shows the fits for the different model instantiations applied to Experiment 1.

|  |  |  |
| --- | --- | --- |
| Computational Models | root mean square (RMSE) | mean absolute error (MAE) |
| Connectionist Model (800 epochs) | .14 | .09 |
| Connectionist Model (1600 epochs) | .18 | .15 |
| Connectionist Model (2000 epochs) | .19 | .16 |
| Connectionist Model (3000 epochs) | .22 | .19 |
| Connectionist Model (4000 epochs) | .23 | .20 |
| *Average Connectionist Model Fit* | .19 | .16 |
| Bayesian model (.5) | .19 | .17 |
| **Bayesian model (.65)** | **.10** | **.10** |
| Bayesian model (.80)++ | .14 | .09 |
| Bayesian model (.95) | .26 | .24 |
| Bayesian model (1) | .31 | .29 |
| *Average Bayesian Model Fit* | .20 | .18 |

Table 3. Model fit indices for the various models and instantiations for the BB experimental and control conditions. The rows shaded light gray correspond to the best fitting individual connectionist and Bayesian models. Bold denotes the best-fitting individual model.

|  |  |  |
| --- | --- | --- |
| Computational Models | root mean square (RMSE) | mean absolute error (MAE) |
| **Connectionist Model (800 epochs)** | **.04** | **.04** |
| Connectionist Model (1600 epochs) | .06 | .05 |
| Connectionist Model (2000 epochs) | .08 | .06 |
| Connectionist Model (3000 epochs) | .09 | .09 |
| Connectionist Model (4000 epochs) | .11 | .10 |
| Average Connectionist Model Fit | .08 | .07 |
| Bayesian model (.5) | .22 | .21 |
| Bayesian model (.65) | .13 | .11 |
| Bayesian model (.80) | .14 | .13 |
| Bayesian model (.95) | .22 | .19 |
| Bayesian model (1) | .19 | .18 |
| *Average Bayesian Model Fit* | .18 | .16 |

Table 4. Model fit indices for the various models and instantiations for the ISO experimental and control conditions. The rows shaded light gray correspond to the best fitting individual connectionist and Bayesian models. Bold denotes the best-fitting individual model.

|  |  |  |
| --- | --- | --- |
| Computational Models | root mean square (RMSE) | mean absolute error (MAE) |
| Connectionist Model (800 epochs) | .13 | .11 |
| Connectionist Model (1600 epochs) | .18 | .15 |
| Connectionist Model (2000 epochs) | .19 | .16 |
| Connectionist Model (3000 epochs) | .21 | .18 |
| Connectionist Model (4000 epochs) | .22 | .19 |
| *Average Connectionist Model Fit* | .19 | .16 |
| Bayesian model (.5) | .13 | .11 |
| **Bayesian model (.65)** | **.12** | **.08** |
| Bayesian model (.80) | .17 | .14 |
| Bayesian model (.95) | .26 | .23 |
| Bayesian model (1) | .29 | .26 |
| *Average Bayesian Model Fit* | .19 | .16 |

Table 4. Model fit indices for the various models and instantiations for the experimental trials. The rows shaded light gray correspond to the best fitting individual connectionist and Bayesian models. Bold denotes the best-fitting individual model.

|  |  |  |
| --- | --- | --- |
| Computational Models | root mean square (RMSE) | mean absolute error (MAE) |
| **Connectionist Model (800 epochs)** | **.07** | **.05** |
| Connectionist Model (1600 epochs) | .08 | .06 |
| Connectionist Model (2000 epochs) | .10 | .07 |
| Connectionist Model (3000 epochs) | .12 | .09 |
| Connectionist Model (4000 epochs) | .13 | .11 |
| *Average Connectionist Model Fit* | .1 | .08 |
| Bayesian model (.5) | .26 | .25 |
| Bayesian model (.65) | .19 | .17 |
| Bayesian model (.80) | .14 | .08 |
| Bayesian model (.95) | .18 | .16 |
| Bayesian model (1) | .21 | .19 |
| *Average Bayesian Model Fit* | .2 | .17 |

Table 6. Model fit indices for the various models and instantiations for the control trials. The rows shaded light gray correspond to the best fitting individual connectionist and Bayesian models. Bold denotes the best-fitting individual model.

|  |  |  |
| --- | --- | --- |
| Best-fitting Model competition results | | |
|  | Win | Loss |
| Connectionist model | 3 | 2 |
| Bayesian model | 2 | 3 |

|  |  |  |
| --- | --- | --- |
| Overall Model competition results | | |
|  | Win | Loss |
| Connectionist model | 3 | 2 |
| Bayesian model | 2 | 3 |