

Supplementary Information for “E-Mail Network Patterns and Body Language Predict Risk-taking Attitude”

Table S1. Descriptive analysis of variables of Study A (N=34).

	Variable	Mean	Std. Dev.	Min	Max
Risk-taking	general	3.51	0.47	2.73	4.47
	ethical	2.12	0.84	1.00	5.00
	financial	3.22	0.94	1.67	5.33
	health	2.93	0.91	1.33	4.67
	recreational	3.84	1.24	2.00	6.67
	social	5.43	0.87	3.50	7.00
Risk-willingness	general	8.21	1.06	5.70	10.20
	ethical	7.43	1.53	4.8	10.43
	financial	7.39	1.60	4.60	9.93
	health	9.23	1.59	6.0	12.67
	recreational	9.45	1.94	5.40	13.73
	social	8.24	1.26	5.75	5.50
Network Structure	betweenness centrality	41.72	117.42	1	679
	Closeness centrality	0.11	0.002	0.11	0.12
	Betweenness centrality	14557.45	7336.18	0.0	49301.20
	reach-2	699.84	38.25	678	861
	email-sent	788.56	2609.64	50	14877
	email-received	733.69	1963.75	21	11083
	Contribution index	-0.027	0.32	-0.76	1.0
	betweenness centrality oscillation	41.31	44.46	0	151
	Contribution index oscillation	65.5	43.81	0	144
	ART	15.72	10.78	1.48	41.20
	Nudge	1.14	0.20	1.0	1.75
Virtual Tribe	alternative realities-fatherlanders	0.02	0.03	6.8e-08	0.10
	alternative realities-spiritualism	0.29	0.23	9.0e-4	0.95
	alternative realities-nerds	0.27	0.16	1.0e-3	0.65
	alternative realities-tree huggers	0.42	0.27	0.05	0.99
	personality-stock-traders	0.24	0.14	6.0e-2	0.69
	personality-politicians	0.24	0.17	0.04	0.05
	personality-journalists	0.10	0.08	7.0e-3	0.28
	personality-risk-takers	0.42	0.17	0.14	0.73
	recreation-fashion	0.14	0.11	0.02	0.49
	recreation-art	0.24	0.16	0.02	0.88
	recreation-travel	0.44	0.21	0.05	0.83
	recreation-sport	0.17	0.19	3.0e-2	0.69
	ideology-liberalism	0.58	0.22	0.16	0.98
	ideology-socialism	0.09	0.14	4.56e-06	0.70
	ideology-capitalism	0.30	0.20	6.0e-4	0.71
	ideology-complainers	0.02	0.02	5.43e-07	0.07
lifestyle-yolo	0.09	0.07	2.3e-04	0.23	

	lifestyle-sedentary	0.32	0.19	0.01	0.64
	lifestyle-vegan	0.43	0.29	0.01	0.99
	lifestyle-fitness	0.15	0.11	2.7e-04	0.48
Emotionality	emotion-happy	0.38	0.21	0.02	0.92
	emotion-sad	0.16	0.18	2.0e-3	0.63
	emotion-angry	0.19	0.11	0.03	0.36
	emotion-fear	0.26	0.14	0.01	0.49
	sentiment	0.25	0.02	0.22	0.30

Table S2. Pearson correlation between risk-preference scores as dependent variables and communication signals as independent variables (N=34). Significant values are marked in coloured boxes and the significance level is denoted by stars: * p<0.1, ** p<0.05, *** p<0.01

	Risk-taking						Risk-willingness					
	general	ethical	financial	health	recreational	social	general	ethical	financial	health	recreational	social
degree centrality	-0.206	-0.183	-0.217	-0.093	-0.309*	0.394**	-0.261	0.022	-0.372**	-0.168	-0.363**	-0.063
betweenness centrality	-0.182	-0.171	-0.173	-0.083	-0.269	0.332*	-0.237	0.022	-0.302*	-0.157	-0.32*	-0.098
closeness centrality	-0.184	-0.174	-0.175	-0.036	-0.291	0.316*	-0.24	0.024	-0.297*	-0.105	-0.345*	-0.124
reach-2	-0.387**	-0.091	-0.344*	-0.084	-0.55***	0.287	-0.414**	0.01	-0.392**	-0.2	-0.577***	-0.058
email-sent	-0.199	-0.154	-0.184	-0.039	-0.308*	0.292	-0.247	0.038	-0.294	-0.111	-0.355**	-0.132
email-received	-0.207	-0.162	-0.174	-0.034	-0.315*	0.273	-0.256	0.026	-0.283	-0.097	-0.359**	-0.141
contribution index	-0.067	0.056	0.015	-0.073	-0.072	-0.073	-0.094	0.084	-0.045	-0.123	-0.093	0.019
betweenness centrality oscillation	-0.623***	-0.293	-0.331*	-0.37**	-0.481***	0.027	-0.446**	-0.167	-0.306*	-0.312*	-0.492***	-0.019
contribution index oscillation	-0.516***	-0.067	-0.344**	-0.045	-0.481***	-0.229	-0.25	-0.051	-0.264	-0.041	-0.391**	-0.262
ART	-0.478***	-0.024	-0.227	-0.077	-0.59***	-0.103	-0.243	0.028	-0.028	-0.059	-0.524***	0.002
Nudge	-0.196	0.114	-0.175	0.186	-0.311*	-0.202	-0.084	0.116	-0.058	0.171	-0.256	-0.316*
alternative realities-fatherlanders	0.078	0.092	0.023	0.199	0.039	-0.168	-0.033	-0.016	0.153	0.22	0.01	-0.109
alternative realities-spiritualism	0.018	0.356**	0.249	0.125	-0.187	-0.433**	-0.014	0.213	0.19	-0.012	-0.107	-0.658***
alternative realities-nerds	-0.215	-0.039	-0.079	-0.152	-0.166	-0.064	-0.122	-0.101	0.078	-0.057	-0.097	-0.021
alternative realities-tree huggers	0.409**	0.128	0.19	0.439**	0.2	0.034	0.255	0.124	0.135	0.325*	0.161	-0.152
personality-stock-traders	-0.095	-0.171	-0.124	-0.018	-0.032	0.106	-0.036	-0.039	-0.165	0.019	0.022	-0.081
personality-politicians	-0.52***	-0.294	-0.209	-0.202	-0.649***	0.242	-0.538***	-0.302*	-0.32*	-0.284	-0.716***	0.031
personality-journalists	0.415**	0.529***	0.087	0.219	0.313*	-0.157	0.349**	0.507***	0.169	0.127	0.279	-0.206
personality-risk-takers	-0.285	-0.117	-0.146	-0.046	-0.274	-0.06	-0.183	-0.161	-0.131	-0.099	-0.25	0.08
recreation-fashion	-0.004	-0.234	0.139	-0.091	0.053	0.085	-0.017	-0.17	0.143	0.002	0.006	0.165
recreation-art	0.486***	0.121	0.599***	0.188	0.385**	-0.197	0.306*	0.207	0.501***	0.177	0.266	-0.08
recreation-travel	-0.06	0.062	-0.173	0.034	-0.002	-0.067	-0.105	-0.021	-0.122	0.018	-0.011	-0.177
recreation-sport	0.571***	0.301*	0.142	0.615***	0.31*	0.019	0.363**	0.186	0.328*	0.543***	0.251	-0.092

ideology-liberalism	0.434**	0.236	-0.006	0.264	0.443**	0.048	0.38**	0.092	0.204	0.388**	0.507***	0.041
ideology-socialism	0.225	-0.046	0.087	-0.002	0.293*	0.142	-0.118	-0.194	-0.044	-0.131	0.091	0.213
ideology-capitalism	-0.095	-0.094	0.031	-0.077	-0.125	0.06	-0.11	-0.072	0.065	-0.082	-0.133	-0.061
ideology-complainers	0.27	0.408**	0.249	0.249	0.092	-0.326**	0.5***	0.484***	0.571***	0.354**	0.225	-0.122
lifestyle-yolo	-0.422**	-0.586***	-0.126	-0.495***	-0.053	0.151	-0.637***	-0.617***	-0.49***	-0.551***	-0.201	0.044
lifestyle-sedentary	0.415**	0.258	-0.054	0.354**	0.417**	-0.033	0.351**	0.173	-0.014	0.488***	0.434**	-0.016
lifestyle-vegan	0.11	0.025	-0.014	0.033	0.11	0.1	0.013	0.099	-0.148	-0.154	0.036	-0.047
lifestyle-fitness	-0.496***	-0.42**	-0.2	-0.554***	-0.142	0.059	-0.437**	-0.424**	-0.358**	-0.478***	-0.172	0.106
sentiment	0.12	0.197	0.168	-0.12	0.299*	0.048	-0.064	-0.029	0.018	-0.032	0.068	0.095
emotion-happy	0.277	-0.018	0.061	0.217	0.444**	-0.161	0.062	-0.07	0.008	0.167	0.443**	-0.249
emotion-sad	-0.524***	-0.425**	0.05	-0.473***	-0.564***	0.237	-0.51	-0.463***	-0.237***	-0.444**	-0.571***	0.138
emotion-angry	-0.081	0.026	-0.011	0.043	-0.004	-0.274	0.039	-0.041	0.138	0.096	0.048	-0.129
emotion-fear	0.176	0.405**	0.026	0.215	0.105	-0.319*	0.288	0.486***	0.271	0.171	0.138	-0.131

Table S3. Descriptive analysis of variables of Study B (N=15).

Variable		Mean	Std. Dev.	Min	Max
Risk-taking	general	3.43	0.51	2.73	4.40
	ethical	2.17	0.73	1.00	3.83
	financial	3.10	1.01	1.67	5.33
	health	3.01	0.87	1.65	4.67
	recreational	3.61	1.24	1.83	6.17
	social	5.28	0.88	3.67	7.00
Risk-willingness	general	8.22	1.27	5.70	10.20
	ethical	7.49	1.30	5.10	9.43
	financial	7.42	1.74	4.60	9.93
	health	9.21	1.81	6.00	12.67
	recreational	9.28	2.12	4.40	13.83
	social	7.72	1.02	5.75	9.41
Movement Sensor	avg-AccX	4.23	0.43	3.31	5.15
	avg-AccY	5.21	0.57	3.87	6.05
	avg-AccZ	5.00	0.58	3.96	6.08
	var-AccX	2.72	0.77	0.50	3.58
	var-AccY	2.50	0.44	1.40	3.16
	var-AccZ	2.69	.6018133	1.06	3.44
Physiological sensor	avg-bpm	83.88	7.16	68.05	92.15
	var-bpm	4.10	1.68	2.07	7.04
Mood state	avg-pleasant	1.43	0.26	1.02	1.78
	avg-active	1.00	0.30	0.37	1.52
	var-pleasant	0.32	0.18	0.09	0.73
	var-active	0.28	0.14	0.00	0.47

Table S4. Pearson correlation between risk-preference scores and body signals in terms of sensor data and mood data (N=15). Similarly to Table 2, we use coloured boxes to denote significant values with the corresponding significance level.

	Risk-taking						Risk-willingness					
	general	ethical	financial	health	recreational	social	general	ethical	financial	health	recreational	social
avg-AccX	0.188	-0.023	-0.07	0.116	0.421	0.648***	-0.14	0.132	-0.092	-0.199	-0.112	0.628**
avg-AccY	-0.325	0.164	-0.398	-0.418	0.103	0.340	-0.38	0.451*	-0.566**	-0.533**	-0.452*	0.379
avg-AccZ	-0.259	0.02	-0.351	-0.272	0.141	0.415	-0.198	0.018	-0.413	-0.274	-0.171	0.390
var-AccX	0.614**	0.488**	-0.055	0.563**	0.069	0.391	-0.29	0.55**	-0.077	0.325	0.155	0.449*
var-AccY	0.135	0.197	-0.504**	0.214	-0.108	0.318	-0.152	0.545**	-0.566**	0.145	-0.111	0.263
var-AccZ	0.334	0.285	-0.121	0.352	-0.188	0.505**	-0.033	0.509**	-0.167	0.057	-0.093	0.339
avg-bpm	0.296	0.397	-0.372	0.295	-0.083	0.217	0.016	0.585**	-0.333	0.017	-0.138	0.039
var-bpm	-0.336	-0.283	0.064	-0.209	-0.729***	0.105	-0.728***	-0.026	-0.368	-0.604**	-0.744***	-0.337
avg-pleasant	0.020	-0.354	0.238	0.069	-0.204	-0.052	-0.192	-0.282	0.036	0.032	-0.17	0.213
avg-active	0.272	0.231	0.62**	0.257	-0.133	0.273	0.076	0.041	0.578**	0.2	-0.213	-0.048
var-pleasant	0.208	-0.129	0.442*	0.089	0.142	0.426	-0.2	-0.148	0.164	-0.107	-0.15	0.131
var-active	0.117	-0.073	0.161	0.127	0.469*	0.205	0.15	-0.206	0.447	0.188	0.285	0.423