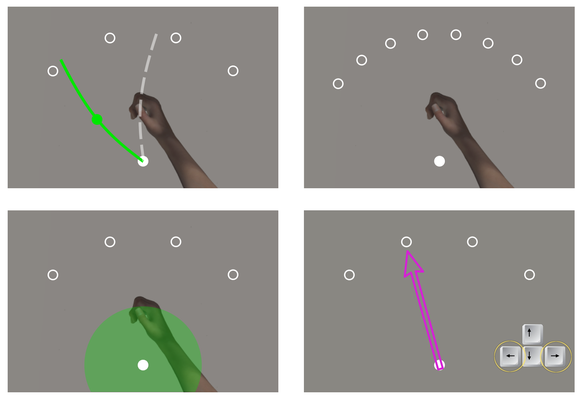
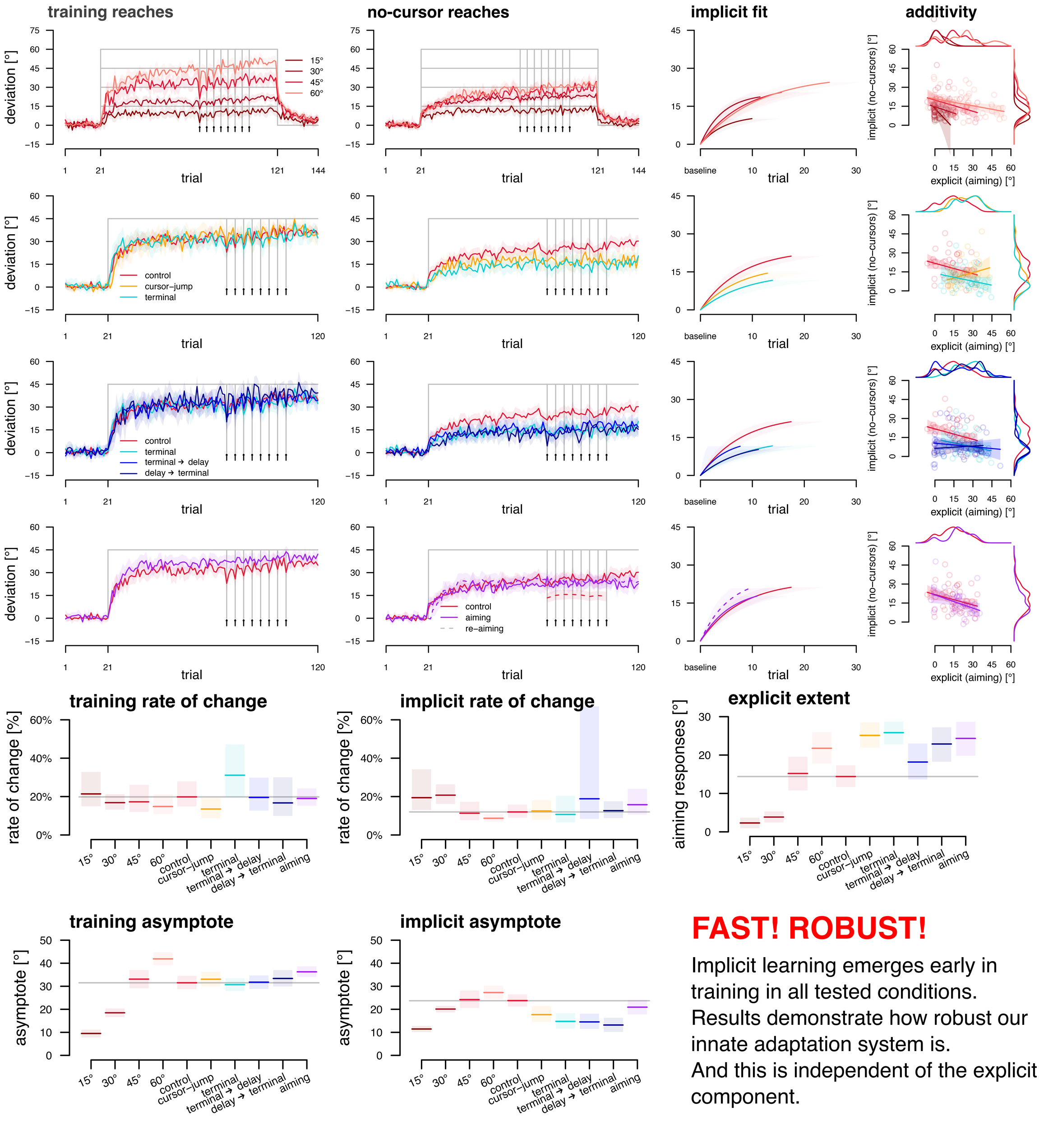
Implicit Adaptation Is Fast and Independent from Explicit Adaptation

Denise Y. P. Henriques, Sebastian D'Amario, Bernard Marius 't Hart

Aim: To investigate the time-course of implicit learning, we examined the effects of diverse rotation magnitudes, feedback types, feedback timing delays, and the role of continuous aiming on implicit learning.

Method: Interlaced no cursor trials. Participants (N=347) did 1 no-cursor trial after each training reach with a visuomotor rotation to directly assess the implicit timecourse with high temporal resolution.





FAST! ROBUST!

Implicit learning emerges early in training in all tested conditions.
Results demonstrate how robust our innate adaptation system is.
And this is independent of the explicit component.