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)** | **.10** | **.07** |
| Connectionist Model (1600 epochs) | .13 | .09 |
| Connectionist Model (2000 epochs) | .15 | .11 |
| Connectionist Model (3000 epochs) | .17 | .14 |
| Bayesian model (.5) | .21 | .19 |
| Bayesian model (.65) | .16 | .13 |
| Bayesian model (.80) | .15 | .10 |
| Bayesian model (.95) | .22 | .19 |
| Bayesian model (1) | .25 | .22 |

Table 2. Overall Model fit indices for the various models and instantiations. The shaded rows correspond to the best fitting connectionist and Bayesian models. Bold denotes overall model winner.

|  |  |  |
| --- | --- | --- |
| 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 |
| 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 |

Table 2. Model fit indices for the various models and instantiations for the BB experimental and control conditions. The shaded rows correspond to the best fitting connectionist and Bayesian models. Bold denotes overall model winner.

|  |  |  |
| --- | --- | --- |
| 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 |
| 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 |

Table 2. Model fit indices for the various models and instantiations for the ISO experimental and control conditions. The shaded rows correspond to the best fitting connectionist and Bayesian models. Bold denotes overall model winner.

|  |  |  |
| --- | --- | --- |
| 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 |
| **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 |

Table 2. Model fit indices for the various models and instantiations for the BB and ISO experimental conditions. The shaded rows correspond to the best fitting connectionist and Bayesian models. Bold denotes overall model winner.

|  |  |  |
| --- | --- | --- |
| 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 |
| 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 |

Table 2. Model fit indices for the various models and instantiations for the BB and ISO control conditions. The shaded rows correspond to the best fitting connectionist and Bayesian models.

|  |  |  |  |
| --- | --- | --- | --- |
| Model competition results | | | |
|  | Win | Loss | Ties |
| Connectionist model | 3 | 1 | 1 |
| Bayesian model | 1 | 3 | 1 |