Matrix type	Mean Sum intra SOLO	Mean Sum intra JOINT	STD Sum intra SOLO	STD Sum intra JOINT	Mean Sum inter SOLO	Mean Sum inter JOINT	STD Sum inter SOLO	STD Sum inter JOINT	Mean Density intra SOLO	Mean Density intra JOINT	STD Density intra SOLO	STD Density intra JOINT
1. Cross-attention on Layer 0	623	603	123	120	510	530	132	130	0.553	0.535	0.036	0.029
2. Cross-attention on Layer 1	447	461	41	50	262	248	94	88	0.641	0.660	0.084	0.082
3. Average of cross-attentions	775	758	114	125	594	611	123	109	0.568	0.555	0.030	0.026
4. Element-wise product between cross-attentions	323	326	44	34	122	120	38	36	0.727	0.734	0.075	0.063
5. Self-attention on Layer 0	1103	1096	202	210	1038	1045	208	198	0.516	0.512	0.013	0.009
6. Self -attention on Layer 1	905	872	114	120	762	795	133	105	0.545	0.523	0.037	0.015
7. Average of self-attentions	1137	1109	138	154	993	1021	170	140	0.535	0.521	0.026	0.010
8. Element-wise product between self-attentions	720	688	91	105	580	613	125	89	0.557	0.529	0.045	0.017
9. Average of all the attention on every layer	1085	1060	128	119	871	897	123	124	0.555	0.542	0.024	0.018
10. Element-wise product between all the attention on every layer	273	270	49	34	90	93	39	34	0.755	0.751	0.092	0.061
11. Element-wise product between the averages of cross and self-attention	694	667	138	139	477	505	132	124	0.596	0.571	0.040	0.031

Matrix type	Mean Density inter SOLO	Mean Density inter JOINT	STD Density inter SOLO	STD Density inter JOINT	Mean Divisibility SOLO	Mean Divisibility JOINT	STD Divisibility SOLO	STD Divisibility JOINT	Mean Modularity SOLO	Mean Modularity JOINT	STD Modularity SOLO	STD Modularity JOINT
1. Cross-attention on Layer 0	0.447	0.465	0.036	0.029	0.691	0.683	0.018	0.014	0.076	0.066	0.068	0.065
2. Cross-attention on Layer 1	0.359	0.340	0.084	0.082	0.739	0.749	0.048	0.047	0.142	0.183	0.110	0.107
3. Average of cross-attentions	0.432	0.445	0.030	0.026	0.699	0.692	0.015	0.012	0.093	0.088	0.052	0.052
4. Element-wise product between cross-attentions	0.273	0.266	0.075	0.063	0.788	0.792	0.046	0.041	0.244	0.256	0.077	0.087
5. Self-attention on Layer 0	0.484	0.488	0.013	0.009	0.674	0.672	0.006	0.004	0.027	0.032	0.033	0.029
6. Self -attention on Layer 1	0.455	0.477	0.037	0.015	0.688	0.677	0.018	0.007	0.062	0.030	0.070	0.048
7. Average of self-attentions	0.465	0.479	0.026	0.010	0.683	0.676	0.012	0.005	0.050	0.034	0.052	0.033
8. Element-wise product between self-attentions	0.443	0.471	0.045	0.017	0.694	0.680	0.022	0.008	0.067	0.039	0.080	0.055
9. Average of all the attention on every layer	0.445	0.458	0.024	0.018	0.692	0.686	0.012	0.008	0.075	0.068	0.047	0.032
10. Element-wise product between all the attention on every layer	0.245	0.249	0.092	0.061	0.807	0.803	0.060	0.040	0.239	0.254	0.099	0.073
11. Element-wise product between the averages of cross and self-attention	0.404	0.429	0.040	0.031	0.713	0.700	0.020	0.015	0.108	0.106	0.059	0.057

Matrix type	Sum intra-subject				Sum inter-subject			
	MEAN		STD		MEAN		STD	
	Solo	Joint	Solo	Joint	Solo	Joint	Solo	Joint
1. Cross-attention on Layer 0	623	603	123	120	510	530	132	130
2. Cross-attention on Layer 1	447	461	41	50	262	248	94	88
3. Average of cross-attentions	775	758	114	125	594	611	123	109
4. Element-wise product between cross-attentions	323	326	44	34	122	120	38	36
5. Self-attention on Layer 0	1103	1096	202	210	1038	1045	208	198
6. Self -attention on Layer 1	905	872	114	120	762	795	133	105
7. Average of self-attentions	1137	1109	138	154	993	1021	170	140
8. Element-wise product between self-attentions	720	688	91	105	580	613	125	89
9. Average of all the attention on every layer	1085	1060	128	119	871	897	123	124
10. Element-wise product between all the attention on every layer	273	270	49	34	90	93	39	34
11. Element-wise product between the averages of cross and self-attention	694	667	138	139	477	505	132	124

Matrix type	Density intra-subject				Density inter-subject			
	MEAN		STD		MEAN		STD	
	Solo	Joint	Solo	Joint	Solo	Joint	Solo	Joint
1. Cross-attention on Layer 0	0.553	0.535	0.036	0.029	0.447	0.465	0.036	0.029
2. Cross-attention on Layer 1	0.641	0.660	0.084	0.082	0.359	0.340	0.084	0.082
3. Average of cross-attentions	0.568	0.555	0.030	0.026	0.432	0.445	0.030	0.026
4. Element-wise product between cross-attentions	0.727	0.734	0.075	0.063	0.273	0.266	0.075	0.063
5. Self-attention on Layer 0	0.516	0.512	0.013	0.009	0.484	0.488	0.013	0.009
6. Self -attention on Layer 1	0.545	0.523	0.037	0.015	0.455	0.477	0.037	0.015
7. Average of self-attentions	0.535	0.521	0.026	0.010	0.465	0.479	0.026	0.010
8. Element-wise product between self-attentions	0.557	0.529	0.045	0.017	0.443	0.471	0.045	0.017
9. Average of all the attention on every layer	0.555	0.542	0.024	0.018	0.445	0.458	0.024	0.018
10. Element-wise product between all the attention on every layer	0.755	0.751	0.092	0.061	0.245	0.249	0.092	0.061
11. Element-wise product between the averages of cross and self-attention	0.596	0.571	0.040	0.031	0.404	0.429	0.040	0.031

Matrix type	Divisibility				Modularity			
	MEAN		STD		MEAN		STD	
	Solo	Joint	Solo	Joint	Solo	Joint	Solo	Joint
1. Cross-attention on Layer 0	0.691	0.683	0.018	0.014	0.076	0.066	0.068	0.065
2. Cross-attention on Layer 1	0.739	0.749	0.048	0.047	0.142	0.183	0.110	0.107
3. Average of cross-attentions	0.699	0.692	0.015	0.012	0.093	0.088	0.052	0.052
4. Element-wise product between cross-attentions	0.788	0.792	0.046	0.041	0.244	0.256	0.077	0.087
5. Self-attention on Layer 0	0.674	0.672	0.006	0.004	0.027	0.032	0.033	0.029
6. Self -attention on Layer 1	0.688	0.677	0.018	0.007	0.062	0.030	0.070	0.048
7. Average of self-attentions	0.683	0.676	0.012	0.005	0.050	0.034	0.052	0.033
8. Element-wise product between self-attentions	0.694	0.680	0.022	0.008	0.067	0.039	0.080	0.055
9. Average of all the attention on every layer	0.692	0.686	0.012	0.008	0.075	0.068	0.047	0.032
10. Element-wise product between all the attention on every layer	0.807	0.803	0.060	0.040	0.239	0.254	0.099	0.073
11. Element-wise product between the averages of cross and self-attention	0.713	0.700	0.020	0.015	0.108	0.106	0.059	0.057

Mean Density inter SOLO	Mean Density inter JOINT	STD Density inter SOLO	STD Density inter JOINT	Mean Divisibility SOLO	Mean Divisibility JOINT	STD Divisibility SOLO	STD Divisibility JOINT	Mean Modularity SOLO	Mean Modularity JOINT	STD Modularity SOLO	STD Modularity JOINT	Matrix type
0.447	0.465	0.036	0.029	0.691	0.683	0.018	0.014	0.076	0.066	0.068	0.065	**1. Cross-attention on Layer 0**
0.359	0.340	0.084	0.082	0.739	0.749	0.048	0.047	0.142	0.183	0.110	0.107	**2. Cross-attention on Layer 1**
0.432	0.445	0.030	0.026	0.699	0.692	0.015	0.012	0.093	0.088	0.052	0.052	**3. Average of cross-attentions**
0.273	0.266	0.075	0.063	0.788	0.792	0.046	0.041	0.244	0.256	0.077	0.087	**4. Element-wise product between cross-attentions**
0.484	0.488	0.013	0.009	0.674	0.672	0.006	0.004	0.027	0.032	0.033	0.029	**5. Self-attention on Layer 0**
0.455	0.477	0.037	0.015	0.688	0.677	0.018	0.007	0.062	0.030	0.070	0.048	**6. Self -attention on Layer 1**
0.465	0.479	0.026	0.010	0.683	0.676	0.012	0.005	0.050	0.034	0.052	0.033	**7. Average of self-attentions**
0.443	0.471	0.045	0.017	0.694	0.680	0.022	0.008	0.067	0.039	0.080	0.055	**8. Element-wise product between self-attentions**
0.445	0.458	0.024	0.018	0.692	0.686	0.012	0.008	0.075	0.068	0.047	0.032	**9. Average of all the attention on every layer**
0.245	0.249	0.092	0.061	0.807	0.803	0.060	0.040	0.239	0.254	0.099	0.073	**10. Element-wise product between all the attention on every layer**
0.404	0.429	0.040	0.031	0.713	0.700	0.020	0.015	0.108	0.106	0.059	0.057	**11. Element-wise product between the averages of cross and self-attention**