

# OSF Material 1: Detailed Result Tables of Model Evaluations

## Results for the Content Domain Reasoning Ability

Table 1: Content domain Reasoning ability, outcome category global self-evaluation: Results of model comparisons

| nicenames                   | K | AICc     | Delta_AICc | w     | LL       | b1   | b2    | b3    | b4   | b5    |
|-----------------------------|---|----------|------------|-------|----------|------|-------|-------|------|-------|
| Curvilinear PSV             | 6 | 11576.37 | 0.00       | 0.961 | -5782.11 | 0.24 | 0.00  | -0.07 | 0.00 | 0.00  |
| Full model                  | 9 | 11580.87 | 4.50       | (-)   | -5781.28 | 0.24 | 0.01  | -0.08 | 0.04 | 0.01  |
| Beneficial PSV Only         | 5 | 11582.79 | 6.42       | 0.039 | -5786.34 | 0.27 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial PSV and Ability  | 6 | 11584.80 | 8.43       | (-)   | -5786.33 | 0.27 | 0.01  | 0.00  | 0.00 | 0.00  |
| Beneficial SE               | 6 | 11584.83 | 8.47       | (-)   | -5786.34 | 0.27 | 0.00  | 0.00  | 0.00 | 0.00  |
| Interaction                 | 7 | 11586.74 | 10.37      | (-)   | -5786.27 | 0.27 | 0.01  | 0.00  | 0.01 | 0.00  |
| Optimal Margin              | 6 | 11602.99 | 26.62      | 0     | -5795.42 | 0.13 | -0.13 | -0.05 | 0.10 | -0.05 |
| Self-Knowledge              | 5 | 11617.82 | 41.45      | 0     | -5803.86 | 0.00 | 0.00  | -0.05 | 0.10 | -0.05 |
| Null model                  | 4 | 11623.38 | 47.01      | 0     | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial Ability Only     | 5 | 11623.90 | 47.53      | (-)   | -5806.90 | 0.00 | 0.05  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV Only        | 5 | 11625.42 | 49.05      | (-)   | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Curvilinear Ability         | 6 | 11625.94 | 49.57      | (-)   | -5806.90 | 0.00 | 0.05  | 0.00  | 0.00 | 0.00  |
| Detrimental SE              | 6 | 11625.94 | 49.57      | (-)   | -5806.90 | 0.00 | 0.05  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV and Ability | 6 | 11627.46 | 51.09      | (-)   | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $\Delta AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 2: Content domain Reasoning ability, outcome category well-being: Results of model comparisons

| nicenames                   | K | AICc     | Delta_AICc | w     | LL       | b1   | b2    | b3    | b4   | b5    |
|-----------------------------|---|----------|------------|-------|----------|------|-------|-------|------|-------|
| Curvilinear PSV             | 6 | 11591.45 | 0.00       | 0.727 | -5789.65 | 0.19 | 0.00  | -0.07 | 0.00 | 0.00  |
| Full model                  | 9 | 11593.69 | 2.24       | 0.237 | -5787.69 | 0.19 | 0.02  | -0.09 | 0.08 | -0.01 |
| Beneficial PSV Only         | 5 | 11597.53 | 6.08       | 0.035 | -5793.71 | 0.22 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial PSV and Ability  | 6 | 11599.32 | 7.87       | (-)   | -5793.59 | 0.22 | 0.02  | 0.00  | 0.00 | 0.00  |
| Beneficial SE               | 6 | 11599.57 | 8.12       | (-)   | -5793.71 | 0.22 | 0.00  | 0.00  | 0.00 | 0.00  |
| Interaction                 | 7 | 11600.43 | 8.98       | (-)   | -5793.11 | 0.22 | 0.02  | 0.00  | 0.04 | 0.00  |
| Optimal Margin              | 6 | 11605.71 | 14.26      | 0.001 | -5796.78 | 0.10 | -0.10 | -0.06 | 0.12 | -0.06 |
| Self-Knowledge              | 5 | 11613.25 | 21.80      | 0     | -5801.57 | 0.00 | 0.00  | -0.06 | 0.12 | -0.06 |
| Null model                  | 4 | 11623.38 | 31.93      | 0     | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial Ability Only     | 5 | 11623.62 | 32.17      | (-)   | -5806.76 | 0.00 | 0.06  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV Only        | 5 | 11625.42 | 33.96      | (-)   | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Curvilinear Ability         | 6 | 11625.66 | 34.20      | (-)   | -5806.75 | 0.00 | 0.06  | 0.00  | 0.00 | -0.00 |
| Detrimental SE              | 6 | 11625.66 | 34.21      | (-)   | -5806.76 | 0.00 | 0.06  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV and Ability | 6 | 11627.46 | 36.01      | (-)   | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $\Delta AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 3: Content domain Reasoning ability, outcome category self-rated agentic outcomes: Results of model comparisons

| nicens                      | K | AICc     | Delta_AICc | w   | LL       | b1   | b2    | b3    | b4   | b5    |
|-----------------------------|---|----------|------------|-----|----------|------|-------|-------|------|-------|
| Beneficial PSV Only         | 5 | 11592.84 | 0.00       | 1   | -5791.37 | 0.24 | 0.00  | 0.00  | 0.00 | 0.00  |
| Curvilinear PSV             | 6 | 11594.81 | 1.96       | (-) | -5791.33 | 0.23 | 0.00  | -0.01 | 0.00 | 0.00  |
| Beneficial PSV and Ability  | 6 | 11594.81 | 1.97       | (-) | -5791.33 | 0.24 | 0.01  | 0.00  | 0.00 | 0.00  |
| Beneficial SE               | 6 | 11594.89 | 2.04       | (-) | -5791.37 | 0.24 | 0.00  | 0.00  | 0.00 | 0.00  |
| Interaction                 | 7 | 11596.71 | 3.86       | (-) | -5791.25 | 0.24 | 0.01  | 0.00  | 0.01 | 0.00  |
| Full model                  | 9 | 11599.81 | 6.97       | (-) | -5790.75 | 0.23 | 0.00  | -0.01 | 0.03 | -0.03 |
| Optimal Margin              | 6 | 11612.52 | 19.67      | 0   | -5800.19 | 0.11 | -0.11 | -0.03 | 0.06 | -0.03 |
| Self-Knowledge              | 5 | 11622.65 | 29.80      | 0   | -5806.27 | 0.00 | 0.00  | -0.03 | 0.06 | -0.03 |
| Null model                  | 4 | 11623.38 | 30.54      | 0   | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial Ability Only     | 5 | 11623.99 | 31.15      | (-) | -5806.94 | 0.00 | 0.05  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV Only        | 5 | 11625.42 | 32.57      | (-) | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Curvilinear Ability         | 6 | 11625.52 | 32.68      | (-) | -5806.69 | 0.00 | 0.04  | 0.00  | 0.00 | -0.02 |
| Detrimental SE              | 6 | 11626.03 | 33.19      | (-) | -5806.94 | 0.00 | 0.05  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV and Ability | 6 | 11627.46 | 34.61      | (-) | -5807.65 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $Delta\_AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 4: Content domain Reasoning ability, outcome category peer-rated agentic outcomes: Results of model comparisons

| nicens                      | K | AICc     | Delta_AICc | w     | LL       | b1   | b2   | b3    | b4    | b5    |
|-----------------------------|---|----------|------------|-------|----------|------|------|-------|-------|-------|
| Beneficial PSV and Ability  | 6 | 11586.93 | 0.00       | 0.768 | -5787.39 | 0.12 | 0.20 | 0.00  | 0.00  | 0.00  |
| Interaction                 | 7 | 11588.98 | 2.05       | (-)   | -5787.39 | 0.12 | 0.20 | 0.00  | 0.00  | 0.00  |
| Full model                  | 9 | 11589.79 | 2.86       | 0.184 | -5785.74 | 0.10 | 0.20 | -0.04 | -0.03 | -0.01 |
| Beneficial Ability Only     | 5 | 11592.47 | 5.54       | 0.048 | -5791.18 | 0.00 | 0.22 | 0.00  | 0.00  | 0.00  |
| Curvilinear Ability         | 6 | 11594.17 | 7.24       | (-)   | -5791.01 | 0.00 | 0.21 | 0.00  | 0.00  | -0.02 |
| Detrimental SE              | 6 | 11594.52 | 7.58       | (-)   | -5791.18 | 0.00 | 0.22 | 0.00  | 0.00  | 0.00  |
| Curvilinear PSV             | 6 | 11606.79 | 19.85      | 0     | -5797.32 | 0.13 | 0.00 | -0.04 | 0.00  | 0.00  |
| Beneficial PSV Only         | 5 | 11607.35 | 20.41      | 0     | -5798.62 | 0.15 | 0.00 | 0.00  | 0.00  | 0.00  |
| Beneficial SE               | 6 | 11609.39 | 22.45      | (-)   | -5798.62 | 0.15 | 0.00 | 0.00  | 0.00  | 0.00  |
| Null model                  | 4 | 11617.70 | 30.77      | 0     | -5804.82 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  |
| Self-Knowledge              | 5 | 11618.03 | 31.10      | (-)   | -5803.96 | 0.00 | 0.00 | -0.02 | 0.05  | -0.02 |
| Detrimental PSV Only        | 5 | 11619.74 | 32.81      | (-)   | -5804.82 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  |
| Optimal Margin              | 6 | 11620.08 | 33.14      | (-)   | -5803.96 | 0.00 | 0.00 | -0.02 | 0.05  | -0.02 |
| Detrimental PSV and Ability | 6 | 11621.78 | 34.85      | (-)   | -5804.82 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $Delta\_AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 5: Content domain Reasoning ability, outcome category peer-rated communal outcomes: Results of model comparisons

| nicens                      | K | AICc     | Delta_AICc | w     | LL       | b1    | b2   | b3    | b4   | b5    |
|-----------------------------|---|----------|------------|-------|----------|-------|------|-------|------|-------|
| Detrimental SE              | 6 | 11606.96 | 0.00       | 0.695 | -5797.41 | -0.08 | 0.15 | 0.00  | 0.00 | 0.00  |
| Beneficial Ability Only     | 5 | 11608.63 | 1.67       | 0.301 | -5799.26 | 0.00  | 0.14 | 0.00  | 0.00 | 0.00  |
| Interaction                 | 7 | 11609.01 | 2.05       | (-)   | -5797.41 | -0.08 | 0.15 | 0.00  | 0.00 | 0.00  |
| Curvilinear Ability         | 6 | 11609.86 | 2.90       | (-)   | -5798.86 | 0.00  | 0.13 | 0.00  | 0.00 | -0.03 |
| Beneficial PSV and Ability  | 6 | 11610.68 | 3.72       | (-)   | -5799.26 | 0.00  | 0.14 | 0.00  | 0.00 | 0.00  |
| Full model                  | 9 | 11611.95 | 4.99       | (-)   | -5796.81 | -0.09 | 0.14 | -0.02 | 0.01 | -0.03 |
| Null model                  | 4 | 11617.70 | 10.74      | 0.003 | -5804.82 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  |
| Detrimental PSV Only        | 5 | 11617.98 | 11.02      | (-)   | -5803.94 | -0.06 | 0.00 | 0.00  | 0.00 | 0.00  |
| Self-Knowledge              | 5 | 11618.63 | 11.67      | (-)   | -5804.26 | 0.00  | 0.00 | -0.02 | 0.04 | -0.02 |
| Curvilinear PSV             | 6 | 11619.63 | 12.67      | 0.001 | -5803.74 | -0.06 | 0.00 | -0.02 | 0.00 | 0.00  |
| Beneficial PSV Only         | 5 | 11619.74 | 12.78      | (-)   | -5804.82 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  |
| Detrimental PSV and Ability | 6 | 11620.02 | 13.06      | (-)   | -5803.94 | -0.06 | 0.00 | 0.00  | 0.00 | 0.00  |
| Optimal Margin              | 6 | 11620.67 | 13.71      | (-)   | -5804.26 | 0.00  | 0.00 | -0.02 | 0.04 | -0.02 |
| Beneficial SE               | 6 | 11621.78 | 14.82      | (-)   | -5804.82 | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $Delta\_AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

### Results for the Content Domain Vocabulary Knowledge

Table 6: Content domain Vocabulary knowledge, outcome category global self-evaluation: Results of model comparisons

| nicens                      | K  | AICc     | Delta_AICc | w     | LL        | b1   | b2    | b3    | b4   | b5    |
|-----------------------------|----|----------|------------|-------|-----------|------|-------|-------|------|-------|
| Full model                  | 10 | 49453.67 | 0.00       | 0.582 | -24716.79 | 0.32 | -0.04 | -0.04 | 0.03 | -0.00 |
| Curvilinear PSV             | 7  | 49454.78 | 1.10       | 0.335 | -24720.37 | 0.31 | 0.00  | -0.04 | 0.00 | 0.00  |
| Beneficial SE               | 7  | 49457.85 | 4.18       | 0.072 | -24721.91 | 0.34 | -0.04 | 0.00  | 0.00 | 0.00  |
| Interaction                 | 8  | 49458.81 | 5.14       | (-)   | -24721.38 | 0.34 | -0.04 | 0.00  | 0.02 | 0.00  |
| Beneficial PSV Only         | 6  | 49461.50 | 7.83       | 0.012 | -24724.73 | 0.33 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial PSV and Ability  | 7  | 49463.51 | 9.84       | (-)   | -24724.73 | 0.33 | 0.00  | 0.00  | 0.00 | 0.00  |
| Optimal Margin              | 7  | 49587.63 | 133.96     | 0     | -24786.80 | 0.19 | -0.19 | -0.04 | 0.07 | -0.04 |
| Self-Knowledge              | 6  | 49728.21 | 274.54     | 0     | -24858.09 | 0.00 | 0.00  | -0.04 | 0.09 | -0.04 |
| Beneficial Ability Only     | 6  | 49762.34 | 308.67     | 0     | -24875.15 | 0.00 | 0.03  | 0.00  | 0.00 | 0.00  |
| Null model                  | 5  | 49763.27 | 309.60     | 0     | -24876.62 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Curvilinear Ability         | 7  | 49764.35 | 310.68     | (-)   | -24875.15 | 0.00 | 0.03  | 0.00  | 0.00 | 0.00  |
| Detrimental SE              | 7  | 49764.35 | 310.68     | (-)   | -24875.15 | 0.00 | 0.03  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV Only        | 6  | 49765.28 | 311.61     | (-)   | -24876.62 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV and Ability | 7  | 49767.29 | 313.62     | (-)   | -24876.62 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $Delta\_AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 7: Content domain Vocabulary knowledge, outcome category well-being: Results of model comparisons

| nicensames                  | K  | AICc     | Delta_AICc | w     | LL        | b1   | b2    | b3    | b4    | b5    |
|-----------------------------|----|----------|------------|-------|-----------|------|-------|-------|-------|-------|
| Curvilinear PSV             | 7  | 49622.07 | 0.00       | 0.763 | -24804.02 | 0.19 | 0.00  | -0.04 | 0.00  | 0.00  |
| Full model                  | 10 | 49624.46 | 2.39       | 0.231 | -24802.19 | 0.20 | -0.04 | -0.04 | -0.00 | -0.01 |
| Beneficial SE               | 7  | 49632.31 | 10.24      | 0.005 | -24809.13 | 0.23 | -0.04 | 0.00  | 0.00  | 0.00  |
| Beneficial PSV Only         | 6  | 49633.95 | 11.88      | 0.002 | -24810.96 | 0.22 | 0.00  | 0.00  | 0.00  | 0.00  |
| Interaction                 | 8  | 49634.32 | 12.25      | (-)   | -24809.13 | 0.23 | -0.04 | 0.00  | 0.00  | 0.00  |
| Beneficial PSV and Ability  | 7  | 49635.96 | 13.89      | (-)   | -24810.96 | 0.22 | 0.00  | 0.00  | 0.00  | 0.00  |
| Optimal Margin              | 7  | 49681.91 | 59.83      | 0     | -24833.93 | 0.13 | -0.13 | -0.03 | 0.05  | -0.03 |
| Self-Knowledge              | 6  | 49747.24 | 125.17     | 0     | -24867.61 | 0.00 | 0.00  | -0.03 | 0.07  | -0.03 |
| Null model                  | 5  | 49766.11 | 144.03     | 0     | -24878.04 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  |
| Beneficial Ability Only     | 6  | 49767.44 | 145.37     | (-)   | -24877.70 | 0.00 | 0.02  | 0.00  | 0.00  | 0.00  |
| Detrimental PSV Only        | 6  | 49768.12 | 146.04     | (-)   | -24878.04 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  |
| Curvilinear Ability         | 7  | 49768.32 | 146.25     | (-)   | -24877.14 | 0.00 | 0.01  | 0.00  | 0.00  | -0.01 |
| Detrimental SE              | 7  | 49769.45 | 147.38     | (-)   | -24877.70 | 0.00 | 0.02  | 0.00  | 0.00  | 0.00  |
| Detrimental PSV and Ability | 7  | 49770.13 | 148.05     | (-)   | -24878.04 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $\Delta AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 8: Content domain Vocabulary knowledge, outcome category self-rated agentic outcomes: Results of model comparisons

| nicensames                  | K  | AICc     | Delta_AICc | w   | LL        | b1   | b2    | b3    | b4   | b5    |
|-----------------------------|----|----------|------------|-----|-----------|------|-------|-------|------|-------|
| Beneficial SE               | 7  | 49341.40 | 0.00       | 1   | -24663.68 | 0.39 | -0.15 | 0.00  | 0.00 | 0.00  |
| Interaction                 | 8  | 49343.09 | 1.69       | (-) | -24663.52 | 0.39 | -0.15 | 0.00  | 0.01 | 0.00  |
| Full model                  | 10 | 49345.92 | 4.52       | (-) | -24662.92 | 0.39 | -0.14 | 0.01  | 0.00 | 0.01  |
| Beneficial PSV Only         | 6  | 49400.07 | 58.66      | 0   | -24694.02 | 0.35 | 0.00  | 0.00  | 0.00 | 0.00  |
| Curvilinear PSV             | 7  | 49402.08 | 60.67      | (-) | -24694.02 | 0.35 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial PSV and Ability  | 7  | 49402.08 | 60.67      | (-) | -24694.02 | 0.35 | 0.00  | 0.00  | 0.00 | 0.00  |
| Optimal Margin              | 7  | 49442.77 | 101.37     | 0   | -24714.37 | 0.26 | -0.26 | -0.01 | 0.02 | -0.01 |
| Self-Knowledge              | 6  | 49731.63 | 390.23     | 0   | -24859.80 | 0.00 | 0.00  | -0.02 | 0.05 | -0.02 |
| Curvilinear Ability         | 7  | 49735.87 | 394.46     | 0   | -24860.91 | 0.00 | -0.06 | 0.00  | 0.00 | 0.00  |
| Detrimental PSV and Ability | 7  | 49735.87 | 394.46     | 0   | -24860.91 | 0.00 | -0.06 | 0.00  | 0.00 | 0.00  |
| Null model                  | 5  | 49740.57 | 399.17     | 0   | -24865.27 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Beneficial Ability Only     | 6  | 49742.58 | 401.17     | (-) | -24865.27 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Detrimental PSV Only        | 6  | 49742.58 | 401.17     | (-) | -24865.27 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |
| Detrimental SE              | 7  | 49744.59 | 403.19     | (-) | -24865.27 | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $\Delta AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 9: Content domain Vocabulary knowledge, outcome category self-rated communal outcomes: Results of model comparisons

| nicensames                  | K  | AICc     | Delta_AICc | w     | LL        | b1   | b2    | b3   | b4    | b5   |
|-----------------------------|----|----------|------------|-------|-----------|------|-------|------|-------|------|
| Beneficial SE               | 7  | 49687.94 | 0.00       | 0.636 | -24836.95 | 0.09 | -0.13 | 0.00 | 0.00  | 0.00 |
| Full model                  | 10 | 49689.05 | 1.12       | 0.364 | -24834.49 | 0.11 | -0.13 | 0.03 | -0.00 | 0.00 |
| Interaction                 | 8  | 49689.86 | 1.93       | (-)   | -24836.90 | 0.09 | -0.12 | 0.00 | 0.00  | 0.00 |
| Optimal Margin              | 7  | 49690.18 | 2.24       | (-)   | -24838.07 | 0.11 | -0.11 | 0.00 | 0.00  | 0.00 |
| Curvilinear Ability         | 7  | 49707.36 | 19.43      | 0     | -24846.66 | 0.00 | -0.10 | 0.00 | 0.00  | 0.00 |
| Detrimental PSV and Ability | 7  | 49707.36 | 19.43      | 0     | -24846.66 | 0.00 | -0.10 | 0.00 | 0.00  | 0.00 |
| Beneficial PSV Only         | 6  | 49724.86 | 36.92      | 0     | -24856.41 | 0.06 | 0.00  | 0.00 | 0.00  | 0.00 |
| Curvilinear PSV             | 7  | 49726.87 | 38.93      | (-)   | -24856.41 | 0.06 | 0.00  | 0.00 | 0.00  | 0.00 |
| Beneficial PSV and Ability  | 7  | 49726.87 | 38.93      | (-)   | -24856.41 | 0.06 | 0.00  | 0.00 | 0.00  | 0.00 |
| Null model                  | 5  | 49732.05 | 44.12      | 0     | -24861.02 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 |
| Self-Knowledge              | 6  | 49734.06 | 46.13      | (-)   | -24861.02 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 |
| Beneficial Ability Only     | 6  | 49734.06 | 46.13      | (-)   | -24861.02 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 |
| Detrimental PSV Only        | 6  | 49734.06 | 46.13      | (-)   | -24861.02 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 |
| Detrimental SE              | 7  | 49736.07 | 48.14      | (-)   | -24861.02 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00 |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $Delta\_AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).

Table 10: Content domain Vocabulary knowledge, outcome category peer-rated agentic outcomes: Results of model comparisons

| nicensames                  | K  | AICc     | Delta_AICc | w     | LL        | b1   | b2    | b3    | b4    | b5    |
|-----------------------------|----|----------|------------|-------|-----------|------|-------|-------|-------|-------|
| Curvilinear PSV             | 7  | 44943.00 | 0.00       | 0.592 | -22464.48 | 0.15 | 0.00  | -0.04 | 0.00  | 0.00  |
| Beneficial PSV Only         | 6  | 44943.75 | 0.75       | 0.407 | -22465.86 | 0.17 | 0.00  | 0.00  | 0.00  | 0.00  |
| Beneficial SE               | 7  | 44945.71 | 2.71       | (-)   | -22465.83 | 0.17 | -0.01 | 0.00  | 0.00  | 0.00  |
| Beneficial PSV and Ability  | 7  | 44945.76 | 2.76       | (-)   | -22465.86 | 0.17 | 0.00  | 0.00  | 0.00  | 0.00  |
| Interaction                 | 8  | 44947.72 | 4.72       | (-)   | -22465.83 | 0.17 | -0.01 | 0.00  | 0.00  | 0.00  |
| Full model                  | 10 | 44948.05 | 5.05       | (-)   | -22463.98 | 0.16 | -0.00 | -0.04 | -0.03 | 0.01  |
| Optimal Margin              | 7  | 44959.05 | 16.05      | 0     | -22472.50 | 0.09 | -0.09 | -0.01 | 0.02  | -0.01 |
| Null model                  | 5  | 44967.25 | 24.25      | 0     | -22478.61 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  |
| Self-Knowledge              | 6  | 44968.27 | 25.28      | (-)   | -22478.12 | 0.00 | 0.00  | -0.01 | 0.03  | -0.01 |
| Beneficial Ability Only     | 6  | 44968.63 | 25.63      | (-)   | -22478.30 | 0.00 | 0.03  | 0.00  | 0.00  | 0.00  |
| Detrimental PSV Only        | 6  | 44969.26 | 26.26      | (-)   | -22478.61 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  |
| Curvilinear Ability         | 7  | 44970.64 | 27.64      | (-)   | -22478.30 | 0.00 | 0.03  | 0.00  | 0.00  | 0.00  |
| Detrimental SE              | 7  | 44970.64 | 27.64      | (-)   | -22478.30 | 0.00 | 0.03  | 0.00  | 0.00  | 0.00  |
| Detrimental PSV and Ability | 7  | 44971.27 | 28.27      | (-)   | -22478.61 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  |

*Note.* Regression coefficients  $b_1$  to  $b_5$  refer to the polynomial model  $Z = b_0 + b_1S + b_2R + b_3S^2 + b_4SR + b_5R^2$ .  $LL$  = maximized Log-Likelihood.  $K$  = number of estimated parameters (including residual variance and coefficients of dummy variables that encode the samples).  $AICc$  = second-order Akaike Information Criterion;  $Delta\_AICc$  = difference of model's  $AICc$  to best model's  $AICc$ ;  $w$  = Akaike weight. (-) = model was excluded from computation of Akaike weights, because the estimated model was redundant to a nested simpler model (see Additional OSF Material 5 for information about which models are nested).