

Table S5

Mean Prediction Performance per Personality Dimension and Variable Group for Random Forest Models

Personality Dimension	Full Predictor Set	Habitual Listening Behavior	Audio Characteristics	Lyrics Characteristics	Lyrics Emotionality	Lyrics Topics	Lyrics Word Embeddings	Other Lyrics Characteristics
(O) Openness	0.24 [0.11,0.37]	0.05 [-0.06,0.16]	0.20 [0.09,0.31]	0.23 [0.10,0.36]	0.06 [-0.05,0.18]	0.17 [0.06,0.28]	0.23 [0.11,0.36]	0.17 [0.06,0.27]
(O1) O. to imagination	0.24 [0.13,0.36]	0.04 [-0.08,0.16]	0.13 [0.02,0.25]	0.23 [0.12,0.35]	0.10 [0.00,0.20]	0.19 [0.07,0.30]	0.23 [0.11,0.34]	0.09 [-0.01,0.20]
(O2) O. to aesthetics	0.20 [0.09,0.32]	0.12 [0.02,0.23]	0.26 [0.15,0.37]	0.19 [0.08,0.30]	0.05 [-0.06,0.15]	0.07 [-0.02,0.16]	0.19 [0.08,0.31]	0.16 [0.05,0.27]
(O3) O. to feelings	0.23 [0.12,0.34]	0.07 [-0.03,0.17]	0.29 [0.19,0.39]	0.21 [0.11,0.32]	0.04 [-0.07,0.16]	0.14 [0.03,0.25]	0.21 [0.10,0.33]	0.09 [-0.03,0.21]
(O4) O. to actions	0.03 [-0.08,0.14]	0.09 [-0.02,0.21]	0.05 [-0.06,0.16]	0.03 [-0.08,0.13]	0.04 [-0.08,0.15]	0.00 [-0.12,0.11]	0.03 [-0.08,0.13]	0.13 [0.02,0.25]
(O5) O. to ideas	0.17 [0.05,0.29]	-0.04 [-0.16,0.08]	0.09 [-0.02,0.20]	0.16 [0.05,0.28]	0.08 [-0.04,0.19]	0.16 [0.05,0.27]	0.16 [0.04,0.27]	0.24 [0.14,0.34]
(O6) O. to value & norm	0.15 [0.04,0.26]	0.08 [-0.03,0.19]	0.15 [0.04,0.26]	0.15 [0.04,0.26]	-0.03 [-0.15,0.08]	0.14 [0.04,0.24]	0.15 [0.04,0.26]	0.09 [-0.02,0.20]
(C) Conscientiousness	0.12 [0.00,0.24]	0.06 [-0.05,0.17]	0.07 [-0.05,0.19]	0.12 [0.00,0.24]	0.03 [-0.10,0.15]	0.15 [0.03,0.27]	0.12 [0.00,0.24]	0.05 [-0.06,0.17]
(C1) Competence	0.01 [-0.11,0.12]	-0.01 [-0.12,0.10]	0.04 [-0.07,0.15]	0.01 [-0.10,0.13]	-0.03 [-0.15,0.09]	0.09 [-0.03,0.20]	0.01 [-0.10,0.12]	0.03 [-0.08,0.14]
(C2) Love of order	0.16 [0.04,0.27]	0.06 [-0.05,0.16]	0.17 [0.07,0.27]	0.16 [0.04,0.28]	0.02 [-0.09,0.13]	0.13 [0.02,0.24]	0.16 [0.04,0.27]	0.06 [-0.05,0.18]
(C3) Sense of duty	0.10 [-0.01,0.21]	0.10 [-0.01,0.20]	-0.04 [-0.15,0.07]	0.11 [0.00,0.22]	-0.10 [-0.20,0.00]	0.16 [0.06,0.26]	0.11 [0.00,0.22]	0.02 [-0.10,0.13]
(C4) Ambition	0.14 [0.01,0.27]	0.08 [-0.02,0.17]	-0.03 [-0.13,0.08]	0.15 [0.02,0.27]	0.03 [-0.09,0.15]	0.10 [0.01,0.19]	0.14 [0.02,0.27]	0.11 [0.00,0.21]
(C5) Discipline	0.04 [-0.07,0.14]	0.01 [-0.09,0.11]	0.01 [-0.11,0.12]	0.05 [-0.06,0.15]	0.09 [-0.02,0.20]	0.10 [-0.01,0.20]	0.04 [-0.06,0.15]	0.13 [0.03,0.22]
(C6) Caution	0.05 [-0.05,0.16]	0.12 [0.02,0.21]	0.00 [-0.11,0.12]	0.06 [-0.05,0.17]	0.10 [-0.01,0.21]	0.08 [-0.04,0.19]	0.05 [-0.06,0.16]	-0.01 [-0.14,0.11]
(E) Extraversion	0.06 [-0.06,0.18]	0.06 [-0.06,0.18]	0.09 [-0.02,0.21]	0.06 [-0.06,0.18]	0.02 [-0.09,0.13]	0.10 [-0.02,0.22]	0.06 [-0.07,0.18]	0.12 [0.03,0.22]
(E1) Friendliness	0.13 [0.00,0.25]	0.12 [0.02,0.23]	0.16 [0.05,0.27]	0.13 [0.00,0.26]	0.08 [-0.04,0.20]	0.07 [-0.04,0.19]	0.13 [0.01,0.26]	0.07 [-0.04,0.19]
(E2) Sociableness	0.11 [0.00,0.22]	0.11 [0.00,0.22]	0.16 [0.04,0.28]	0.10 [-0.01,0.22]	0.03 [-0.08,0.15]	0.13 [0.03,0.24]	0.11 [0.00,0.22]	0.15 [0.03,0.27]
(E3) Assertiveness	0.06 [-0.06,0.18]	-0.11 [-0.22,0.00]	-0.01 [-0.12,0.09]	0.07 [-0.05,0.20]	-0.04 [-0.16,0.07]	0.10 [0.00,0.20]	0.05 [-0.06,0.17]	0.17 [0.07,0.28]
(E4) Dynamism	0.08 [-0.03,0.19]	-0.03 [-0.14,0.09]	0.04 [-0.08,0.17]	0.08 [-0.03,0.19]	0.05 [-0.06,0.16]	0.13 [0.02,0.24]	0.07 [-0.03,0.18]	0.15 [0.03,0.26]
(E5) Adventurousness	0.05 [-0.07,0.17]	0.15 [0.04,0.26]	0.04 [-0.07,0.15]	0.05 [-0.07,0.17]	0.00 [-0.12,0.12]	0.10 [0.00,0.21]	0.05 [-0.07,0.17]	0.09 [-0.03,0.21]
(E6) Cheerfulness	0.01 [-0.12,0.15]	-0.02 [-0.15,0.10]	-0.07 [-0.18,0.04]	0.02 [-0.11,0.15]	0.01 [-0.09,0.11]	-0.06 [-0.18,0.06]	0.03 [-0.11,0.16]	0.07 [-0.03,0.17]
(A) Agreeableness	0.04 [-0.07,0.15]	0.12 [-0.01,0.24]	0.09 [-0.02,0.20]	0.03 [-0.08,0.14]	-0.03 [-0.14,0.07]	0.02 [-0.10,0.14]	0.03 [-0.08,0.15]	0.01 [-0.11,0.13]
(A1) Willingness to trust	0.11 [-0.01,0.24]	0.06 [-0.03,0.16]	0.08 [-0.04,0.20]	0.12 [-0.01,0.24]	0.14 [0.04,0.25]	0.10 [0.00,0.21]	0.10 [-0.02,0.23]	0.09 [-0.03,0.20]

Table S5 (continued)

Personality Dimension	Full Predictor Set	Habitual Listening Behavior	Audio Characteristics	Lyrics Characteristics	Lyrics Emotionality	Lyrics Topics	Lyrics Word Embeddings	Other Lyrics Characteristics
(A2) Genuineness	0.10 [-0.01,0.22]	0.14 [0.02,0.25]	0.18 [0.08,0.28]	0.09 [-0.02,0.21]	0.06 [-0.05,0.16]	0.09 [-0.03,0.20]	0.10 [-0.02,0.21]	0.10 [-0.01,0.21]
(A3) Helpfulness	-0.05 [-0.16,0.07]	0.06 [-0.06,0.17]	0.02 [-0.10,0.13]	-0.06 [-0.17,0.06]	-0.02 [-0.14,0.09]	-0.02 [-0.12,0.08]	-0.05 [-0.17,0.06]	-0.06 [-0.18,0.05]
(A4) Obligingness	0.00 [-0.12,0.11]	0.18 [0.07,0.29]	0.01 [-0.11,0.13]	-0.04 [-0.17,0.08]	-0.08 [-0.20,0.03]	0.01 [-0.12,0.14]	-0.04 [-0.16,0.08]	-0.08 [-0.20,0.03]
(A5) Modesty	-0.08 [-0.18,0.02]	0.03 [-0.09,0.14]	-0.03 [-0.15,0.09]	-0.06 [-0.17,0.04]	0.00 [-0.11,0.11]	-0.07 [-0.18,0.04]	-0.06 [-0.17,0.05]	-0.05 [-0.17,0.08]
(A6) Good naturedness	0.06 [-0.06,0.18]	0.09 [-0.02,0.21]	0.11 [-0.02,0.23]	0.05 [-0.07,0.16]	0.01 [-0.11,0.13]	0.03 [-0.07,0.14]	0.05 [-0.07,0.17]	0.08 [-0.04,0.20]
(ES) Emotional Stability	-0.06 [-0.19,0.07]	0.01 [-0.10,0.11]	0.04 [-0.07,0.15]	-0.06 [-0.19,0.06]	-0.08 [-0.20,0.04]	-0.10 [-0.23,0.02]	-0.06 [-0.19,0.06]	0.12 [0.02,0.22]
(ES1) Carefreeness	0.06 [-0.05,0.18]	-0.02 [-0.12,0.08]	0.09 [-0.02,0.19]	0.05 [-0.07,0.17]	-0.09 [-0.20,0.03]	-0.08 [-0.18,0.03]	0.06 [-0.07,0.18]	0.07 [-0.03,0.17]
(ES2) Equanimity	-0.01 [-0.10,0.08]	0.08 [-0.04,0.19]	0.04 [-0.08,0.16]	-0.01 [-0.11,0.08]	0.01 [-0.09,0.12]	-0.07 [-0.18,0.04]	-0.01 [-0.10,0.08]	0.02 [-0.09,0.13]
(ES3) Positive mood	-0.03 [-0.13,0.07]	-0.06 [-0.18,0.05]	-0.04 [-0.14,0.07]	-0.03 [-0.13,0.07]	-0.01 [-0.12,0.10]	-0.06 [-0.17,0.04]	-0.02 [-0.12,0.09]	0.05 [-0.06,0.16]
(ES4) Self consciousness	0.08 [-0.05,0.20]	0.03 [-0.07,0.13]	0.02 [-0.08,0.13]	0.08 [-0.04,0.20]	0.01 [-0.09,0.11]	0.12 [0.02,0.22]	0.08 [-0.04,0.19]	0.09 [-0.02,0.20]
(ES5) Self control	-0.11 [-0.23,0.01]	0.10 [-0.03,0.22]	-0.13 [-0.24,-0.02]	-0.10 [-0.22,0.02]	-0.03 [-0.16,0.09]	0.05 [-0.07,0.17]	-0.10 [-0.23,0.02]	-0.03 [-0.14,0.08]
(ES6) Emo. robustness	-0.04 [-0.16,0.07]	-0.12 [-0.24,0.00]	-0.06 [-0.17,0.04]	-0.03 [-0.15,0.08]	-0.07 [-0.17,0.04]	-0.04 [-0.16,0.08]	-0.02 [-0.13,0.10]	0.15 [0.03,0.26]

Note. Prediction performance when using all music listening variables (i.e., the Full Predictor Set) vs. each group of variables separately for predicting personality scales. One benchmark was conducted for each personality outcome that was previously predicted with a minimum accuracy $r_s \geq .10$ based on the full predictor set (see Table 2). The Spearman rank order correlation (r_s) between predicted and measured personality scores was determined for each of the 100 resampling iterations of the cross-validation scheme (10x10 CV). This table provides means and 95% variance-corrected t-confidence intervals across iterations. Please note, that CIs are purely for descriptive purposes and that they do not consider multiple testing. The group of “Lyrics Characteristics” comprised the four lower-level groups of Lyrics’ Emotionality, Topics, Word Embeddings, and other Lyrics Characteristics (see Table 1).