#### Introduction

Table A.1. Most common Big Five models

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Taxonomy | Domains | Facets | Reliability | Nom.net. /Number of items | |
| HEXACO-PI-R (Lee & Ashton, 2016) | | | | 100 items | |
|  | Humility |  |  |  | |  |
|  |  | Sincerity | 0.66 |  | |  |
|  |  | Fairness | 0.76 |
|  |  | Greed Avoidance | 0.81 | - Social Dominance  Orientation (-.45)  (Leone et al., 2012) | |  |
|  |  | Modesty | 0.68 |  | |  |
|  | Emotionality |  |  |  | |  |
|  |  | Fearfulness | 0.70 |  | |  |
|  |  | Anxiety | 0.64 |  | |  |
|  |  | Dependence | 0.80 |  | |  |
|  |  | Sentimentality | 0.70 | - Callous affect (-.68)  (Gaughan et al., 2012);  + Diversity **(**.22**)**  (McAbee et al., 2014) |
|  | Extraversion |  |  |  | |  |
|  |  | Social Self-Esteem | 0.67 | + Adaptability / Life skills (.25)  **(**McAbee et al., 2014**)** | |  |
|  |  | Social Boldness | 0.76 | + Emision-reduction behavior  (Brick & Lewis, 2014)  + Leadership (.36) (McAbee et al., 2014) |
|  |  | Sociability | 0.71 |  | |  |
|  |  | Liveliness | 0.76 | + Adaptability / Life skills (.25),  + Social responsability (.22),  + Health **(**.21**)** (McAbee et al., 2014) |
|  | Agreeableness |  |  |  | |  |
|  |  | Forgivingness | 0.74 |  | |  |
|  |  | Gentleness | 0.66 |  | |  |
|  |  | Flexibility | 0.61 |  | |  |
|  |  | Patience | 0.79 |  | |  |
|  | Conscientiousness |  |  |  | |  |
|  |  | Organization | 0.74 |  | |  |
|  |  | Diligence | 0.70 | + GPA (.31),  + Adaptability / Life skills (.37),  + Perseverance **(**.50**)**  (McAbee et al., 2014) |
|  |  | Perfectionism | 0.69 | + Emision-reduction behavior **(**.25**)**  (Brick & Lewis, 2014) | |  |
|  |  | Prudence | 0.69 | - Erratic life-style **(**-.58**)**  (Gaughan et al., 2012) | |  |
|  | Openness |  |  |  | |  |
|  |  | Aesthetic | 0.66 |
|  |  | Unconventionality | 0.52 | - Political Conservatism **(**.29**)**  (Brick et al., 2014) | |  |
|  |  | Creativity | 0.75 |  | |  |
|  |  | Inquisitiveness | 0.66 | + Continuous learning (.30)  **(**McAbee et al, 2014**)** | |  |
| NEO-PI-r (McCrae et al., 2011) | | | | 240 items | |
|  | Neuroticism |  |  |  | |  |
|  |  | Anxiety | 0.78 | - Fearless dominance (-.49)  (Gaughan et al, 2009) | |  |
|  |  | Angry Hostility | 0.75 |
|  |  | Depression | 0.81 |
|  |  | Self-Consciousness | 0.68 |
|  |  | Impulsiveness | 0.70 | + Alcohol related problems (.29)  (Ruiz et al., 2003) | |  |
|  |  | Vulnerability | 0.77 |  | |  |
|  | Extraversion |  |  |  | |  |
|  |  | Warmth | 0.73 |
|  |  | Gregariousness | 0.72 | - Autism-spectrum Quotient (-.43)  **(**Wakabayashi et al., 2006**)** | |  |
|  |  | Assertiveness | 0.77 |  | |  |
|  |  | Activity | 0.63 |  | |  |
|  |  | Excitement Seeking | 0.65 | + Fearless dominance **(**.53**)**  (Gaughan et al, 2009) | |  |
|  |  | Positive Emotions | 0.73 |
|  | Openness |  |  |  | |  |
|  |  | Fantasy | 0.76 |  | |  |
|  |  | Aesthetics | 0.76 |  | |  |
|  |  | Feelings | 0.66 | - Alexithymia (-.55) (Bagby et al., 1994) | |  |
|  |  | Actions | 0.58 |  | |  |
|  |  | Ideas | 0.80 |  | |  |
|  |  | Values | 0.67 | + SAT verbal (.26)  **(**Noftle et al., 2007**)** | |  |
|  | Agreeableness |  |  |  | |  |
|  |  | Trust | 0.79 | - Attachment avoidance (-.26)  (Noftle et al., 2006) | |  |
|  |  | Straightforwardness  0.71 | |
|  |  | Altruism | 0.75 |
|  |  | Compliance | 0.59 |  | |  |
|  |  | Modesty | 0.67 |  | |  |
|  |  | Tender-Mindedness | 0.56 | - Callous affect **(**-.56**)**  (Gaughan et al., 2012) | |  |
|  | Conscientiousness |  |  |  | |  |
|  |  | Competence | 0.67 |  | |  |
|  |  | Order | 0.66 |  | |  |
|  |  | Dutifulness | 0.62 | - Dysregulation / Disinhibition (-.49)  **(**Gaughan et al, 2009**)** | |  |
|  |  | Achievement Striving | 0.67 | + Supervisor rating (.23)  (Piedmont et al., 1994) | |  |
|  |  | Self-Discipline | 0.75 |
|  |  | Deliberation | 0.71 | - Erratic life-style (-.57)  (Gaughan et al., 2012);  - Alcohol related problems (-.38)  (Ruiz et al., 2003) |
| BFI-2 (Soto & John, 2016) | | | | 60 items | |
|  | Extraversion |  |  |  | |  |
|  |  | Sociability | 0.83 | - Conformity (-.36),  - Tradition (-.24), +  Stimulation (.21),  + Positive affect **(**.32**)**  (Soto et al., 2016) |
|  |  | Assertiveness | 0.80 | + Power | |  |
|  |  | Energy level | 0.74 | + Purpose in life (.53),  + Self-acceptance (.53),  + Social connectedness **(**.33**)** |
|  | Agreeableness |  |  |  | |  |
|  |  | Compassion | 0.68 | + Benevolence (.47),  - Power (-.44),  + Positive relations **(**.41**)** | |  |
|  |  | Respectfulness | 0.66 | + Conformity **(**.39**)** | |  |
|  |  | Trust | 0.75 | + Universalism (.21), + Likability **(**.25**)** | |  |
|  | Conscientiousness |  |  |  | |  |
|  |  | Organization | 0.76 | + Security **(**.30**)** | |  |
|  |  | Productiveness | 0.74 | - Hedonism (-.35),  + Achievement (.26),  + Environmental mastery (.56) |
|  |  | Responsability | 0.68 | - Stimulation,  + Autonomy | |  |
|  | Negative Emotionality | |  |  | |  |
|  |  | Anxiety | 0.79 | - Autonomy **(**-.32**)** | |  |
|  |  | Depression | 0.74 |
|  |  | Emotional Volatility | 0.70 | - Stress resistance | |  |
|  | Open-mindedness |  |  |  | |  |
|  |  | Intellectual curiosity | 0.78 | + Self-direction (.44),  + Personal growth **(**.50**)** | |  |
|  |  | Aesthetic Sensitivity | 0.67 |  | |  |
|  |  | Creative Imagination | 0.67 |  | |  |
| IPIP-NEO-120 (Johnson, 2014) | | | | 120 items | |
|  | Neuroticism |  |  |  | |  |
|  |  | Anxiety | 0.78 |  | |  |
|  |  | Anger | 0.87 |  | |  |
|  |  | Depression | 0.85 |  | |  |
|  |  | Self-Consciousness | 0.74 |  | |  |
|  |  | Inmoderation | 0.72 | + Hangover symptoms **(**.35**)**  (McAdams et al., 2009) | |  |
|  |  | Vulnerability | 0.76 |  | |  |
|  | Extraversion |  |  |  | |  |
|  |  | Friendliness | 0.81 |  | |  |
|  |  | Gregariousness | 0.79 |  | |  |
|  |  | Assertiveness | 0.85 |  | |  |
|  |  | Activity Level | 0.71 |  | |  |
|  |  | Excitement Seeking | 0.77 | + Alcohol Use (.45),  + Drinking problems **(**.37**)**  (McAdams et al., 2009) | |  |
|  |  | Cheerfulness | 0.80 | + Addictive mobile phone  usage style **(**.28**)** (Siddiqui, 2011) | |  |
|  | Openness to Experience | |  |  | |  |
|  |  | Imagination | 0.83 |  | |  |
|  |  | Aesthetics | 0.76 |  | |  |
|  |  | Emotionality | 0.69 |  | |  |
|  |  | Adventurousness | 0.72 |  | |  |
|  |  | Intellect | 0.75 |  | |  |
|  |  | Liberalism | 0.64 | + Trendy mobile phone  usage style **(**.31**)** (Siddiqui, 2011) | |  |
|  | Agreeableness |  |  |  | |  |
|  |  | Trust | 0.86 |  | |  |
|  |  | Morality | 0.76 | + Thrifty mobile phone  usage style (.48) (Siddiqui, 2011) | |  |
|  |  | Altruism | 0.76 |  | |  |
|  |  | Cooperation | 0.73 |  | |  |
|  |  | Modesty | 0.76 |  | |  |
|  |  | Sympathy | 0.72 |  | |  |
|  | Conscientiousness |  |  |  | |  |
|  |  | Self-Efficacy | 0.63 |  | |  |
|  |  | Orderliness | 0.83 |  | |  |
|  |  | Dutifulness | 0.69 |  | |  |
|  |  | Achievement-striving | 0.80 | + Academic Performance **(**.23**)**  (Rosander et al., 2011) | |  |
|  |  | Self-Discipline | 0.73 | + General health behaviors (.27)  (Hagger-Johnson et al., 2007) | |  |
|  |  | Cautiousness | 0.87 |  | |  |

Note: Reliability stands for internal consistency estimates (Cronbach’s α), retrieved from sources cited in the reliability column. Nom.net stands for nomological network. Coefficients in the nom.net column represent Pearson *r* coefficients. Numbers in the initial row of the predictive validity column represent number of items.

#### Study 1

#### Data analysis procedure

*Exploratory Factor Analysis (EFA).* The first subset of the collected sample was used to identify the number of components underlying the personality items in our dataset, with a top-down approach as proposed by Goldberg (2006). This means that a series of EFAs was run within each item group allocated to a specific Big Five domain. Velicer’s (1976) Minimum Average Partial (MAP) and Horn’s (1965) Parallel Analysis (PA) methods were applied in order to guide the subsequent factor analysis. EFAs were calculated via Mplus (Muthen et al., 2012) using geomin rotation and Maximum Likelihood (ML) estimation. Decisions to retain facets were partly based on model fit information (CFI, RMSEA, SRMR) and partly on the interpretability of the facet solution. Additionally, alternative facet models inspired from other personality measures were considered and compared to the facet structure found. In case of omission of relevant content captured in other models, new items were added a-posteriori.

*Reliability.* Cronbach’s and McDonald’s were estimated for each facet score to provide evidence for the test scores’ internal consistency. For the domains, only McDonald’s was estimated. The second subsample was used to compute these statistics.

*Confirmatory Factor Analysis (CFA).* To verify the structure outlined by EFAs, one CFA per facet was fitted using the second subsample. This has been conducted with R. We restricted the number of possible indicators to a maximum of five per facet in order to obtain facets as balanced as possible (Ziegler, 2014). This selection was done based on item content and pattern of the factor loading matrix. CFAs were fitted using WLSMV (Weighted Least Squares adjusted for Means and Variances) for ordered indicators due to floor and ceiling effects on some item’s response distribution. Model fit was determined based on the usual goodness-of-fit indicators: the Cumulative Fit Index (CFI), for which a score > 0.95 indicates adequate fit; the Root Mean Square of Approximation (RMSEA), for which a value < 0.06 indicates approximate fit; and the Standardized Root Mean Residual (SRMR), for which a value < 0.05 indicates adequate fit.

*Exploratory Structural Equation Modelling (ESEM).* In a third step with the second subsample, the higher order structure of the facets was tested with ESEM (Asparouhov et al., 2009) using facet scores as indicators of the five domains. ESEM was the preferred procedure as it allows to relax the too strict independent clusters model in which CFA is usually performed (Marsh et al., 2010), allowing cross-loadings that would be otherwise constrained to zero, thereby accommodating personality data more realistically. As a control mechanism for content-validity, we eliminated any facet with non-significant loadings from its intended domain. The ESEM model was fitted using geomin oblique rotation and ML estimation, using Mplus.

*Nomological network.* In order to examine preliminary evidence of construct validity of our proposed facet model, a nomological network linking our constructs with external outcomes was tested. This network was constructed by examining associations with a set of linear models and zero-order correlations. Pearson correlations were calculated for each outcome with both facets and domains’ scores. One linear model per domain and per criteria was fitted, using all facets included in the domains as predictors, but excluding the domain sum-scores. Standardized coefficients for each predictor (β) were reported, as well as the of the overall model -to represent associations at the domain level.

**Results**

*EFA*

Table A.2. EFA model fit

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Domain (number of facets according to EFA) | Chi-squared (df) | CFI | RMSEA | SRMR | Eigenvalues | MAP | PA |
| Agreeableness (10) | 6477.67\*\*\* (4363) | 0.837 | 0.039 | 0.034 | 42.99 | 9 | 9 |
| Conscientiousness (10) | 8377.56\*\*\* (5243) | 0.827 | 0.041 | 0.034 | 51.09 | 12 | 9 |
| Extraversion (8) | 4643.64\*\*\* (2620) | 0.837 | 0.046 | 0.036 | 38.25 | 13 | 9 |
| Emotional stability (8) | 9346.97\*\*\* (5987) | 0.836 | 0.039 | 0.034 | 53.50 | 9 | 7 |
| Openness (9) | 8178.52\*\*\* (5142) | 0.824 | 0.040 | 0.036 | 47.41 | 10 | 11 |

Note: \*\*\* means p value < 0.01.

*Nomological Network*

Table A.3. Nomological network

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Satisfaction with life | | | | | GPA | | | | | | Absences | | | | |
|  |  | *r* | stdβ | |  | | *r* | | stdβ | |  | | *r* | | stdβ | |  |
|  | Appreciation | 0.16 | -0.01 | |  | | 0.12 | | -0.03 | |  | | -0.07 | | 0.02 | |  |
|  | Integrity | 0.19 | 0.14\* | |  | | 0.17 | | 0.1 | |  | | -0.11 | | -0.01 | |  |
|  | Low competitiveness | 0.03 | -0.09 | |  | | 0.02 | | -0.13\* | |  | | -0.05 | | 0.04 | |  |
|  | Good faith | 0.25 | 0.2\* | |  | | 0.17 | | 0.11\* | |  | | -0.11 | | -0.08 | |  |
|  | Genuineness | 0.12 | 0.04 | |  | | 0.16 | | 0.14\* | |  | | -0.15 | | -0.15\* | |  |
|  | Altruism | 0.14 | 0.02 | |  | | 0.15 | | 0.07 | |  | | -0.09 | | -0.03 | |  |
| Agreeableness | | 0.16 |  | 0.03/0.08 | | 0.2 | |  | | 0.04/0.06 | | -0.14 | |  | | 0.02/0.03 | |
|  | Dominance | 0.03 | 0.02 | |  | | 0.06 | | 0.06 | |  | | 0.03 | | 0.04 | |  |
|  | Persistence | 0.27 | 0.16\* | |  | | 0.12 | | -0.01 | |  | | -0.16 | | 0 | |  |
|  | Self-discipline | 0.19 | 0.08 | |  | | 0.13 | | 0.07 | |  | | -0.2 | | -0.09 | |  |
|  | Task planning | 0.2 | 0.01 | |  | | 0.16 | | -0.01 | |  | | -0.25 | | -0.14\* | |  |
|  | Goal-orientation | 0.28 | 0.13 | |  | | 0.22 | | 0.15\* | |  | | -0.24 | | -0.08 | |  |
|  | Carefulness | 0.23 | 0.1 | |  | | 0.16 | | 0.03 | |  | | -0.17 | | 0.03 | |  |
|  | Orderliness | 0.11 | -0.07 | |  | | 0.14 | | 0.06 | |  | | -0.2 | | -0.05 | |  |
|  | Wish to work | 0.1 | -0.05 | |  | | 0.11 | | 0.03 | |  | | -0.09 | | 0.03 | |  |
|  | Productivity | 0.23 | 0.07 | |  | | 0.13 | | 0 | |  | | -0.24 | | -0.13\* | |  |
| Conscientiousness | | 0.3 |  | | 0.09/0.13 | | 0.23 | |  | | 0.05/0.06 | | -0.28 | |  | | 0.08/0.10 |
|  | Sociability | 0.26 | 0.09 | |  | | 0.11 | | 0.11 | |  | | -0.03 | | -0.04 | |  |
|  | Wish for affiliation | 0.2 | 0.06 | |  | | 0.06 | | 0 | |  | | 0.01 | | 0.07 | |  |
|  | Positive attitude | 0.49 | 0.52\* | |  | | 0.07 | | 0.03 | |  | | -0.07 | | -0.07 | |  |
|  | Forcefulness | 0.09 | -0.03 | |  | | 0 | | -0.05 | |  | | 0.06 | | 0.07 | |  |
|  | Communicativeness | 0.11 | -0.05 | |  | | 0.06 | | 0.03 | |  | | 0.02 | | -0.01 | |  |
|  | Humor | 0.16 | -0.07 | |  | | 0.02 | | -0.02 | |  | | 0.08 | | 0.13\* | |  |
|  | Conviviality | 0.22 | -0.06 | |  | | 0.05 | | -0.01 | |  | | -0.01 | | 0.01 | |  |
|  | Energy | 0.25 | 0.02 | |  | | 0.06 | | 0.02 | |  | | -0.15 | | -0.18\* | |  |
| Extraversion | | 0.33 |  | | 0.11/0.26 | | 0.05 | |  | | <0.01/0.02 | | 0.02 | |  | | <0.01/0.05 |
|  | Equanimity | 0.22 | 0.02 | |  | | 0.11 | | 0.13\* | |  | | -0.11 | | -0.09 | |  |
|  | Mental balance | 0.53 | 0.59\* | |  | | 0.09 | | 0.13 | |  | | -0.11 | | -0.08 | |  |
|  | Carefreeness | 0.31 | -0.04 | |  | | -0.01 | | -0.11 | |  | | -0.04 | | 0.09 | |  |
|  | Confidence | 0.25 | 0.09\* | |  | | 0.03 | | 0.02 | |  | | -0.02 | | 0.04 | |  |
|  | Drive | 0.27 | -0.05 | |  | | 0.08 | | 0.06 | |  | | -0.15 | | -0.14\* | |  |
|  | Emotional robustness | 0.18 | -0.07 | |  | | -0.05 | | -0.11 | |  | | -0.01 | | 0.04 | |  |
|  | Self-attention | 0.21 | -0.04 | |  | | 0 | | -0.03 | |  | | -0.06 | | -0.01 | |  |
| Emotional stability | | 0.4 |  | | 0.16/0.3 | | 0.05 | |  | | <0.01/0.04 | | -0.1 | |  | | 0.01/0.04 |
|  | Creativity | 0.06 | -0.1 | |  | | -0.01 | | -0.14\* | |  | | 0 | | 0.03 | |  |
|  | Wish for variety | 0.18 | 0.09 | |  | | 0.09 | | 0.06 | |  | | 0.01 | | 0.07 | |  |
|  | Open-mindedness | 0.22 | 0.14\* | |  | | 0.14 | | 0.08 | |  | | -0.07 | | -0.07 | |  |
|  | Interest in reading | 0.07 | -0.02 | |  | | 0.15 | | 0.12\* | |  | | -0.04 | | -0.04 | |  |
|  | Artistic Interests | 0.04 | -0.09 | |  | | 0.04 | | -0.06 | |  | | 0.04 | | 0.09 | |  |
|  | Wish to analyze | 0.13 | -0.05 | |  | | 0.1 | | 0.01 | |  | | 0.01 | | 0.11 | |  |
|  | Willingness to learn | 0.21 | 0.13 | |  | | 0.1 | | -0.04 | |  | | -0.08 | | -0.15\* | |  |
|  | Intellect | 0.24 | 0.16\* | |  | | 0.2 | | 0.17\* | |  | | -0.09 | | -0.08 | |  |
| Openness | | 0.2 |  | | 0.04/0.09 | | 0.15 | |  | | 0.023/0.07 | | -0.03 | |  | | <0.01/0.03 |

Note: \* means significant at alpha = 0.01. For the column, \* means p < 0.01 in the linear regression’s F statistic.

**Study 2**

**Results**

Table A.4. Reliability, CFA and ESEM.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| facets | alpha | omega | chisq(df) | pvalue | cfi | rmsea | ESEM |
| **Agreeableness** |  |  |  |  |  |  |  |
| Appreciation | 0,71 | 0,73 | 15.141(5) | 0.01 | 0,99 | 0,072 | -0,443 |
| Integrity | 0,72 | 0,74 | 34.724(5) | < 0.001 | 0,974 | 0,124 | 0,64 |
| Low competitiveness | 0,72 | 0,72 | 28.603(5) | < 0.001 | 0,964 | 0,11 | 0,774 |
| Good faith | 0,65 | 0,69 | 15.098(5) | 0.01 | 0,991 | 0,072 | -0,204 |
| Genuineness | 0,65 | 0,68 | 29.404(5) | < 0.001 | 0,965 | 0,112 | 0,732 |
| Altruism | 0,4 | 0,41 | 6.636(2) | 0.036 | 0,932 | 0,077 | -0,403 |
| **Conscientiousness** |  |  |  |  |  |  |  |
| Dominance | 0,71 | 0,73 | 19.883(5) | 0.001 | 0,989 | 0,088 | 0,192 |
| Persistence | 0,57 | 0,62 | 8.72(5) | 0.121 | 0,995 | 0,044 | -0,486 |
| Self-discipline | 0,68 | 0,69 | 36.07(5) | < 0.001 | 0,937 | 0,127 | -0,229 |
| Task planning | 0,81 | 0,81 | 47.719(5) | < 0.001 | 0,977 | 0,149 | 0,486 |
| Goal-orientation | 0,77 | 0,77 | 154.106(5) | < 0.001 | 0,909 | 0,278 | 0,844 |
| Carefulness | 0,68 | 0,69 | 18.672(5) | 0.002 | 0,978 | 0,084 | 0,375 |
| Orderliness | 0,82 | 0,83 | 92.76(5) | < 0.001 | 0,954 | 0,213 | -0,234 |
| Wish to work | 0,63 | 0,67 | 35.668(5) | < 0.001 | 0,954 | 0,126 | 0,571 |
| Productivity | 0,68 | 0,69 | 19.16(5) | 0.002 | 0,979 | 0,086 | 0,732 |
| **Extraversion** |  |  |  |  |  |  |  |
| Sociability | 0,66 | 0,68 | 6.341(5) | 0.274 | 0,997 | 0,026 | -0,69 |
| Wish for affiliation | 0,65 | 0,68 | 50.828(5) | < 0.001 | 0,943 | 0,154 | -0,541 |
| Positive attitude | 0,82 | 0,83 | 29.172(5) | < 0.001 | 0,989 | 0,112 | 0,507 |
| Forcefulness | 0,68 | 0,7 | 6.587(5) | 0.253 | 0,998 | 0,029 | 0,242 |
| Communicativeness | 0,75 | 0,75 | 127.563(5) | < 0.001 | 0,883 | 0,252 | 0,741 |
| Humor | 0,79 | 0,79 | 28.17(5) | < 0.001 | 0,983 | 0,109 | 0,448 |
| Conviviality | 0,69 | 0,71 | 31.239(5) | < 0.001 | 0,981 | 0,116 | 0,508 |
| Energy | 0,71 | 0,73 | 0(0) | < 0.001 | 1 | 0 | 0,196 |
| **Emotional Stability** | | |  |  |  |  |  |
| Equanimity | 0,74 | 0,75 | 29.498(5) | < 0.001 | 0,974 | 0,113 | -0,036 |
| Mental balance | 0,86 | 0,86 | 57.719(5) | < 0.001 | 0,981 | 0,165 | 0,003 |
| Carefreeness | 0,77 | 0,77 | 14.337(5) | 0.014 | 0,99 | 0,069 | 0,158 |
| Confidence | 0,7 | 0,71 | 43.461(5) | < 0.001 | 0,95 | 0,141 | 0,117 |
| Drive | 0,62 | 0,64 | 22.031(5) | < 0.001 | 0,972 | 0,094 | 0,004 |
| Emotional robustness | 0,75 | 0,76 | 15.515(5) | 0.008 | 0,988 | 0,074 | 0,091 |
| Self-attention | 0,55 | 0,56 | 0(0) | < 0.001 | 1 | 0 | 0,068 |
| **Openness** | | |  |  |  |  |  |
| Creativity | 0,68 | 0,68 | 6.403(5) | 0.269 | 0,997 | 0,027 | 0,067 |
| Wish for variety | 0,7 | 0,72 | 63.079(5) | < 0.001 | 0,967 | 0,173 | -0,061 |
| Open-mindedness | 0,66 | 0,67 | 100.749(5) | < 0.001 | 0,869 | 0,222 | -0,154 |
| Interest in reading | 0,85 | 0,86 | 17.058(5) | 0.004 | 0,998 | 0,079 | -0,094 |
| Artistic Interests | 0,81 | 0,82 | 5.175(5) | 0.395 | 1 | 0,01 | 0,07 |
| Wish to analyze | 0,78 | 0,79 | 7.965(5) | 0.158 | 0,998 | 0,039 | 0,137 |
| Willingness to learn | 0,81 | 0,82 | 7.74(5) | 0.171 | 0,999 | 0,038 | -0,11 |
| Intellect | 0,8 | 0,82 | 0(0) | < 0.001 | 1 | 0 | -0,244 |

*Note: The ESEM column represents standardized loadings of the facet in its intended factor*

*Measurement Invariance.*

Table A.5. Highest degree of measurement invariance in each facet

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Domain | Configural | Partial metric | Metric | Partial scalar | Scalar |
| Agreebleness | |  |  |  |  |
|  | Readiness to give feedback | Altruism | Integrity | Search for support |  |
|  |  | Appreciation |  | Good faith |  |
|  |  | Genuineness |  |  |  |
|  |  | Low competitiveness |  |  |  |
| Conscientiousness | |  |  |  |  |
|  |  | Dominance | Self-discipline | Carefulness |  |
|  |  | Productivity |  | Self-discipline |  |
|  |  | Task planning |  | Orderliness |  |
|  |  |  |  | Persistence |  |
|  |  |  |  | Wish to work  Goal orientation |  |
| Extraversion | |  |  |  |  |
|  |  | Forcefulness | Wish for affiliation | Energy | Sociability |
|  |  | Comunicativeness |  | Humor |  |
|  |  | Readiness to take risks |  | Positive attitude |  |
|  |  |  |  | Conviviality |  |
| Emotional Stability | |  |  |  |  |
|  |  | Equanimity | Mental balance | Carefreeness |  |
|  |  | Confidence |  | Drive |  |
|  |  |  |  | Emotional robustness |  |
|  |  |  |  | Self-attention |  |
| Openness | |  |  |  |  |
|  |  | Willingness to learn | Artistic interests | Wish to analyze |  |
|  |  | Open-mindedness | Creativity | Wish for variety |  |
|  |  | Sensitivity |  | Interest in reading |  |
|  |  |  |  | Intellect |  |

Table A.6. Metric non-invariant items

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| facet | item | labels | lambda.usa | lambda.ger |
| Altruism | agree75 | I return extra change when a cashier makes a mistake. | 1.32 (0.29) | 0.58 (0.19) |
| Appreciation | agree73 | I respect others. | 1.02 (0.11) | 1.43 (0.17) |
| Genuineness | agree43 | I find it easy to manipulate others. | 0.95 (0.13) | 1.13 (0.13) |
| Genuineness | agree71 | I respect authority. | -0.52 (0.1) | -0.18 (0.09) |
| Low competitiveness | agree77 | I see other people as my competitors. | 0.89 (0.09) | 0.69 (0.09) |
| Low competitiveness | agree91 | I tend to brag about my accomplishments. | 0.63 (0.09) | 0.98 (0.11) |
| Search for Support | agree80 | I show my fear. | 0.77 (0.12) | 1.19 (0.14) |
| Search for Support | agree92 | I tend to complain. | 0.62 (0.14) | 0.37 (0.16) |
| Dominance | con106 | I try to outdo others. | 0.65 (0.1) | 0.31 (0.06) |
| Dominance | con93 | I resist authority. | 0.19 (0.09) | 0.59 (0.06) |
| Goal orientation | con4 | I am a goal-oriented person. | 1.01 (0.09) | 0.77 (0.1) |
| Orderliness | con71 | I make a mess of things. | 0.73 (0.08) | 0.99 (0.07) |
| Persistence | con66 | I like to take my time. | -0.09 (0.07) | 0.31 (0.09) |
| Persistence | con8 | I am easily discouraged. | 0.51 (0.09) | 0.92 (0.1) |
| Productivity | con97 | I start tasks right away. | 1.13 (0.23) | 1.68 (0.25) |
| Task planning | con6 | I am always prepared. | 0.77 (0.09) | 0.44 (0.06) |
| Communicativeness | extra84 | I disclose my intimate thoughts. | 0.28 (0.08) | 0.76 (0.05) |
| Conviviality | extra28 | I am good at getting people to like me. | 0.67 (0.12) | 0.22 (0.07) |
| Conviviality | extra341 | I would enjoy a lot of social interaction. | 1.18 (0.16) | 0.52 (0.08) |
| Energy | extra49 | I am usually active and full of energy. | 1.06 (0.15) | 0.75 (0.1) |
| Forcefulness | extra80 | I challenge others` points of view. | 0.82 (0.11) | 0.24 (0.08) |
| Readiness to take risks | extra60 | I avoid dangerous situations. | -0.88 (0.08) | -0.64 (0.08) |
| Sociability | extra124 | I feel comfortable around people. | -1 (0.11) | -0.7 (0.08) |
| Carefreeness | neuro29 | I am filled with doubts about things. | 0.72 (0.09) | 0.98 (0.08) |
| Confidence | neuro54 | I face danger confidently. | 0.86 (0.1) | 0.59 (0.09) |
| Equanimity | neuro147 | I snap at people. | 0.83 (0.09) | 0.48 (0.07) |
| Self-attention | neuro32 | I am preoccupied with myself. | 0.36 (0.14) | 0.99 (0.2) |
| Self-attention | neuro69 | I feel threatened easily. | 0.73 (0.29) | 1.43 (0.4) |
| Intellect | open30 | I can handle a lot of information. | 0.86 (0.08) | 0.55 (0.05) |
| Open-mindedness | open35 | I come up with alternatives. | 0.95 (0.12) | 0.59 (0.15) |
| Open-mindedness | open77 | I know how to apply my knowledge. | 0.91 (0.11) | 0.45 (0.14) |
| Sensitivity | open114 | I rarely notice my emotional reactions. | -0.14 (0.07) | -0.41 (0.08) |
| Willingness to learn | open40 | I dislike learning. | -0.75 (0.09) | -1.15 (0.09) |
| Wish for variety | open71 | I have been creative during the last year. | 0.65 (0.09) | 0.32 (0.08) |

Note: lambda.usa and lambda.ger represent unstandardized factor loadings on the configural model for the American and German sample respectively. Standard errors in parenthesis.

Table A.7. Scalar non-invariant items

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| facet | item | labels | tau.usa | tau.ger |
| Good Fatih | agree13 | I am good at working with a group. | 2.75 (0.05) | 2.52 (0.05) |
| Good Fatih | agree97 | I trust what people say. | 2.27 (0.05) | 2.08 (0.06) |
| Integrity | agree67 | I misuse power. | 0.91 (0.05) | 0.67 (0.05) |
| Search for Support | agree83 | I show my sadness. | 1.62 (0.06) | 2 (0.09) |
| Carefulness | con102 | I take precautions. | 2.4 (0.05) | 2.65 (0.05) |
| Carefulness | con15 | I avoid mistakes. | 2.22 (0.05) | 2.5 (0.05) |
| Goal orientation | con114 | I work hard. | 3.12 (0.05) | 2.69 (0.06) |
| Orderliness | con21 | I can never find anything. | 1.37 (0.05) | 1.01 (0.07) |
| Orderliness | con7 | I am continually losing things. | 1.57 (0.06) | 0.95 (0.07) |
| Persistence | con66 | I like to take my time. | 2.7 (0.05) | 2.42 (0.05) |
| Persistence | con77 | I never give up. | 2.8 (0.05) | 2.65 (0.06) |
| Self-discipline | con10 | I am easily talked into doing silly things. | 1.59 (0.06) | 2.3 (0.07) |
| Self-discipline | con2 | I act impulsively when something is bothering me. | 1.83 (0.06) | 2.61 (0.07) |
| Wish to work to capacity | con11 | I am exacting in my work. | 2.38 (0.04) | 2.95 (0.04) |
| Wish to work to capacity | con56 | I have extra time on my hands. | 1.62 (0.06) | 2.21 (0.06) |
| Conviviality | extra28 | I am good at getting people to like me. | 2.56 (0.05) | 2.17 (0.05) |
| Conviviality | extra99 | I enjoy being part of a group. | 2.72 (0.05) | 2.53 (0.06) |
| Energy | extra238 | I maintain high energy throughout the day. | 2.29 (0.05) | 2.1 (0.07) |
| Energy | extra311 | I tire out quickly. | 1.51 (0.05) | 1.87 (0.06) |
| Positive attitude | extra182 | I laugh a lot. | 3.2 (0.05) | 2.89 (0.05) |
| Positive attitude | extra233 | I love life. | 3.26 (0.04) | 2.24 (0.05) |
| Wish for affiliation | extra112 | I enjoy silence. | 2.24 (0.06) | 2.65 (0.06) |
| Wish for affiliation | extra125 | I feel isolated from other people. | 1.39 (0.06) | 1.14 (0.05) |
| Carefreeness | neuro121 | I often feel tense. | 1.83 (0.06) | 2.04 (0.07) |
| Carefreeness | neuro29 | I am filled with doubts about things. | 1.93 (0.06) | 1.64 (0.07) |
| Drive | neuro117 | I never spend more than I can afford. | 2.07 (0.07) | 2.44 (0.07) |
| Drive | neuro87 | I hardly know where my life is going. | 1.45 (0.06) | 1.77 (0.07) |
| Emotional robustness | neuro114 | I need protection. | 1.53 (0.05) | 1.82 (0.05) |
| Emotional robustness | neuro81 | I get overwhelmed by emotions. | 1.58 (0.06) | 2.08 (0.06) |
| Self-attention | neuro116 | I need the approval of others. | 1.84 (0.06) | 2.1 (0.07) |
| Self-attention | neuro32 | I am preoccupied with myself. | 1.5 (0.05) | 1.67 (0.06) |
| Intellect | open111 | I am quick to understand things. | 2.73 (0.04) | 2.53 (0.09) |
| Intellect | open85 | I learn quickly. | 2.85 (0.05) | 2.51 (0.09) |
| Interest in reading | open118 | I read a lot. | 2.06 (0.07) | 2.25 (0.08) |
| Wish for variety | open5 | I am excited by many different activities. | 2.75 (0.05) | 3.04 (0.05) |
| Wish for variety | open71 | I have been creative during the last year. | 2.84 (0.05) | 2.61 (0.05) |
| Wish to analyze | open145 | I try to understand myself. | 3.12 (0.04) | 2.8 (0.05) |
| Wish to analyze | open93 | I like to speculate about things. | 2.48 (0.05) | 3.03 (0.05) |

Note: tau.usa and tau.ger represent unstandardized intercepts on the metric invariant model for the American and German sample respectively. Standard errors in parenthesis.

Table A.6. ESEM factor loadings and cross-loadings for the USA sample

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | AGREE | CONSC | EXTRA | NEURO | OPEN |
| A1 | -0.383 | 0.124 | 0.261 | 0.446 | 0.095 |
| A2 | 0.638 | -0.218 | -0.181 | -0.099 | 0.13 |
| A3 | 0.757 | 0.058 | 0.063 | 0.118 | 0.102 |
| A6 | -0.229 | 0.007 | 0.407 | 0.137 | 0.226 |
| A7 | 0.635 | -0.172 | -0.034 | -0.001 | 0.144 |
| A8 | -0.347 | -0.003 | 0.246 | 0.334 | 0.132 |
| C1 | 0.677 | 0.273 | 0.081 | 0.177 | 0.041 |
| C2 | 0.033 | -0.325 | -0.203 | -0.169 | 0.457 |
| C3 | 0.265 | -0.302 | 0.096 | 0.163 | 0.533 |
| C4 | 0.183 | 0.816 | -0.097 | 0.012 | 0.034 |
| C5 | 0.068 | 0.681 | 0.133 | 0.184 | -0.147 |
| C6 | -0.071 | 0.585 | -0.194 | 0.321 | 0.013 |
| C7 | 0.032 | -0.46 | 0.045 | 0.185 | 0.364 |
| C8 | 0.054 | 0.35 | 0.114 | 0.191 | 0.148 |
| C9 | 0.12 | 0.4 | 0.077 | 0.16 | -0.24 |
| E1 | -0.082 | 0.015 | -0.746 | -0.002 | 0.025 |
| E3 | 0.045 | 0.078 | -0.694 | 0.456 | 0.029 |
| E4 | -0.081 | 0.169 | 0.547 | 0.249 | -0.163 |
| E5 | 0.6 | 0.039 | 0.196 | 0.398 | -0.007 |
| E6 | 0.113 | -0.077 | 0.699 | -0.001 | 0.36 |
| E7 | 0.08 | -0.203 | 0.289 | 0.414 | -0.027 |
| E8 | 0.048 | 0.012 | 0.744 | 0.083 | 0.137 |
| E9 | 0.106 | 0.042 | 0.492 | 0.11 | -0.264 |
| N1 | 0.46 | 0.011 | -0.055 | -0.135 | 0.389 |
| N2 | 0.052 | -0.1 | -0.489 | 0.083 | 0.54 |
| N3 | 0.003 | 0.144 | -0.243 | 0.09 | 0.755 |
| N4 | 0.204 | -0.013 | 0.064 | 0.537 | -0.411 |
| N5 | 0.027 | -0.365 | -0.234 | 0.006 | 0.587 |
| N6 | -0.162 | 0.247 | 0.055 | -0.129 | 0.729 |
| N7 | 0.136 | 0.106 | 0.009 | -0.089 | 0.629 |
| O1 | 0.22 | -0.236 | -0.014 | 0.806 | -0.158 |
| O2 | -0.184 | 0.121 | 0.284 | 0.42 | 0.038 |
| O3 | -0.082 | -0.012 | 0.066 | 0.768 | -0.095 |
| O4 | -0.208 | -0.04 | -0.173 | 0.543 | 0.107 |
| O5 | -0.27 | -0.095 | 0.031 | 0.586 | 0.056 |
| O6 | -0.001 | 0.154 | -0.152 | 0.776 | 0.065 |
| O7 | -0.246 | 0.137 | 0.044 | 0.706 | -0.05 |
| O9 | 0.073 | 0.17 | -0.114 | 0.623 | -0.197 |

Table A.7. ESEM factor loadings and cross-loadings for the German sample

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | AGREE | CONSC | EXTRA | NEURO | OPEN |
| A1 | -0.443 | 0.098 | 0.121 | 0.081 | 0.382 |
| A2 | 0.64 | -0.036 | -0.042 | 0.17 | -0.125 |
| A3 | 0.774 | 0.059 | -0.017 | 0.144 | 0.082 |
| A6 | -0.204 | -0.053 | 0.426 | 0.076 | 0.177 |
| A7 | 0.732 | -0.049 | 0.008 | 0.008 | -0.037 |
| A8 | -0.403 | 0.097 | 0.033 | 0.154 | 0.029 |
| C1 | 0.68 | 0.192 | 0.183 | 0.009 | 0.085 |
| C2 | 0.014 | -0.486 | -0.046 | 0.387 | -0.056 |
| C3 | 0.341 | -0.229 | 0.328 | 0.419 | -0.07 |
| C4 | 0.053 | 0.486 | -0.094 | 0.185 | 0.117 |
| C5 | -0.01 | 0.844 | 0.046 | 0.173 | 0.014 |
| C6 | -0.021 | 0.375 | -0.236 | -0.052 | 0.406 |
| C7 | 0.22 | -0.234 | 0.059 | 0.288 | -0.109 |
| C8 | -0.045 | 0.571 | -0.077 | 0.39 | -0.156 |
| C9 | 0.044 | 0.732 | 0.072 | -0.014 | -0.17 |
| E1 | -0.07 | -0.065 | -0.69 | 0.033 | 0.021 |
| E3 | 0.006 | -0.063 | -0.541 | 0.074 | 0.395 |
| E4 | -0.052 | 0.044 | 0.507 | -0.391 | 0.058 |
| E5 | 0.663 | 0.192 | 0.242 | -0.042 | 0.053 |
| E6 | 0.157 | -0.03 | 0.741 | 0.312 | 0.038 |
| E7 | 0.071 | -0.084 | 0.448 | -0.081 | 0.318 |
| E8 | -0.113 | 0.118 | 0.508 | 0.009 | 0.09 |
| E9 | 0.065 | 0.605 | 0.196 | -0.108 | -0.203 |
| N1 | 0.354 | 0.041 | 0.128 | 0.46 | -0.036 |
| N2 | 0.076 | -0.056 | -0.357 | 0.571 | 0.003 |
| N3 | -0.003 | -0.013 | -0.218 | 0.78 | 0.158 |
| N4 | 0.199 | 0.223 | -0.012 | -0.455 | 0.117 |
| N5 | 0.013 | -0.473 | -0.07 | 0.502 | 0.004 |
| N6 | -0.131 | 0.145 | 0.239 | 0.776 | 0.091 |
| N7 | 0.173 | 0.001 | -0.159 | 0.629 | 0.068 |
| O1 | 0.427 | 0.031 | 0.062 | 0.067 | 0.411 |
| O2 | 0.026 | -0.008 | 0.374 | -0.061 | 0.342 |
| O3 | 0.042 | 0.116 | 0.009 | -0.154 | 0.564 |
| O4 | -0.108 | -0.051 | 0.07 | -0.094 | 0.53 |
| O5 | -0.15 | 0.011 | 0.104 | 0.07 | 0.537 |
| O6 | 0.126 | -0.023 | -0.018 | 0.137 | 0.761 |
| O7 | -0.019 | 0.107 | 0.055 | -0.11 | 0.682 |
| O9 | 0.209 | 0.286 | -0.041 | -0.244 | 0.29 |

Table A.8. 10 largest modification indices of the ESEM with the USA sample

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| modV1 | operator | modV2 | MI | EPC | Std\_EPC | StdYX\_EPC |
| N5 | WITH | C2 | 57.66 | 0.073 | 0.073 | 0.469 |
| E5 | WITH | C1 | 49 | 0.073 | 0.073 | 0.476 |
| O5 | WITH | O4 | 31.104 | 0.137 | 0.137 | 0.314 |
| N6 | WITH | C6 | 27.34 | -0.035 | -0.035 | -0.335 |
| C6 | WITH | C4 | 24.225 | 0.034 | 0.034 | 0.363 |
| E7 | WITH | C1 | 22.426 | -0.079 | -0.079 | -0.281 |
| N6 | WITH | E3 | 22.3 | 0.076 | 0.076 | 0.301 |
| O3 | WITH | O2 | 22.167 | -0.046 | -0.046 | -0.278 |
| O9 | WITH | C9 | 22.049 | 0.042 | 0.042 | 0.264 |
| E4 | WITH | E1 | 20.958 | 0.04 | 0.04 | 0.288 |

Table A.9. Residual correlation matrix ESEM USA sample

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | A1 | A2 | A3 | A6 | A7 | A8 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | E1 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | N1 | N2 | N3 | N4 | N5 | N6 | N7 | O1 | O2 | O3 | O4 | O5 | O6 | O7 | O9 |
| A1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A2 | -0.005 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A3 | 0.034 | 0.024 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A6 | 0.095 | -0.017 | 0.065 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A7 | -0.017 | 0.005 | -0.007 | 0.044 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A8 | 0.063 | -0.057 | -0.012 | 0.054 | -0.014 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C1 | 0.02 | -0.013 | 0.047 | 0.026 | -0.029 | 0.072 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C2 | -0.008 | 0.058 | -0.001 | 0.062 | -0.048 | 0.013 | 0.006 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C3 | -0.023 | -0.014 | -0.02 | -0.001 | 0.052 | -0.032 | -0.074 | -0.051 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C4 | -0.004 | 0.021 | -0.006 | -0.002 | 0.004 | -0.014 | -0.035 | 0.057 | -0.017 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C5 | -0.022 | 0.022 | -0.041 | -0.02 | 0.021 | -0.019 | 0.006 | -0.063 | 0.02 | 0.001 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C6 | -0.007 | 0.026 | 0.014 | 0.005 | -0.061 | 0.037 | -0.005 | 0.071 | -0.075 | 0.075 | -0.012 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C7 | -0.018 | 0.003 | -0.031 | -0.028 | 0.001 | 0.066 | 0.037 | -0.051 | 0.032 | -0.044 | -0.003 | 0.014 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C8 | 0 | -0.008 | -0.002 | -0.008 | -0.001 | -0.09 | -0.045 | 0.018 | 0.076 | 0.021 | 0.043 | 0.011 | 0.094 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C9 | -0.02 | 0.022 | -0.024 | 0.032 | -0.012 | 0.069 | -0.037 | 0.047 | 0.016 | 0.042 | 0.011 | -0.022 | -0.019 | 0.003 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E1 | 0.003 | 0.007 | 0.011 | 0.065 | 0.038 | 0.04 | 0.02 | -0.026 | 0.051 | -0.031 | 0.006 | -0.023 | 0.006 | -0.003 | -0.008 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E3 | -0.026 | -0.008 | -0.019 | -0.027 | 0.026 | -0.025 | -0.042 | -0.047 | 0.047 | 0.022 | 0.009 | -0.037 | 0.017 | 0.008 | -0.001 | 0.058 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E4 | -0.017 | 0.033 | -0.007 | 0.044 | 0.037 | 0.03 | -0.008 | -0.024 | 0.06 | -0.015 | 0.008 | -0.017 | 0.007 | 0.026 | 0.052 | 0.078 | 0.054 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E5 | 0.019 | -0.064 | 0.005 | -0.014 | -0.007 | 0.046 | 0.104 | 0.029 | -0.04 | -0.014 | -0.027 | -0.003 | -0.002 | -0.022 | 0.01 | -0.032 | -0.004 | -0.054 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E6 | -0.068 | 0.014 | -0.026 | -0.039 | -0.045 | 0.006 | -0.019 | 0.017 | -0.014 | -0.003 | 0.008 | 0.003 | -0.025 | 0.008 | -0.014 | -0.055 | 0.027 | 0.016 | 0.049 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E7 | 0.008 | 0.041 | -0.022 | -0.058 | 0.033 | -0.045 | -0.115 | -0.018 | 0.06 | 0.072 | 0.019 | 0.011 | -0.043 | -0.046 | 0.009 | -0.031 | 0.057 | 0.031 | -0.032 | 0.039 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E8 | 0.033 | 0.011 | 0.035 | 0.043 | 0.019 | -0.034 | -0.023 | 0.011 | -0.015 | 0.037 | -0.003 | 0.055 | 0.005 | -0.038 | -0.031 | -0.05 | -0.044 | -0.017 | -0.01 | -0.033 | 0.017 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E9 | -0.067 | 0.039 | -0.045 | -0.01 | 0.014 | 0.073 | -0.019 | 0.036 | 0.006 | 0.018 | 0.045 | -0.022 | 0.025 | 0.027 | 0.094 | -0.003 | -0.03 | 0.04 | -0.058 | 0.049 | 0.017 | -0.055 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N1 | 0.024 | 0.081 | -0.055 | -0.121 | -0.033 | -0.061 | 0.012 | -0.047 | 0.047 | -0.018 | 0.023 | -0.014 | 0.039 | -0.027 | 0.026 | 0.041 | 0.056 | 0.031 | 0.006 | 0.026 | 0.012 | 0.01 | 0.001 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N2 | 0.013 | -0.001 | -0.002 | -0.042 | 0.032 | 0.022 | -0.026 | -0.02 | -0.011 | 0.014 | 0.023 | 0.018 | 0.01 | -0.011 | 0.017 | -0.02 | -0.025 | -0.062 | -0.007 | -0.016 | 0.032 | 0.027 | 0.015 | -0.024 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N3 | 0.013 | -0.034 | 0.008 | -0.026 | 0.016 | 0.022 | -0.007 | -0.051 | 0.053 | -0.012 | 0.013 | -0.002 | 0.022 | 0.035 | -0.014 | -0.011 | -0.058 | -0.041 | -0.009 | -0.011 | -0.05 | -0.025 | 0.024 | -0.007 | 0.034 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| N4 | -0.007 | -0.021 | 0.029 | -0.008 | -0.003 | 0.067 | -0.046 | -0.036 | 0.068 | 0.018 | -0.032 | 0.017 | 0.06 | 0.079 | 0.04 | -0.027 | 0.02 | 0.021 | -0.021 | -0.05 | -0.054 | 0.002 | 0.046 | -0.05 | 0.009 | 0.01 | 0 |  |  |  |  |  |  |  |  |  |  |  |
| N5 | -0.015 | 0.036 | -0.017 | 0.073 | -0.034 | 0.04 | 0.017 | 0.13 | -0.037 | 0.028 | -0.005 | 0.052 | -0.005 | 0.013 | 0.016 | -0.029 | 0.014 | -0.004 | -0.001 | 0.01 | 0.022 | 0.029 | -0.019 | -0.026 | 0.01 | -0.015 | 0.009 | 0 |  |  |  |  |  |  |  |  |  |  |
| N6 | -0.001 | -0.036 | -0.049 | -0.087 | 0.003 | 0.015 | 0.016 | -0.018 | 0.038 | -0.006 | 0.009 | -0.105 | -0.04 | -0.017 | 0.024 | -0.003 | 0.107 | 0.055 | 0.004 | 0.056 | -0.012 | -0.043 | 0.014 | 0.095 | -0.016 | 0.002 | -0.053 | -0.035 | 0 |  |  |  |  |  |  |  |  |  |
| N7 | -0.025 | -0.017 | 0.082 | 0.109 | 0.049 | -0.007 | -0.024 | -0.025 | 0.052 | -0.001 | -0.03 | 0.015 | 0.003 | -0.038 | 0.016 | 0.036 | -0.032 | 0.03 | -0.058 | -0.031 | 0.017 | -0.021 | -0.001 | -0.056 | 0.005 | 0 | 0.065 | -0.015 | 0.022 | 0 |  |  |  |  |  |  |  |  |
| O1 | -0.027 | 0.007 | -0.034 | -0.07 | 0.04 | -0.016 | -0.036 | -0.041 | 0.059 | 0.004 | 0.033 | -0.024 | -0.051 | 0.001 | -0.028 | -0.014 | 0.025 | -0.012 | -0.019 | 0.013 | 0.057 | -0.017 | 0.07 | 0.017 | 0.036 | 0.024 | 0.002 | -0.011 | 0.012 | -0.041 | 0 |  |  |  |  |  |  |  |
| O2 | -0.019 | -0.041 | 0.01 | -0.034 | 0.024 | -0.082 | 0.004 | -0.082 | 0.072 | -0.027 | 0.038 | -0.043 | 0.044 | -0.001 | -0.096 | 0.065 | 0.021 | 0.033 | -0.029 | -0.034 | 0.001 | 0.051 | -0.05 | 0.02 | -0.007 | 0.006 | -0.013 | -0.062 | -0.022 | 0.07 | 0.038 | 0 |  |  |  |  |  |  |
| O3 | 0.08 | -0.006 | -0.006 | 0.015 | -0.044 | 0.012 | 0.007 | 0.05 | -0.046 | 0.026 | -0.027 | 0.039 | 0.009 | 0.04 | 0.051 | -0.019 | -0.05 | -0.034 | 0.033 | -0.02 | 0.024 | 0.02 | 0.018 | 0.007 | 0.006 | 0.006 | 0.008 | 0.035 | -0.03 | -0.019 | 0.018 | -0.097 | 0 |  |  |  |  |  |
| O4 | -0.041 | 0.069 | 0.025 | 0.016 | -0.038 | -0.007 | 0.001 | 0.037 | -0.08 | -0.025 | 0.024 | -0.025 | -0.001 | -0.125 | 0.153 | 0.01 | 0.022 | -0.008 | -0.01 | 0.096 | 0.007 | -0.038 | 0.036 | 0.013 | 0.003 | -0.045 | -0.097 | 0.004 | 0.057 | 0.007 | -0.036 | -0.055 | 0.032 | 0 |  |  |  |  |
| O5 | -0.042 | 0.048 | 0.008 | -0.052 | -0.048 | -0.012 | 0.021 | 0.024 | -0.071 | 0 | 0.012 | 0.022 | 0.036 | -0.018 | 0.03 | 0.009 | -0.023 | 0.002 | -0.007 | 0.015 | -0.017 | 0.053 | 0.016 | 0.024 | 0.019 | -0.033 | -0.054 | 0.028 | 0.006 | -0.06 | 0.003 | 0.046 | -0.009 | 0.189 | 0 |  |  |  |
| O6 | -0.026 | -0.01 | 0.017 | 0.029 | 0 | -0.016 | 0.026 | 0.007 | 0.005 | -0.02 | -0.024 | 0.028 | 0.014 | -0.015 | -0.085 | 0.008 | 0.008 | -0.022 | 0.036 | 0.012 | -0.032 | -0.019 | -0.046 | -0.042 | -0.048 | 0.003 | 0.003 | -0.044 | 0.011 | 0.037 | -0.027 | 0.041 | -0.02 | -0.02 | 0.005 | 0 |  |  |
| O7 | 0.006 | 0.033 | -0.004 | -0.03 | 0.008 | -0.068 | 0.007 | 0.003 | -0.022 | -0.02 | 0.005 | -0.007 | -0.032 | 0.015 | -0.073 | -0.013 | 0.01 | 0.033 | -0.023 | 0.004 | -0.017 | 0.004 | -0.022 | 0.005 | 0.001 | -0.001 | -0.032 | -0.025 | 0.001 | 0.003 | 0.022 | 0.075 | -0.041 | 0.023 | 0.009 | 0.058 | 0 |  |
| O9 | -0.009 | -0.023 | -0.002 | 0.076 | -0.006 | 0.008 | -0.008 | 0.037 | 0.007 | -0.005 | 0.007 | -0.011 | -0.056 | -0.068 | 0.133 | -0.015 | 0.023 | 0.034 | 0.02 | -0.006 | 0.025 | -0.022 | -0.017 | -0.009 | -0.029 | 0 | 0.056 | 0.062 | 0.023 | 0.004 | -0.023 | -0.083 | 0.028 | 0.086 | -0.039 | -0.011 | -0.032 | 0 |

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