

Supplementary Table 3 - Genetic Factor Structure of Personality Traits

NEO-PI-R Facet	N	E	O	A	C	VCC ^a
N1: Anxiety	.87	-.02	-.22	.09	.08	.94
N2: Angry Hostility	.79	-.19	-.25	-.35	-.01	.91
N3: Depression	.81	-.16	-.32	-.01	-.32	.93
N4: Self-Consciousness	.71	-.25	-.35	.00	-.34	.93
N5: Impulsiveness	.45	.18	.36	-.31	-.41	.86
N6: Vulnerability	.82	-.07	-.27	.20	-.48	.97
E1: Warmth	-.20	.72	.21	.45	.28	.99
E2: Gregariousness	-.35	.71	-.21	.17	-.03	.93
E3: Assertiveness	-.33	.51	.44	-.21	.42	.96
E4: Activity	.13	.47	.18	-.23	.65	.96
E5: Excitement Seeking	-.01	.67	.04	-.43	-.11	.99
E6: Positive Emotions	-.40	.67	.39	.10	.21	.88
O1: Fantasy	-.03	.44	.78	-.02	-.18	.89
O2: Aesthetics	.06	.42	.70	.14	.02	.87
O3: Feelings	.10	.41	.81	.07	.19	.90
O4: Actions	-.24	.31	.51	-.01	-.23	.94
O5: Ideas	-.15	.25	.80	.02	-.03	.91
O6: Values	-.28	-.14	.70	-.01	-.16	.93
A1: Trust	-.41	.36	.19	.55	.00	.98
A2: Straightforwardness	.08	-.17	.10	.82	.28	.96
A3: Altruism	.11	.37	.03	.71	.39	.94
A4: Compliance	-.20	.17	-.28	.69	-.01	.88
A5: Modesty	.20	-.41	-.19	.76	.04	.95
A6: Tender-Mindedness	.28	.23	.53	.73	-.09	.88
C1: Competence	-.41	.36	.05	.15	.62	.96
C2: Order	-.08	.12	-.35	-.02	.69	.98
C3: Dutifulness	-.05	.04	.02	.35	.80	.97
C4: Achievement Striving	-.25	.25	-.01	-.36	.78	.94
C5: Self-Discipline	-.35	-.05	.01	.18	.86	.95
C6: Deliberation	-.39	.07	-.43	.22	.64	.79
Congruence coefficient ^b	.94	.89	.87	.96	.97	.93

Note. These are Procrustes-rotated principal components from the genetic correlations among the 30 facets of the NEO-PI-R, targeted to the American normative factor structure. The largest loading for each facet is given in boldface. N = Neuroticism. E = Extraversion. O = Openness. A = Agreeableness. C = Conscientiousness. VCC = Variable congruence coefficient. ^aTotal congruence coefficient given in last row. ^bFactor congruence coefficient with target matrix.

This analysis tests the hypothesis that the genetic structure mirrors the phenotypic structure of personality traits; targeted rotation offers a more direct test of this hypothesis than cluster analysis and provides quantitative measures of the phenotypic structure replicability at genetic level. As indicated by the high factor congruence coefficients ($> .85$), the genetic structure replicates the phenotypic factor structure well. This analysis suggests that the phenotypic covariation of personality traits is genetically rooted, or in other words, there are shared genes that underlie the facets that define each factor.