Table 2. Correlations between the emotion recognition scores, the Benton Test of Facial Recognition, the Cattell Fluid Intelligence test and its four subtests, and the Visual Short-term Memory (VSTM) Learning Set Size 4 accuracy score.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean | SD | Anger | Disgust | Fear | Happiness | Sadness | Surprise | Benton | CattellTotal | Series Completion | Classification | Matrices | Conditions |
| Anger | 83.4 | 19.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Disgust | 86.2 | 18.3 | **.43**  |  |  |  |  |  |  |  |  |  |  |  |
| Fear | 75.3 | 21.9 | **.46**  | **.28** |  |  |  |  |  |  |  |  |  |  |
| Happiness | 97.5 | 5.4 | **.20** | **.18** | **.19** |  |  |  |  |  |  |  |  |  |
| Sadness | 92.5 | 13.3 | **.40** | **.23** | **.43** | **.18** |  |  |  |  |  |  |  |  |
| Surprise | 89.5 | 11.1 | **.26** | .12\*\* | **.18** | **.12** | **.31** |  |  |  |  |  |  |  |
| Benton | 85.0 | 8.5 | **.30** | .09\* | **.38** | .03 | **.35** | **.27** |  |  |  |  |  |  |
| Cattell Total | 69.5 | 14.6 | **.43** | **.15** | **.48** | .12\*\* | **.42** | **.33** | **.42** |  |  |  |  |  |
| -Series Completion | 78.6 | 16.9 | **.39** | **.17** | **.41** | .12\*\* | **.41** | **.34** | **.41** | **.84** |  |  |  |  |
| -Classification | 58.1 | 15.2 | **.30** | .06 | **.34** | .07 | **.29** | **.22** | **.26** | **.81** | **.54** |  |  |  |
| -Matrices | 75.7 | 18.2 | **.40** | **.15** | **.46** | .13\*\* | **.36** | **.27** | **.43** | **.85** | **.64** | **.58** |  |  |
| -Conditions | 66.2 | 23.0 | **.32** | .10\* | **.37** | .08\* | **.31** | **.27** | **.29** | **.79** | **.56** | **.53** | **.54** |  |
| VSTM | 1.43 | .37 | .01 | -.02 | .01 | .001 | -.07 | .03 | -.05 | .01 | -.06 | .05 | .06 | -.01 |

Performance scores ranged from 5 to 100% accuracy. Note. \* p < .05; \*\* p < .01; Bold indicates p < .001.

Figure 3. Graphical representation of the model with standardized parameter estimates (and 95% confidence intervals) and the added Anger-Disgust pathway and Visual short-term memory (VSTM) derived from Learning Set Size 4. All path coefficients in bold were significant at p<.001.

Anger Face

Disgust Face

Fear Face

Surprise Face

Happiness Face

Sadness Face

Series Completion

Classification

Matrices

Conditions

**.64**

[.59-.68]

**.32**

[.25-.39]

**.69**

[.64-.73]

**.25**

[.17-.32]

**.64**

[.59-.68]

**.42**

[.35-.48]

**.28**

[.20-.35]

**.75**

[.72-.79]

**.48**

[.42-.54]

.03

[-.05, .11]

.01

[-.07, .09]

**.80**

[.77-.83]

**.69**

[.65-.73]

**.81**

[.79-.84]

**.69**

[.65-.73]

Identity

Visual short-term memory

.03

[-.02, .13]

**.31**

[.23-.38]