



| O to S | Partial transfer  |            |               |               |            |           |       | Full transfer     |            |               |               |            |           |       |
|--------|-------------------|------------|---------------|---------------|------------|-----------|-------|-------------------|------------|---------------|---------------|------------|-----------|-------|
|        | $p_{\text{same}}$ | $\sigma_0$ | $\sigma_{30}$ | $\sigma_{50}$ | $\sigma_s$ | $\lambda$ | $NLL$ | $p_{\text{same}}$ | $\sigma_0$ | $\sigma_{30}$ | $\sigma_{50}$ | $\sigma_s$ | $\lambda$ | $NLL$ |
| Mean   | 0.62              | 116        | 141           | 178           | 214        | 0,08      | 120   | 0.80              | 116        | 141           | 178           | 214        | 0.08      | 156   |
| SEM    | 0.1               | 51         | 97            | 129           | 0          | 0,2       | 21    | 0.2               | 51         | 97            | 129           | 0          | 0.2       | 46    |

  

| S to O | Partial transfer  |            |               |               |            |           |       | Full transfer     |            |               |               |            |           |       |
|--------|-------------------|------------|---------------|---------------|------------|-----------|-------|-------------------|------------|---------------|---------------|------------|-----------|-------|
|        | $p_{\text{same}}$ | $\sigma_0$ | $\sigma_{30}$ | $\sigma_{50}$ | $\sigma_s$ | $\lambda$ | $NLL$ | $p_{\text{same}}$ | $\sigma_0$ | $\sigma_{30}$ | $\sigma_{50}$ | $\sigma_s$ | $\lambda$ | $NLL$ |
| Mean   | 0.88              | 97         | 93            | 102           | 381        | 0,09      | 118   | 0.73              | 97         | 93            | 102           | 381        | 0.09      | 156   |
| SEM    | 0.2               | 44         | 23            | 32            | 0          | 0,1       | 32    | 0.2               | 44         | 23            | 32            | 0          | 0.1       | 57    |

**Figure 3 - Supplement 2: Mean + SEM behavioural (dots) and model (shaded areas) results for body ownership (A & C) and synchrony detection (B & D) tasks in the *transfer* analysis.** In this analysis, the body ownership task and the synchrony judgment task are compared by using the BCI model parameters estimated for one perception (ownership or synchrony) to predict the data from the other perception (synchrony or ownership). Observed data for the 0% (black/purple dots), 30% (orange/dark blue dots), and 50% (red/light blue dots) of visual noise (body ownership/synchrony) and the corresponding predictions for the BCI model with the same  $p_{\text{same}}$  (full transfer; A & B) and with distinct  $p_{\text{same}}$  for each task (partial transfer C & D). Below are the corresponding estimated parameters and negative log likelihood. "O to S" corresponds to the fitting of synchrony data by the BCI model estimates from ownership data and "S to O" corresponds to the fitting of ownership data by the BCI model estimates from synchrony data.