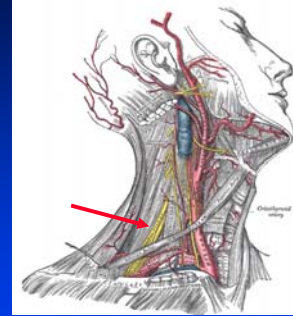


Paper Discussion

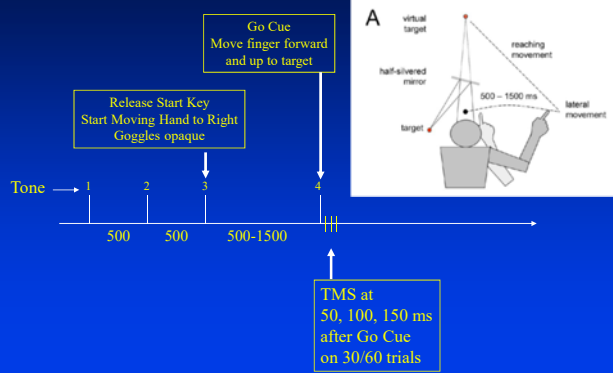
Miall RC, Christensen LO, Cain O, Stanley J (2007)
Disruption of state estimation in the human lateral cerebellum. PLoS Biol 5:e316.

Brachial Plexus



Network of nerves providing cutaneous senses and muscular control of the upper limb

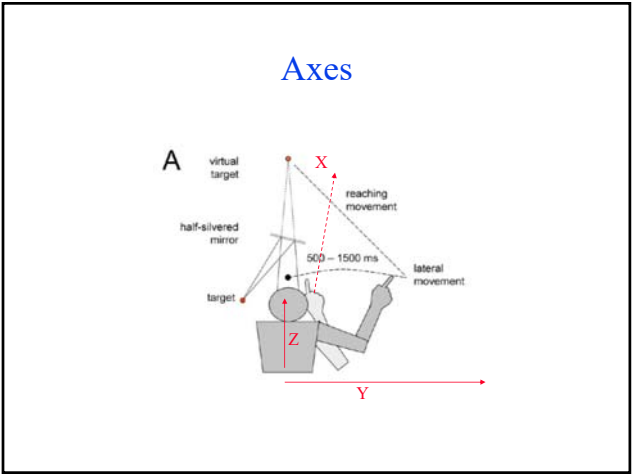
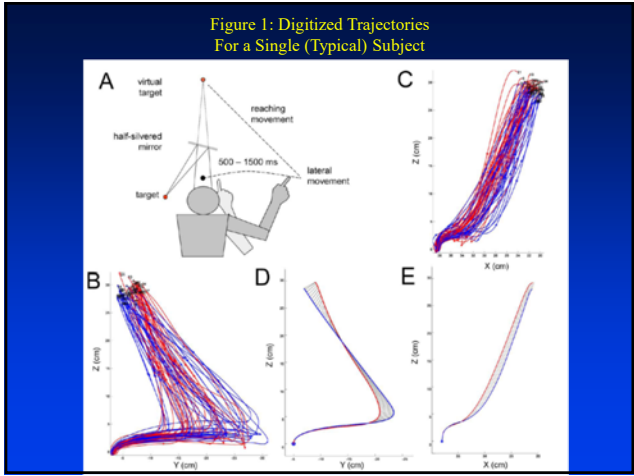
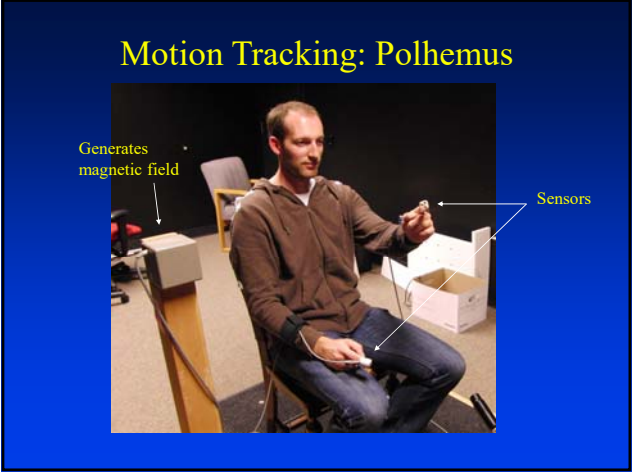
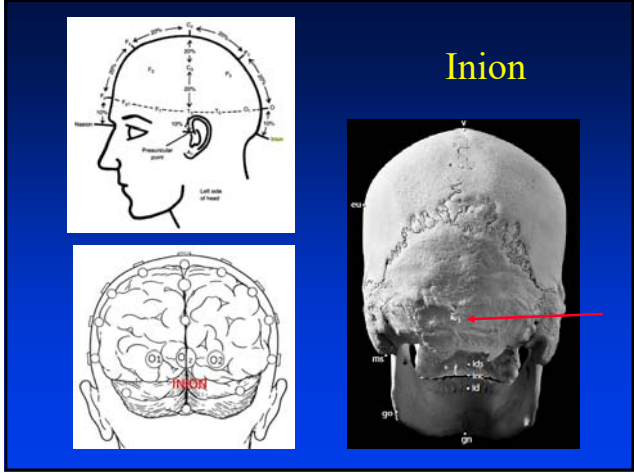
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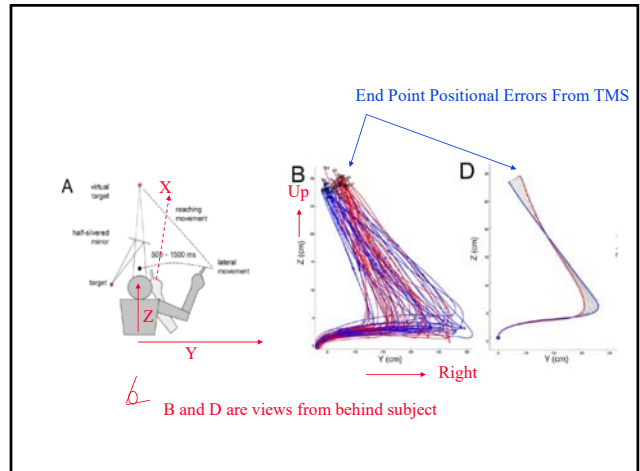
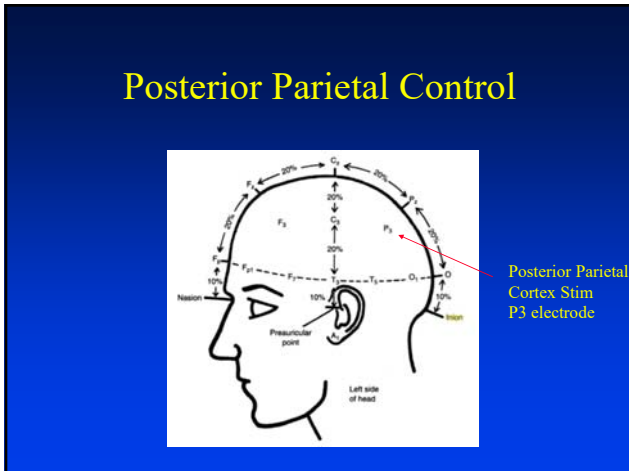
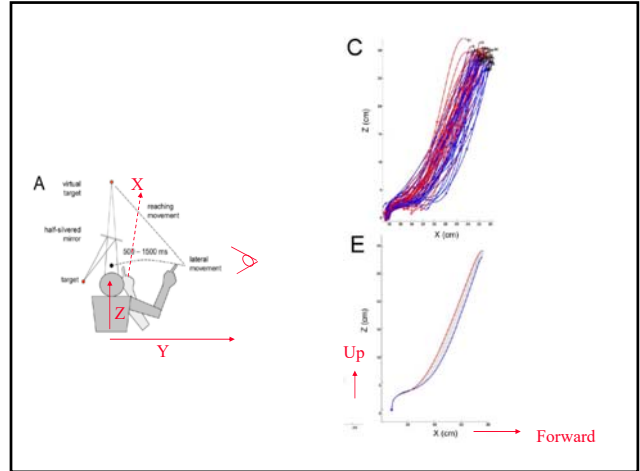
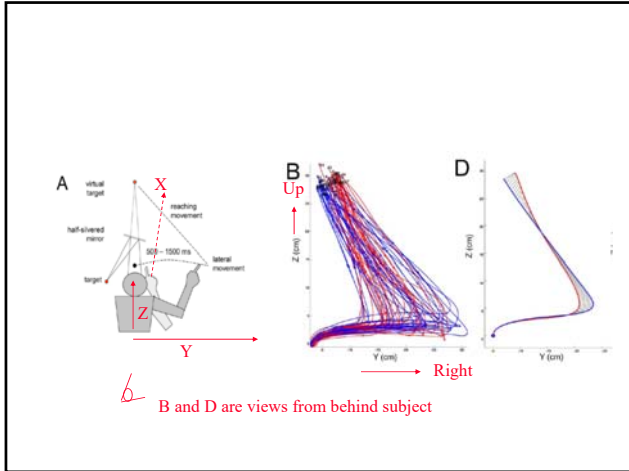


Deeper Stimulation

Double Cone Coil







**Figure 2: End Point Errors
TMS and Control Conditions**

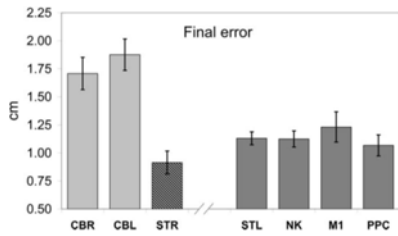


Figure 2. TMS-Induced Difference in Mean End-Point Error
Each bar is the group mean difference for TMS versus non-TMS trials (± 1 SEM). TMS was applied over the cerebellum during rightwards and leftwards movement (CBR, $n = 32$, CBL, $n = 13$) and when stationary (STR, $n = 9$). Control conditions included during startle trials (STL, $n = 11$), stimulation of the ipsilateral neck (NK, $n = 10$), the hand area of contralateral primary motor cortex (M1, $n = 20$), and the contralateral posterior parietal cortex (PPC, $n = 12$).

Figure 3: Trajectories Averaged over All Subjects

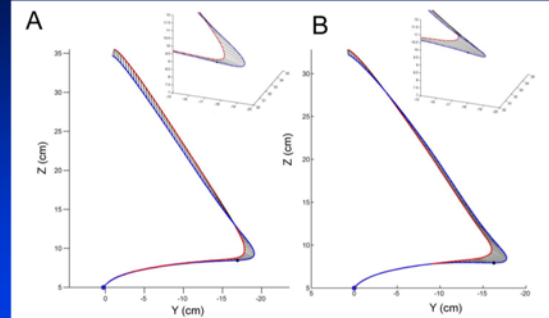


Figure 3. Group Mean Trajectories
Group mean trajectories (A) for TMS trials (red) and non-TMS trials (blue) applied over the cerebellum ($n = 12$). (B) Results from startle TMS or auditory trials, without cerebellar disruption ($n = 11$). In both panels, the curved path followed from bottom left to right is during the pre-cue period. Shortly after the go cue and TMS, a rapid reach-to-target towards the upper left target position is made. The 3-D inset figures show an expanded view of the reach-to-target initiation. Black dots mark the position on the non-TMS mean trajectory (blue line) from which a similar angular deviation between start and maximum velocity would be found as seen in the TMS trials.
doi:10.1371/journal.pbio.0050116.g003

**Figure 2: End Point Errors
TMS and Control Conditions**

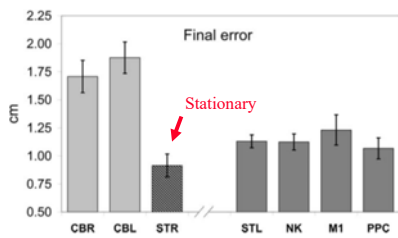
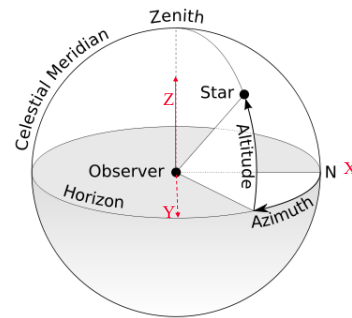
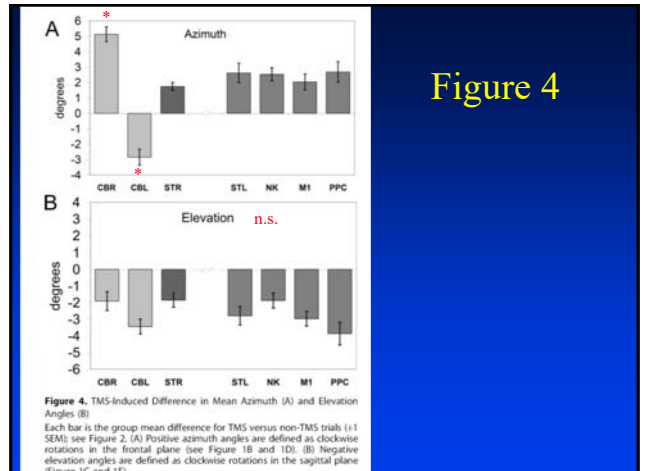
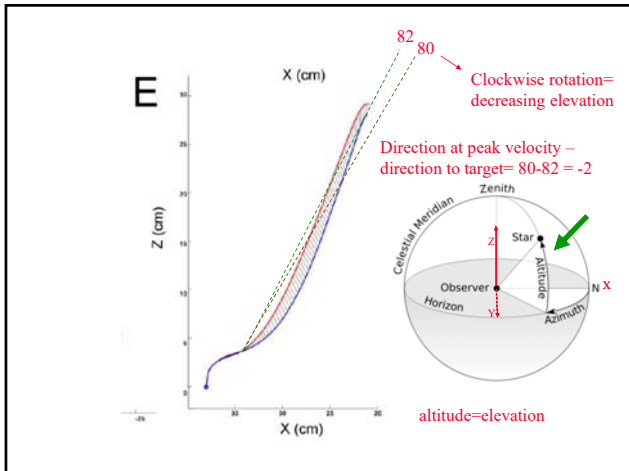
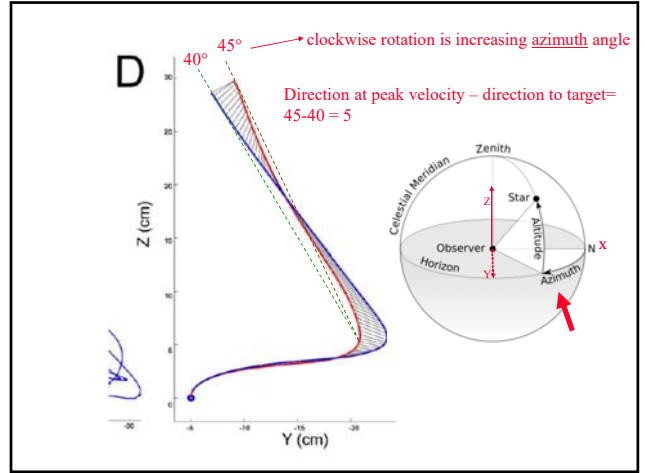
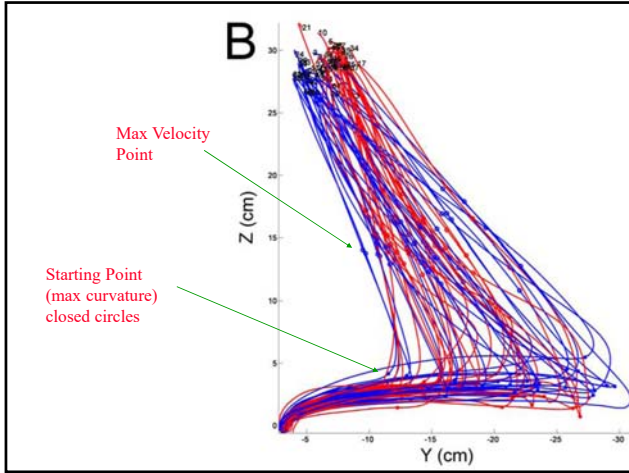
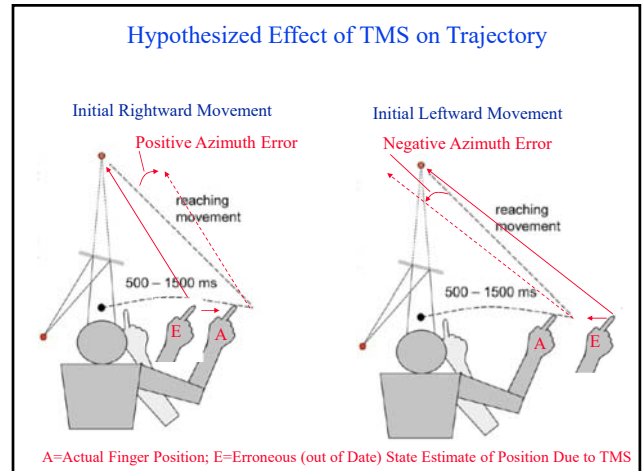
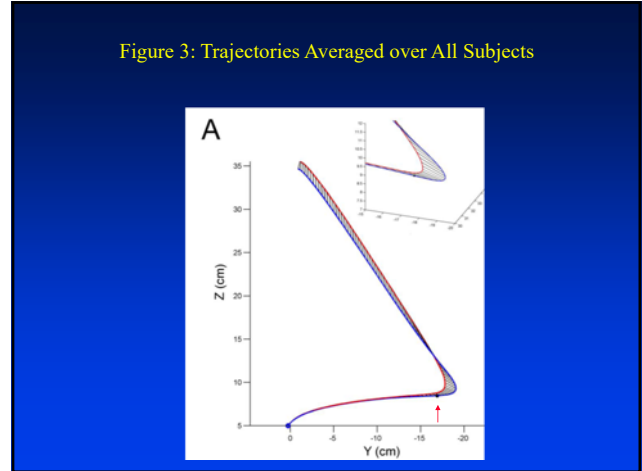
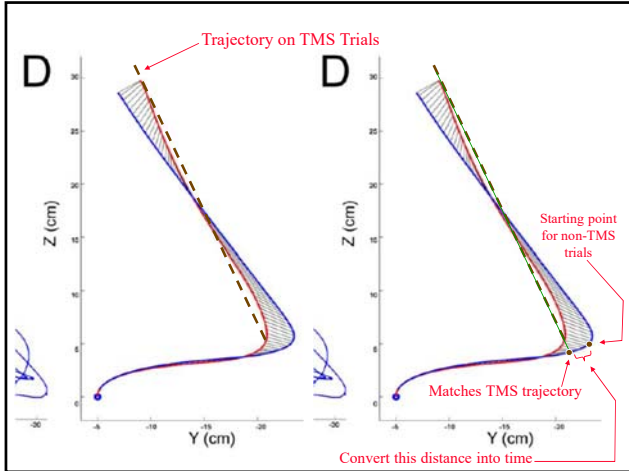


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Azimuth and Elevation (Altitude)







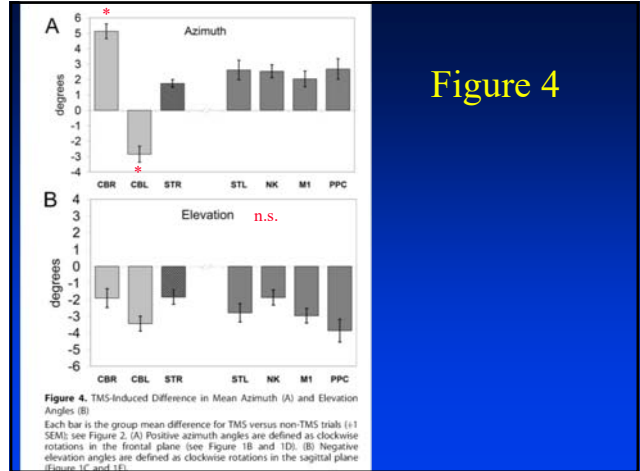
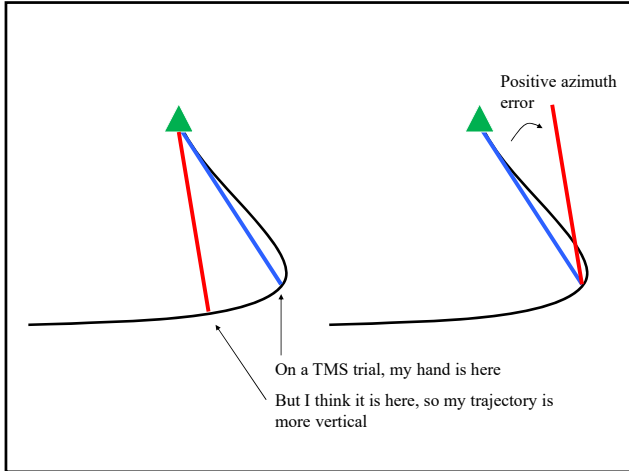


Figure 4

