

Supplemental Material

Research Articles | Behavioral/Cognitive

Switching between newly learned motor skills

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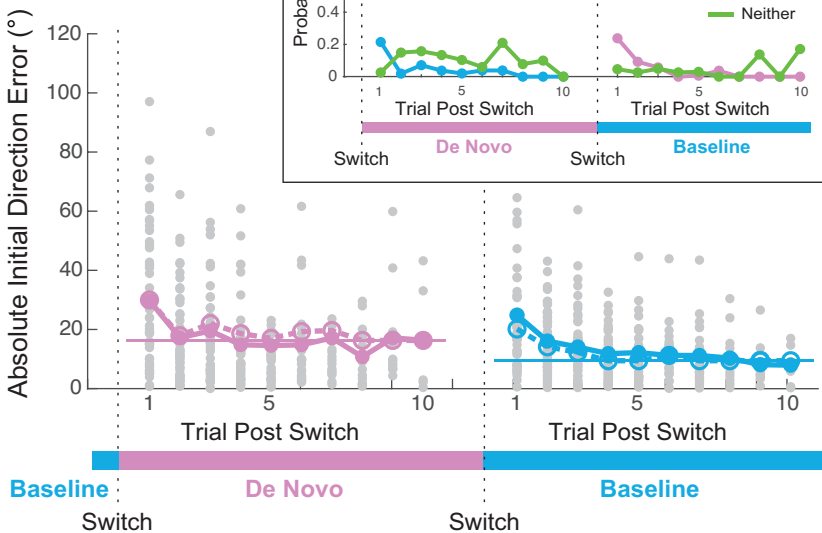
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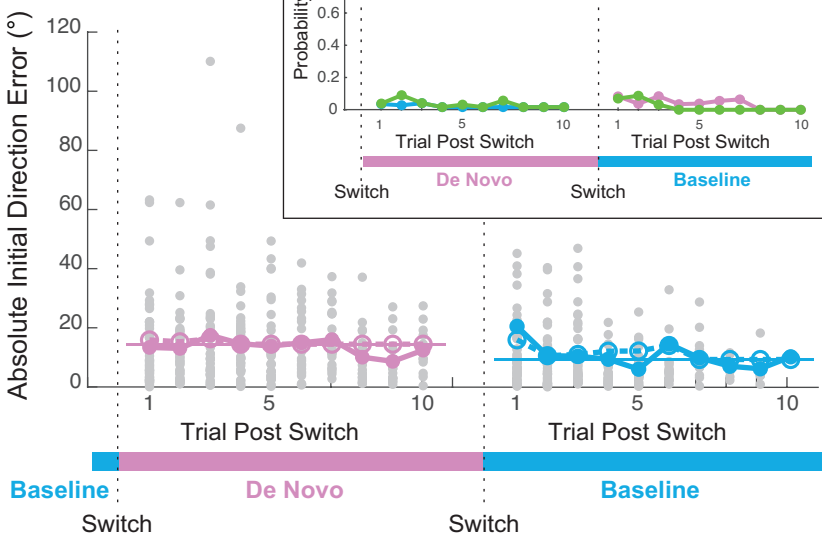
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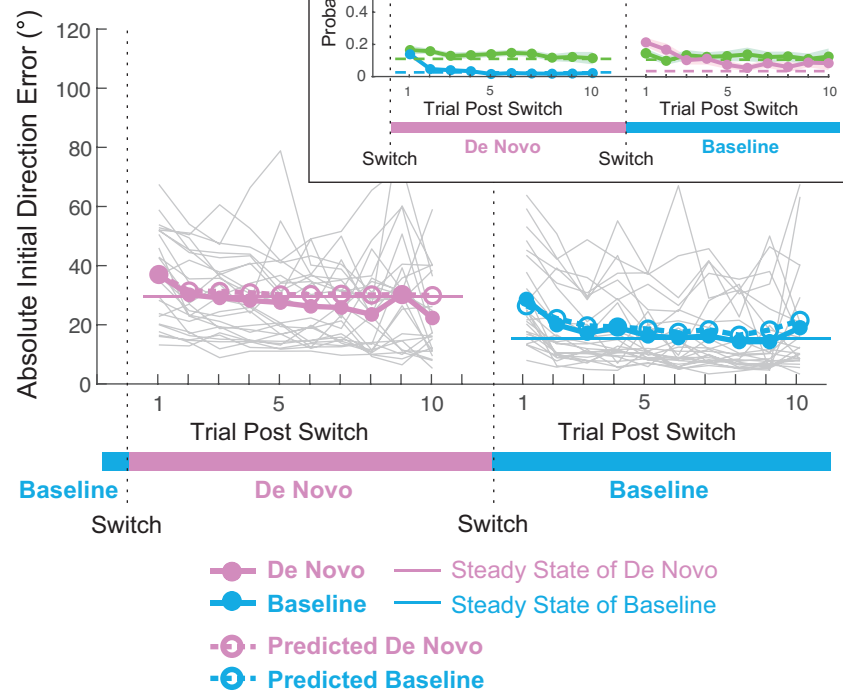
A Participant 1

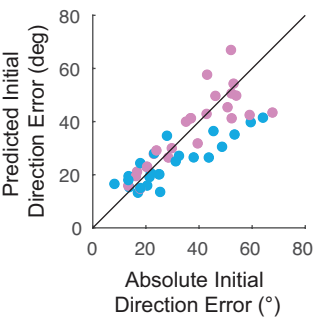
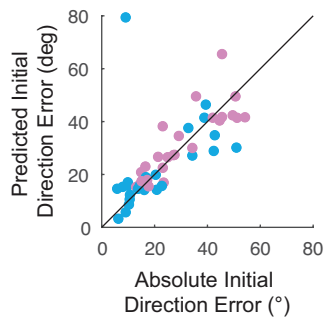
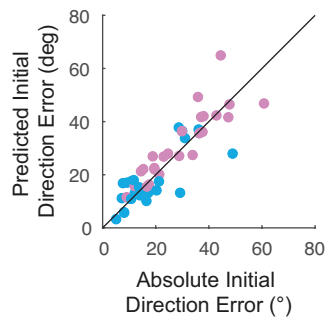
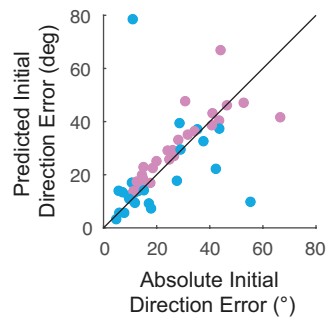
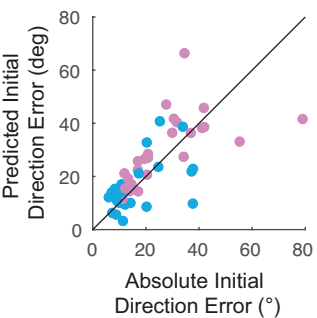
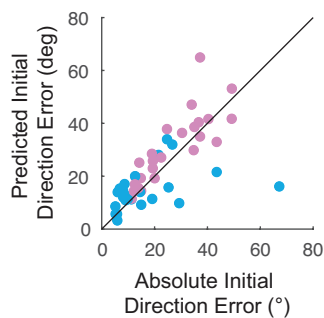
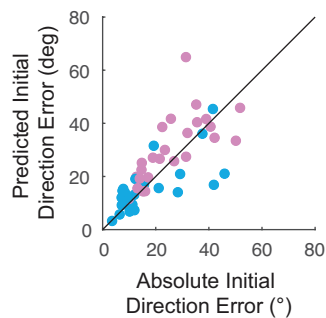
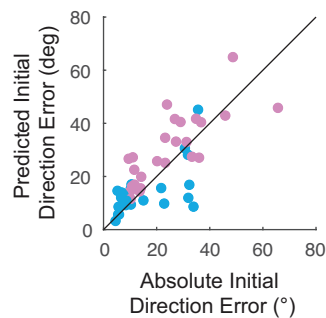
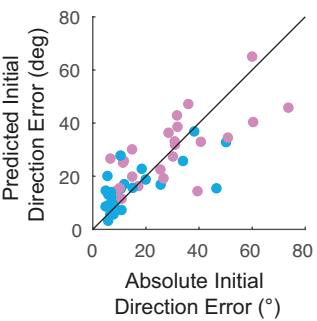
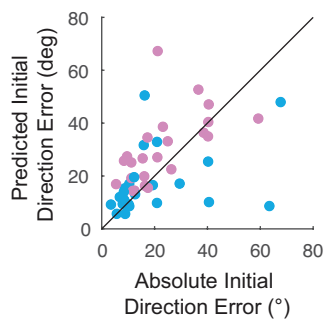


B Participant 2



C Group



A 1st Trial Post Switch**B** 2nd**C** 3rd**D** 4th**E** 5th**F** 6th**G** 7th**H** 8th**I** 9th**J** 10th

1 **Supplementary Figure S1. Persistence of pre-switch policy fully accounts for observed task-**
2 **switch errors.**

3 Panels A-C are adapted from Figure 2A-C in the main paper. Here, additional dashed lines and
4 open circles indicate predicted error based on the inferred probability of persisting with the pre-
5 switch trials (insets, same as Fig. 3D, F, G in the main paper).

1 Supplementary Figure S2. Trial-by-trial comparison of predicted and observed directional
2 errors.

3 In all panels, scatter plots compare actual observed directional error (x-axis) and predicted
4 directional error based on inferred probability of persisting with the pre-switch mapping (y-axis).
5 Each dot represents average across all appropriate trials for a single participant and switch
6 direction (blue: De Novo-to-Baseline, magenta: Baseline-to-De Novo). Note that, due to the
7 randomized timing of switching between mappings, data points only a few trials after a switch
8 reflect averages of greater numbers of trials compared to data points many trials after a switch,
9 which occurred rarely.

10