task ✻ dyad type	0.200	0.200	0.221	0.092	0.877

Note. Compares models that contain the effect to equivalent models stripped of the effect. Higher-order interactions are excluded. Analysis suggested by Sebastiaan Mathôt.

Model Averaged Q-Q Plot



Descriptives

Descriptives

task	dyad type	N	Mean	SD	SE	Coefficient of Variation	95% Credible Interval	
							Lower	Upper
hobbies	heterogeneous	21	160.000	106.222	23.180	0.664	111.648	208.352
	homogeneous	14	123.429	112.557	30.082	0.912	58.440	188.417
mealplanning	heterogeneous	21	187.048	131.319	28.656	0.702	127.272	246.823
	homogeneous	14	86.857	107.828	28.818	1.241	24.599	149.115

str: Bayesian Repeated Measures ANOVA

Model Comparison

Models	P(M)	P(M|data)	$Log(BF_M)$	$Log(BF_{10})$	error %
Null model (incl. subject and random slopes)	0.200	0.011	−3.073	0.000	
task + dyad type + task ✻ dyad type	0.200	0.720	2.329	4.141	3.368
task + dyad type	0.200	0.133	−0.490	2.451	12.497
task	0.200	0.125	−0.557	2.394	0.725
dyad type	0.200	0.011	−3.127	−0.054	2.782

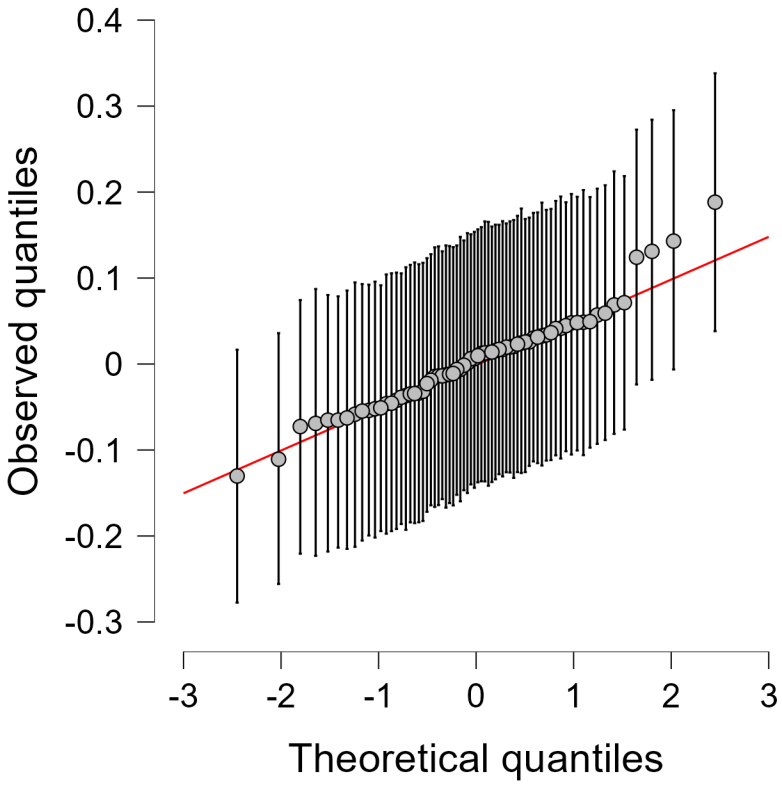
Note. All models include subject, and random slopes for all repeated measures factors.

Analysis of Effects

Effects	P(incl)	P(excl)	P(incl|data)	P(excl|data)	$Log(BF_{incl})$
task	0.400	0.400	0.258	0.022	2.449
dyad type	0.400	0.400	0.144	0.137	0.049
task ✻ dyad type	0.200	0.200	0.720	0.133	1.690

Note. Compares models that contain the effect to equivalent models stripped of the effect. Higher-order interactions are excluded. Analysis suggested by Sebastiaan Mathôt.

Model Averaged Q-Q Plot



Descriptives

Descriptives

task	dyad type	N	Mean	SD	SE	Coefficient of Variation	95% Credible Interval	
							Lower	Upper
hobbies	heterogeneous	21	0.130	0.158	0.035	1.224	0.057	0.202
	homogeneous	14	0.096	0.145	0.039	1.513	0.012	0.179
mealplanning	heterogeneous	21	0.232	0.219	0.048	0.943	0.132	0.331
	homogeneous	14	0.096	0.132	0.035	1.375	0.020	0.173

pit_sync_MEA: Bayesian Repeated Measures ANOVA

Model Comparison

Models	P(M)	P(M|data)	$Log(BF_M)$	$Log(BF_{10})$	error %
Null model (incl. subject and random slopes)	0.200	0.462	1.235	0.000	
dyad type	0.200	0.320	0.634	−0.367	1.491
task	0.200	0.111	−0.691	−1.424	0.897
task + dyad type	0.200	0.078	−1.079	−1.776	1.906
task + dyad type + task ✻ dyad type	0.200	0.028	−2.171	−2.814	3.366

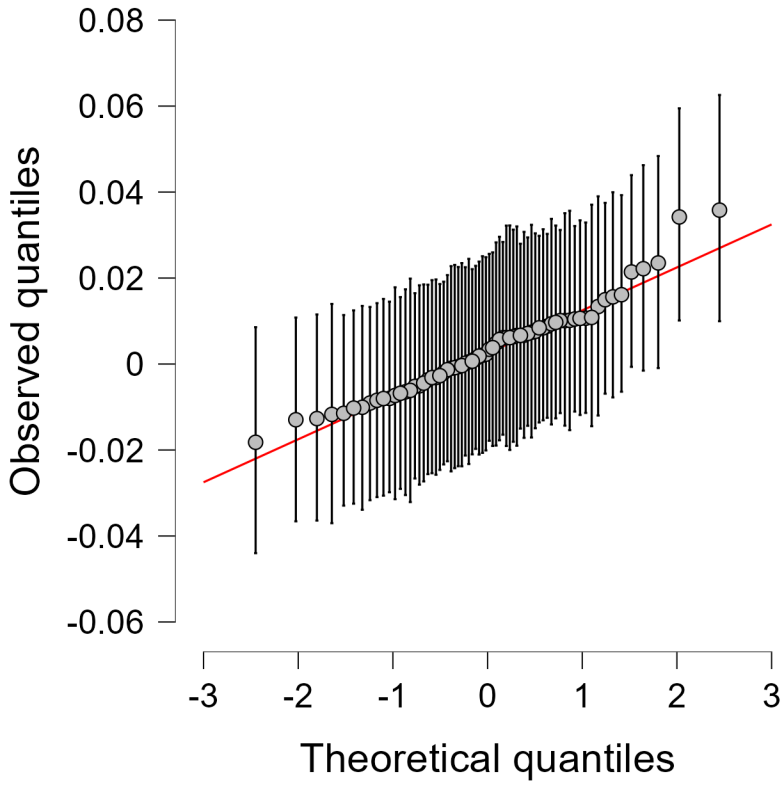
Note. All models include subject, and random slopes for all repeated measures factors.

Analysis of Effects

Effects	P(incl)	P(excl)	P(incl|data)	P(excl|data)	$Log(BF_{incl})$
task	0.400	0.400	0.190	0.783	−1.418
dyad type	0.400	0.400	0.399	0.574	−0.364
task ✻ dyad type	0.200	0.200	0.028	0.078	−1.039

Note. Compares models that contain the effect to equivalent models stripped of the effect. Higher-order interactions are excluded. Analysis suggested by Sebastiaan Mathôt.

Model Averaged Q-Q Plot



Descriptives

Descriptives

task	dyad type	N	Mean	SD	SE	Coefficient of Variation	95% Credible Interval	
							Lower	Upper
hobbies	heterogeneous	21	0.194	0.022	0.005	0.111	0.185	0.204
	homogeneous	14	0.204	0.026	0.007	0.126	0.189	0.219
mealplanning	heterogeneous	21	0.196	0.019	0.004	0.098	0.187	0.204
	homogeneous	14	0.203	0.021	0.006	0.105	0.190	0.215

int_sync_MEA: Bayesian Repeated Measures ANOVA

Model Comparison

Models	P(M)	P(M|data)	Log(BF_M)	Log(BF_{10})	error %
Null model (incl. subject and random slopes)	0.200	4.741×10^{-4}	−6.267	0.000	
task + dyad type	0.200	0.604	1.810	7.150	2.207
task + dyad type + task ✻ dyad type	0.200	0.268	0.381	6.337	4.379
task	0.200	0.125	−0.560	5.574	0.785
dyad type	0.200	0.002	−4.681	1.585	10.261

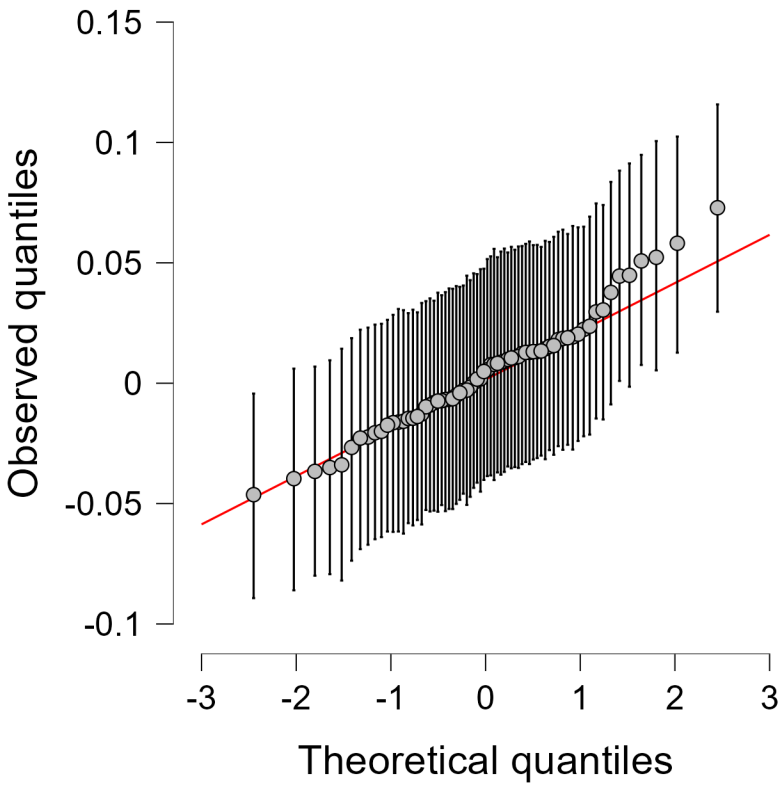
Note. All models include subject, and random slopes for all repeated measures factors.

Analysis of Effects

Effects	P(incl)	P(excl)	P(incl|data)	P(excl|data)	Log(BF_{incl})
task	0.400	0.400	0.729	0.003	5.567
dyad type	0.400	0.400	0.607	0.125	1.576
task ✻ dyad type	0.200	0.200	0.268	0.604	−0.813

Note. Compares models that contain the effect to equivalent models stripped of the effect. Higher-order interactions are excluded. Analysis suggested by Sebastiaan Mathôt.

Model Averaged Q-Q Plot



Descriptives

Descriptives

task	dyad type	N	Mean	SD	SE	Coefficient of Variation	95% Credible Interval	
							Lower	Upper
hobbies	heterogeneous	21	0.401	0.054	0.012	0.134	0.377	0.426
	homogeneous	14	0.361	0.034	0.009	0.095	0.342	0.381
mealplanning	heterogeneous	21	0.366	0.041	0.009	0.111	0.348	0.384
	homogeneous	14	0.337	0.032	0.009	0.095	0.319	0.356