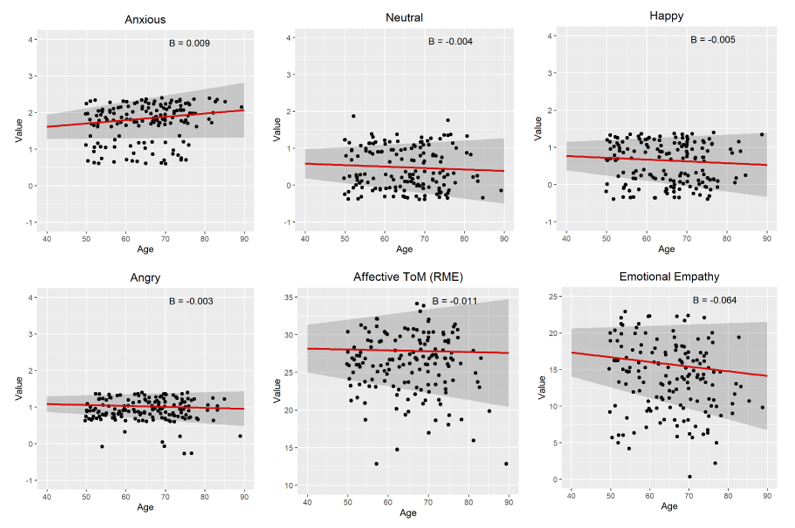
**Supplementary Table 1.**

Normative adult data for TASIT-S.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **40-59** | **60-74** | **75+** |
|  | **M (SD)** | **M (SD)** | **M (SD)** |
| **Emotion perception total** | 7.65 (1.09) | 7.06 (1.44) | 6.22 (1.80) |
|  |  |  |  |
| **Cognitive ToM** |  |  |  |
| First-order cognitive | 15.08 (1.14) | 14.60 (1.11) | 12.93 (1.47) |
| Second-order cognitive | 15.54 (1.21) | 14.14 (1.30) | 13.54 (1.35) |
|  |  |  |  |
| **Affective ToM** | 14.58 (1.23) | 13.68 (1.28) | 12.71 (1.66) |
|  |  |  |  |
| **Combined cognitive and affective ToM** |  |  |  |
| Sincere exchanges | 12.96 (3.37) | 11.23 (3.76) | 9.75 (3.41) |
| Sarcastic exchanges | 17.91 (2.57) | 17.47 (2.53) | 16.17 (3.21) |
| Lying exchanges | 12.67 (1.90) | 12.47 (2.21) | 11.55 (2.53) |
| Enriched sarcastic exchanges | 17.06 (2.16) | 15.50 (2.62) | 14.94 (3.24) |

*Note.* Data from McDonald, S., Honan, C., Allen, S. K., El-Helou, R., Kelly, M., Kumfor, F., Piguet, O., Hazelton, J. L., Padgett, C., & Keage, H. A. (2018). Normal adult and adolescent performance on TASIT-S, a short version of The Assessment of Social Inference Test. *The Clinical Neuropsychologist*, *32*(4), 700-719. https://doi.org/10.1080/13854046.2017.1400106

**Supplementary Figure 1.** Visual comparison of non-significant B values (p>.013) for age across social cognition outcome variables. Slope of line is equal to B (the unstandardised coefficient). Intercept is equal to the intercept of robust multiple regression model. Shaded areas indicate 95% CI of B.

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**Supplementary Table 2.**

Spearman’s Rank Correlation Coefficients for each outcome variable.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| **Emotion perception** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Happy (TASIT-S) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Neutral (TASIT-S) | 0.03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3. Sad (TASIT-S) | -0.06 | 0.14 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4. Angry (TASIT-S) | -0.04 | 0.03 | 0.13 |  |  |  |  |  |  |  |  |  |  |  |  |
| 5. Anxious (TASIT-S) | 0.06 | -0.02 | -0.14 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |
| 6. Revolted (TASIT-S) | -0.06 | 0.01 | 0.07 | 0.08 | 0.02 |  |  |  |  |  |  |  |  |  |  |
| 7. Emotion total (TASIT-S) | **0.37** | **0.48** | **0.40** | **0.26** | **0.32** | **0.61** |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cognitive ToM** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8. First-order cognitive (TASIT-S) | -0.01 | -0.08 | 0.14 | 0.09 | 0.07 | **0.22** | **0.19** |  |  |  |  |  |  |  |  |
| 9. Second-order cognitive (TASIT-S) | 0.10 | 0.14 | **0.24** | 0.14 | 0.08 | 0.12 | **0.31** | **0.51** |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Affective ToM** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10. Affective (TASIT-S) | 0.05 | 0.02 | **0.26** | 0.11 | -0.06 | 0.13 | **0.19** | **0.53** | **0.47** |  |  |  |  |  |  |
| 11. Affective (RME-R) | 0.03 | 0.15 | -0.02 | **0.19** | 0.02 | **0.21** | **0.23** | **0.18** | 0.12 | **0.16** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cognitive and affective ToM combined** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12. Sarcasm (TASIT-S) | -0.05 | 0.15 | **0.16** | 0.07 | 0.02 | **0.19** | **0.23** | **0.46** | **0.43** | **0.27** | 0.15 |  |  |  |  |
| 13. Sincere (TASIT-S) | 0.12 | -0.07 | 0.14 | 0.06 | 0.05 | 0.02 | 0.10 | **0.50** | **0.41** | **0.55** | 0.01 | **-0.22** |  |  |  |
| 14. Lies (TASIT-S) | -0.07 | -0.11 | 0.15 | 0.04 | 0.01 | **0.16** | 0.08 | **0.54** | **0.37** | **0.54** | 0.11 | 0.11 | **0.27** |  |  |
| 15. Enriched sarcasm (TASIT-S) | 0.10 | 0.08 | 0.10 | **0.16** | -0.04 | 0.04 | 0.15 | **0.19** | **0.54** | **0.32** | **0.20** | **0.27** | -0.04 | -0.06 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16. **Emotional empathy (EQ)** | 0.11 | -0.14 | 0.09 | **0.18** | -0.09 | **0.17** | 0.12 | 0.13 | 0.02 | 0.07 | 0.14 | -0.01 | 0.07 | 0.11 | 0.04 |

Note. Bolded p-values are significant (p<0.017). TASIT-S = The Awareness of Social Inference Test Short Form. RME-R = Reading the mind in the Eyes Revised. EQ= Empathy Quotient.

**Supplementary Table 3.**

*Summary statistics for each of the 16 bootstrapped multiple linear regression models, including each of the seven predictors.*

| Variable | | *R*2 | *B* | *β* | 95% CI | | *p* |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Emotion perception** | | | | | | | |
| **Happy** |  | 0.03 |  |  |  |  | 0.745 |
|  | Age |  | -0.00 | -0.09 | -0.01 | 0.00 | 0.328 |
|  | Sex |  | 0.04 | 0.07 | -0.14 | 0.22 | 0.687 |
|  | Education |  | 0.01 | 0.06 | -0.01 | 0.03 | 0.490 |
|  | Cognition |  | 0.00 | 0.02 | -0.02 | 0.02 | 0.835 |
|  | Hearing |  | 0.01 | 0.07 | -0.01 | 0.02 | 0.382 |
|  | Social engagement |  | 0.01 | 0.11 | -0.01 | 0.02 | 0.251 |
|  | Depression |  | 0.01 | 0.06 | -0.02 | 0.05 | 0.442 |
| Minimally adjusted model 0.01 | | | | | | | |
|  | Age |  | -0.01 | -0.11 | -0.01 | 0.00 | 0.167 |
|  | Sex |  | 0.04 | 0.07 | -0.14 | 0.21 | 0.685 |
| Testing mode model 0.03 | | | | | | | |
|  | Age |  | -0.01 | -0.14 | -0.02 | 0.00 | 0.067 |
|  | Mode |  | -0.14 | -0.29 | -0.30 | 0.01 | 0.074 |
| **Neutral** |  | 0.04 |  |  |  |  | 0.072 |
|  | Age |  | -0.00 | -0.07 | -0.01 | 0.01 | 0.431 |
|  | Sex |  | 0.07 | 0.13 | -0.11 | 0.24 | 0.458 |
|  | Education |  | 0.00 | 0.03 | -0.02 | 0.03 | 0.737 |
|  | Cognition |  | -0.01 | -0.11 | -0.03 | 0.01 | 0.216 |
|  | Hearing |  | 0.00 | 0.02 | -0.02 | 0.02 | 0.862 |
|  | Social engagement |  | -0.01 | -0.07 | -0.02 | 0.01 | 0.414 |
|  | Depression |  | 0.02 | 0.09 | -0.02 | 0.07 | 0.355 |
| Minimally adjusted model 0.01 | | | | | | | |
|  | Age |  | -0.00 | -0.07 | -0.01 | 0.01 | 0.375 |
|  | Sex |  | 0.05 | 0.09 | -0.13 | 0.23 | 0.603 |
| Testing mode model 0.01 | | | | | | | |
|  | Age |  | 0.04 | -0.07 | -0.13 | 0.21 | 0.619 |
|  | Mode |  | -0.00 | 0.08 | -0.01 | 0.01 | 0.408 |
| **Sad** |  | 0.20 |  |  |  |  | 0.000 |
|  | Age |  | -0.02 | -0.40 | -0.03 | -0.01 | 0.000 |
|  | Sex |  | 0.04 | 0.08 | -0.11 | 0.19 | 0.627 |
|  | Education |  | -0.02 | -0.18 | -0.04 | -0.00 | 0.027 |
|  | Cognition |  | -0.00 | -0.03 | -0.02 | 0.01 | 0.683 |
|  | Hearing |  | -0.00 | -0.05 | -0.02 | 0.01 | 0.573 |
|  | Social engagement |  | -0.01 | -0.08 | -0.02 | 0.01 | 0.292 |
|  | Depression |  | -0.04 | -0.20 | -0.08 | -0.00 | 0.041 |
| Minimally adjusted model 0.13 | | | | | | | |
|  | Age |  | -0.02 | -0.35 | -0.02 | -0.01 | 0.000 |
|  | Sex |  | 0.07 | 0.16 | -0.07 | 0.21 | 0.316 |
| Testing mode model 0.15 | | | | | | | |
|  | Age |  | -0.14 | -0.39 | -0.27 | -0.01 | 0.039 |
|  | Mode |  | -0.02 | -0.32 | -0.03 | -0.01 | 0.000 |
| **Angry** |  | 0.13 |  |  |  |  | 0.706 |
|  | Age |  | -0.00 | -0.10 | -0.01 | 0.00 | 0.342 |
|  | Sex |  | 0.09 | 0.43 | 0.00 | 0.18 | 0.044 |
|  | Education |  | 0.00 | 0.07 | -0.01 | 0.02 | 0.482 |
|  | Cognition |  | 0.01 | 0.16 | -0.00 | 0.02 | 0.057 |
|  | Hearing |  | 0.00 | 0.07 | -0.00 | 0.01 | 0.504 |
|  | Social engagement |  | 0.00 | 0.12 | -0.00 | 0.01 | 0.110 |
|  | Depression |  | 0.00 | 0.03 | -0.02 | 0.02 | 0.784 |
| Minimally adjusted model 0.06 | | | | | | | |
|  | Age |  | -0.00 | -0.12 | -0.01 | 0.00 | 0.224 |
|  | Sex |  | 0.09 | 0.42 | -0.00 | 0.19 | 0.052 |
| Testing mode model 0.02 | | | | | | | |
|  | Age |  | -0.03 | -0.16 | -0.09 | 0.04 | 0.438 |
|  | Mode |  | -0.00 | -0.12 | -0.01 | 0.00 | 0.091 |
| **Anxious** |  | 0.05 |  |  |  |  | 0.367 |
|  | Age |  | 0.01 | 0.19 | 0.00 | 0.02 | 0.032 |
|  | Sex |  | -0.02 | -0.05 | -0.17 | 0.13 | 0.775 |
|  | Education |  | 0.01 | 0.12 | -0.00 | 0.03 | 0.144 |
|  | Cognition |  | 0.00 | 0.02 | -0.01 | 0.02 | 0.784 |
|  | Hearing |  | 0.00 | 0.02 | -0.01 | 0.01 | 0.796 |
|  | Social engagement |  | 0.00 | 0.00 | -0.01 | 0.01 | 0.981 |
|  | Depression |  | 0.00 | 0.02 | -0.03 | 0.04 | 0.845 |
| Minimally adjusted model 0.03 | | | | | | | |
|  | Age |  | 0.01 | 0.16 | 0.00 | 0.01 | 0.039 |
|  | Sex |  | -0.02 | -0.05 | -0.17 | 0.12 | 0.761 |
| Testing mode model 0.03 | | | | | | | |
|  | Age |  | 0.01 | 0.16 | -0.13 | 0.16 | 0.855 |
|  | Mode |  | 0.01 | 0.03 | 0.00 | 0.02 | 0.038 |
| **Revolted** |  | 0.10 |  |  |  |  | 0.242 |
|  | Age |  | -0.02 | -0.26 | -0.03 | -0.01 | 0.002 |
|  | Sex |  | 0.02 | 0.03 | -0.25 | 0.29 | 0.879 |
|  | Education |  | 0.01 | 0.03 | -0.03 | 0.04 | 0.757 |
|  | Cognition |  | 0.02 | 0.12 | -0.01 | 0.05 | 0.169 |
|  | Hearing |  | 0.01 | 0.04 | -0.01 | 0.02 | 0.537 |
|  | Social engagement |  | 0.00 | 0.00 | -0.02 | 0.02 | 0.966 |
|  | Depression |  | -0.01 | -0.03 | -0.06 | 0.05 | 0.757 |
| Minimally adjusted model 0.08 | | | | | | | |
|  | Age |  | -0.02 | -0.28 | -0.03 | -0.01 | 0.000 |
|  | Sex |  | 0.05 | 0.07 | -0.21 | 0.31 | 0.698 |
| Testing mode model 0.09 | | | | | | | |
|  | Age |  | 0.13 | -0.27 | -0.09 | 0.36 | 0.253 |
|  | Mode |  | -0.02 | 0.18 | -0.03 | -0.01 | 0.000 |
| **Emotion Total** 0.12 0.008 | | | | | | | |
|  | Age |  | -0.04 | -0.31 | -0.07 | -0.02 | 0.000 |
|  | Sex |  | 0.23 | 0.19 | -0.17 | 0.63 | 0.252 |
|  | Education |  | 0.01 | 0.05 | -0.04 | 0.07 | 0.631 |
|  | Cognition |  | 0.02 | 0.06 | -0.04 | 0.07 | 0.537 |
|  | Hearing |  | 0.01 | 0.07 | -0.02 | 0.05 | 0.482 |
|  | Social engagement |  | 0.00 | 0.01 | -0.03 | 0.03 | 0.889 |
|  | Depression |  | -0.01 | -0.01 | -0.12 | 0.11 | 0.911 |
| Minimally adjusted model 0.13 | | | | | | | |
|  | Age |  | -0.05 | -0.33 | -0.07 | -0.03 | 0.000 |
|  | Sex |  | 0.28 | 0.22 | -0.13 | 0.69 | 0.185 |
| Testing mode model 0.12 | | | | | | | |
|  | Age |  | -0.12 | -0.35 | -0.50 | 0.25 | 0.521 |
|  | Mode |  | -0.05 | -0.10 | -0.07 | -0.03 | 0.000 |
| **Cognitive theory of mind** | | | | | | | |
| **First-order cognitive** 0.22 0.000 | | | | | | | |
|  | Age |  | -0.07 | -0.34 | -0.10 | -0.04 | 0.000 |
|  | Sex |  | 0.15 | 0.08 | -0.42 | 0.71 | 0.610 |
|  | Education |  | -0.00 | -0.01 | -0.07 | 0.06 | 0.888 |
|  | Cognition |  | 0.07 | 0.18 | 0.01 | 0.12 | 0.024 |
|  | Hearing |  | -0.03 | -0.13 | -0.08 | 0.01 | 0.114 |
|  | Social engagement |  | 0.00 | 0.01 | -0.05 | 0.05 | 0.944 |
|  | Depression |  | -0.06 | -0.08 | -0.19 | 0.06 | 0.326 |
| Minimally adjusted model 0.16 | | | | | | | |
|  | Age |  | -0.08 | -0.39 | -0.11 | -0.05 | 0.000 |
|  | Sex |  | 0.20 | 0.11 | -0.35 | 0.75 | 0.467 |
| Testing mode model 0.15 | | | | | | | |
|  | Age |  | -0.08 | -0.40 | -0.11 | -0.05 | 0.000 |
|  | Mode |  | -0.05 | -0.03 | -0.58 | 0.49 | 0.865 |
| **Second-order cognitive** 0.23 0.000 | | | | | | | |
|  | Age |  | -0.08 | -0.36 | -0.11 | -0.04 | 0.000 |
|  | Sex |  | -0.32 | -0.17 | -0.94 | 0.29 | 0.304 |
|  | Education |  | 0.02 | 0.04 | -0.05 | 0.09 | 0.601 |
|  | Cognition |  | 0.05 | 0.11 | -0.02 | 0.12 | 0.196 |
|  | Hearing |  | -0.06 | -0.20 | -0.11 | -0.00 | 0.043 |
|  | Social engagement |  | -0.00 | -0.01 | -0.05 | 0.05 | 0.950 |
|  | Depression |  | -0.08 | -0.10 | -0.22 | 0.05 | 0.208 |
| Minimally adjusted model 0.15 | | | | | | | |
|  | Age |  | -0.08 | -0.39 | -0.12 | -0.05 | 0.000 |
|  | Sex |  | -0.07 | -0.04 | -0.68 | 0.53 | 0.810 |
| Testing mode model 0.15 | | | | | | | |
|  | Age |  | -0.01 | -0.39 | -0.58 | 0.56 | 0.973 |
|  | Mode |  | -0.08 | -0.01 | -0.12 | -0.05 | 0.000 |
| **Affective theory of mind** | | | | | | | |
| **Affective (TASIT-S)** 0.24 0.001 | | | | | | | |
|  | Age |  | -0.09 | -0.40 | -0.12 | -0.05 | 0.000 |
|  | Sex |  | -0.27 | -0.13 | -0.91 | 0.37 | 0.407 |
|  | Education |  | -0.03 | -0.07 | -0.11 | 0.04 | 0.401 |
|  | Cognition |  | 0.08 | 0.19 | 0.02 | 0.14 | 0.011 |
|  | Hearing |  | -0.03 | -0.11 | -0.08 | 0.01 | 0.115 |
|  | Social engagement |  | 0.01 | 0.03 | -0.04 | 0.06 | 0.645 |
|  | Depression |  | -0.09 | -0.10 | -0.21 | 0.04 | 0.166 |
| Minimally adjusted model 0.18 | | | | | | | |
|  | Age |  | -0.10 | -0.43 | -0.13 | -0.06 | 0.000 |
|  | Sex |  | -0.08 | -0.04 | -0.70 | 0.53 | 0.787 |
| Testing mode model 0.18 | | | | | | | |
|  | Age |  | -0.12 | -0.43 | -0.71 | 0.47 | 0.690 |
|  | Mode |  | -0.10 | -0.06 | -0.13 | -0.06 | 0.000 |
| **Affective (RME-R)** 0.23 | | | | | | | |
|  | Age |  | -0.01 | -0.03 | -0.09 | 0.07 | 0.779 |
|  | Sex |  | 0.17 | 0.04 | -1.08 | 1.43 | 0.784 |
|  | Education |  | 0.21 | 0.22 | 0.05 | 0.36 | 0.010 |
|  | Cognition |  | 0.31 | 0.37 | 0.15 | 0.47 | 0.000 |
|  | Hearing |  | -0.00 | -0.00 | -0.09 | 0.08 | 0.955 |
|  | Social engagement |  | -0.05 | -0.07 | -0.15 | 0.05 | 0.349 |
|  | Depression |  | -0.10 | -0.06 | -0.30 | 0.10 | 0.306 |
| Minimally adjusted model 0.01 | | | | | | | |
|  | Age |  | -0.04 | -0.08 | -0.12 | 0.04 | 0.370 |
|  | Sex |  | 0.46 | 0.12 | -0.92 | 1.85 | 0.510 |
| Testing mode model 0.01 | | | | | | | |
|  | Age |  | 0.32 | -0.08 | -0.96 | 1.60 | 0.626 |
|  | Mode |  | -0.04 | 0.08 | -0.12 | 0.04 | 0.377 |
| **Cognitive and affective theory of mind combined** | | | | | | | |
| **Sarcastic exchanges** 0.09 0.001 | | | | | | | |
|  | Age |  | -0.06 | -0.18 | -0.11 | -0.01 | 0.020 |
|  | Sex |  | -0.62 | -0.21 | -1.56 | 0.31 | 0.191 |
|  | Education |  | 0.03 | 0.05 | -0.08 | 0.14 | 0.540 |
|  | Cognition |  | 0.04 | 0.06 | -0.07 | 0.14 | 0.466 |
|  | Hearing |  | -0.07 | -0.15 | -0.15 | 0.02 | 0.121 |
|  | Social engagement |  | 0.00 | 0.00 | -0.08 | 0.08 | 0.958 |
|  | Depression |  | 0.08 | 0.06 | -0.09 | 0.25 | 0.365 |
| Minimally adjusted model 0.06 | | | | | | | |
|  | Age |  | -0.08 | -0.24 | -0.12 | -0.03 | 0.001 |
|  | Sex |  | -0.43 | -0.15 | -1.37 | 0.52 | 0.371 |
| Testing mode model 0.06 | | | | | | | |
|  | Age |  | -0.36 | -0.24 | -1.27 | 0.56 | 0.439 |
|  | Mode |  | -0.08 | -0.12 | -0.12 | -0.03 | 0.001 |
| **Sincere exchanges** 0.12 0.042 | | | | | | | |
|  | Age |  | -0.09 | -0.24 | -0.16 | -0.03 | 0.007 |
|  | Sex |  | 0.15 | 0.04 | -1.04 | 1.34 | 0.800 |
|  | Education |  | -0.05 | -0.05 | -0.19 | 0.10 | 0.518 |
|  | Cognition |  | 0.07 | 0.09 | -0.05 | 0.18 | 0.262 |
|  | Hearing |  | -0.08 | -0.15 | -0.17 | 0.00 | 0.058 |
|  | Social engagement |  | -0.02 | -0.04 | -0.12 | 0.07 | 0.610 |
|  | Depression |  | -0.26 | -0.16 | -0.59 | 0.08 | 0.132 |
| Minimally adjusted model 0.06 | | | | | | | |
|  | Age |  | -0.09 | -0.23 | -0.15 | -0.03 | 0.004 |
|  | Sex |  | 0.32 | 0.09 | -0.83 | 1.48 | 0.582 |
| Testing mode model 0.06 | | | | | | | |
|  | Age |  | -0.14 | -0.24 | -1.24 | 0.95 | 0.796 |
|  | Mode |  | -0.09 | -0.04 | -0.16 | -0.03 | 0.002 |
| **Lying exchanges** 0.13 0.008 | | | | | | | |
|  | Age |  | -0.06 | -0.23 | -0.10 | -0.02 | 0.004 |
|  | Sex |  | 0.34 | 0.15 | -0.45 | 1.13 | 0.393 |
|  | Education |  | -0.04 | -0.07 | -0.13 | 0.05 | 0.409 |
|  | Cognition |  | 0.07 | 0.14 | 0.01 | 0.13 | 0.025 |
|  | Hearing |  | -0.02 | -0.04 | -0.08 | 0.05 | 0.629 |
|  | Social engagement |  | 0.04 | 0.10 | -0.02 | 0.10 | 0.210 |
|  | Depression |  | -0.07 | -0.07 | -0.26 | 0.12 | 0.458 |
| Minimally adjusted model 0.07 | | | | | | | |
|  | Age |  | -0.06 | -0.25 | -0.10 | -0.03 | 0.001 |
|  | Sex |  | 0.43 | 0.19 | -0.35 | 1.21 | 0.276 |
| Testing mode model 0.07 | | | | | | | |
|  | Age |  | -0.07 | -0.26 | -0.10 | -0.03 | 0.000 |
|  | Mode |  | -0.17 | -0.07 | -0.92 | 0.57 | 0.648 |
| **Enriched sarcastic exchange** 0.17 0.002 | | | | | | | |
|  | Age |  | -0.08 | -0.29 | -0.12 | -0.04 | 0.000 |
|  | Sex |  | -0.75 | -0.30 | -1.53 | 0.03 | 0.058 |
|  | Education |  | 0.05 | 0.09 | -0.04 | 0.14 | 0.246 |
|  | Cognition |  | 0.10 | 0.20 | 0.03 | 0.18 | 0.010 |
|  | Hearing |  | -0.01 | -0.04 | -0.07 | 0.04 | 0.597 |
|  | Social engagement |  | -0.00 | -0.01 | -0.08 | 0.07 | 0.902 |
|  | Depression |  | -0.07 | -0.06 | -0.23 | 0.09 | 0.379 |
| Minimally adjusted model 0.11 | | | | | | | |
|  | Age |  | -0.09 | -0.34 | -0.13 | -0.05 | 0.000 |
|  | Sex |  | -0.56 | -0.22 | -1.30 | 0.18 | 0.137 |
| Testing mode model 0.11 | | | | | | | |
|  | Age |  | 0.26 | -0.31 | -0.52 | 1.03 | 0.517 |
|  | Mode |  | -0.09 | 0.10 | -0.13 | -0.04 | 0.000 |
| **Emotional empathy** 0.23 | | | | | | | |
|  | Age |  | -0.06 | -0.12 | -0.15 | 0.02 | 0.126 |
|  | Sex |  | 3.77 | 0.79 | 2.17 | 5.37 | 0.000 |
|  | Education |  | -0.02 | -0.02 | -0.20 | 0.16 | 0.803 |
|  | Cognition |  | 0.05 | 0.05 | -0.12 | 0.23 | 0.531 |
|  | Hearing |  | 0.09 | 0.12 | -0.01 | 0.20 | 0.086 |
|  | Social engagement |  | 0.18 | 0.22 | 0.03 | 0.33 | 0.022 |
|  | Depression |  | 0.08 | 0.04 | -0.20 | 0.37 | 0.563 |
| Minimally adjusted model 0.19 | | | | | | | |
|  | Age |  | -0.07 | -0.12 | -0.14 | 0.01 | 0.094 |
|  | Sex |  | 4.05 | 0.85 | 2.52 | 5.59 | 0.000 |
| Testing mode model 0.03 | | | | | | | |
|  | Age |  | 0.47 | -0.17 | -1.05 | 1.98 | 0.543 |
|  | Mode |  | -0.09 | 0.10 | -0.17 | -0.00 | 0.045 |