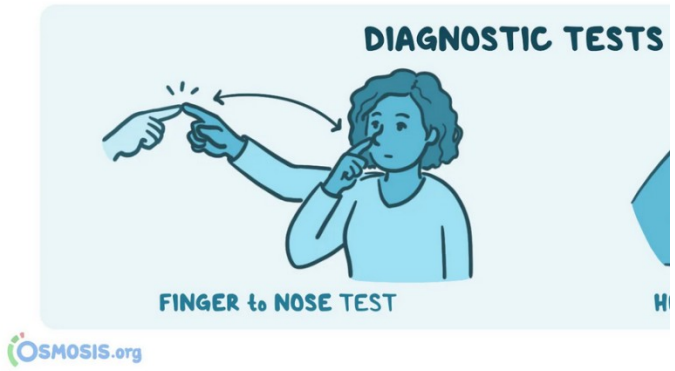
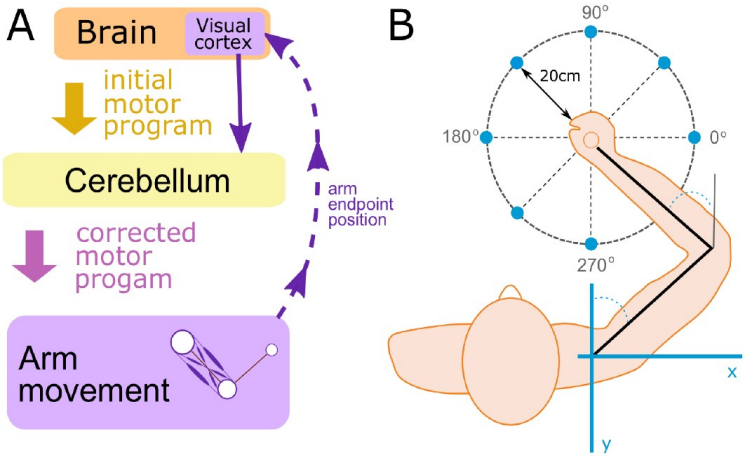
Tricking your cerebellum

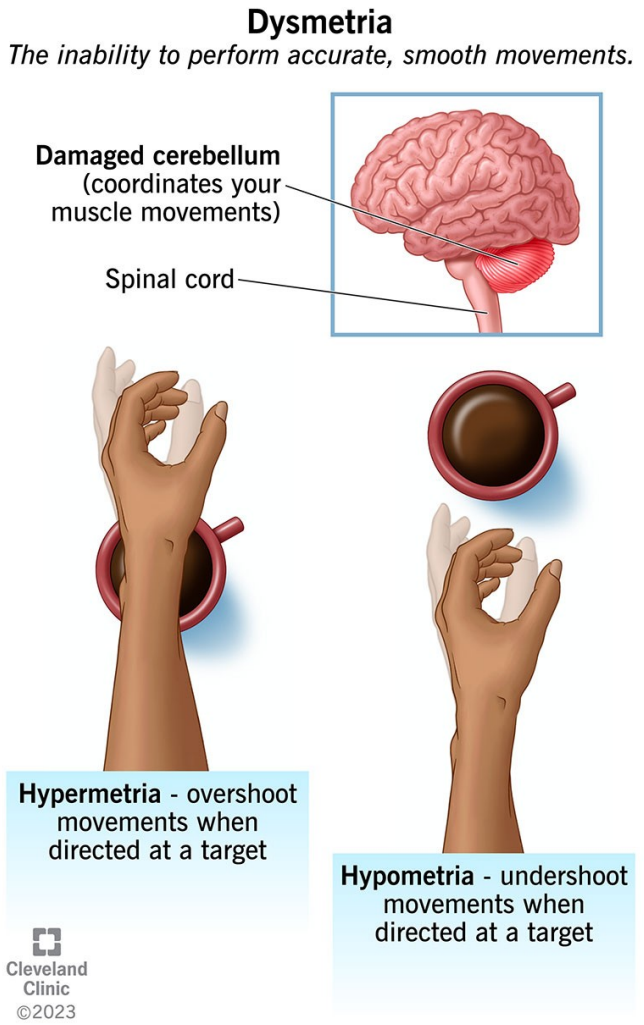
Exercise 4 – Motor Noise

Motivation motor noise



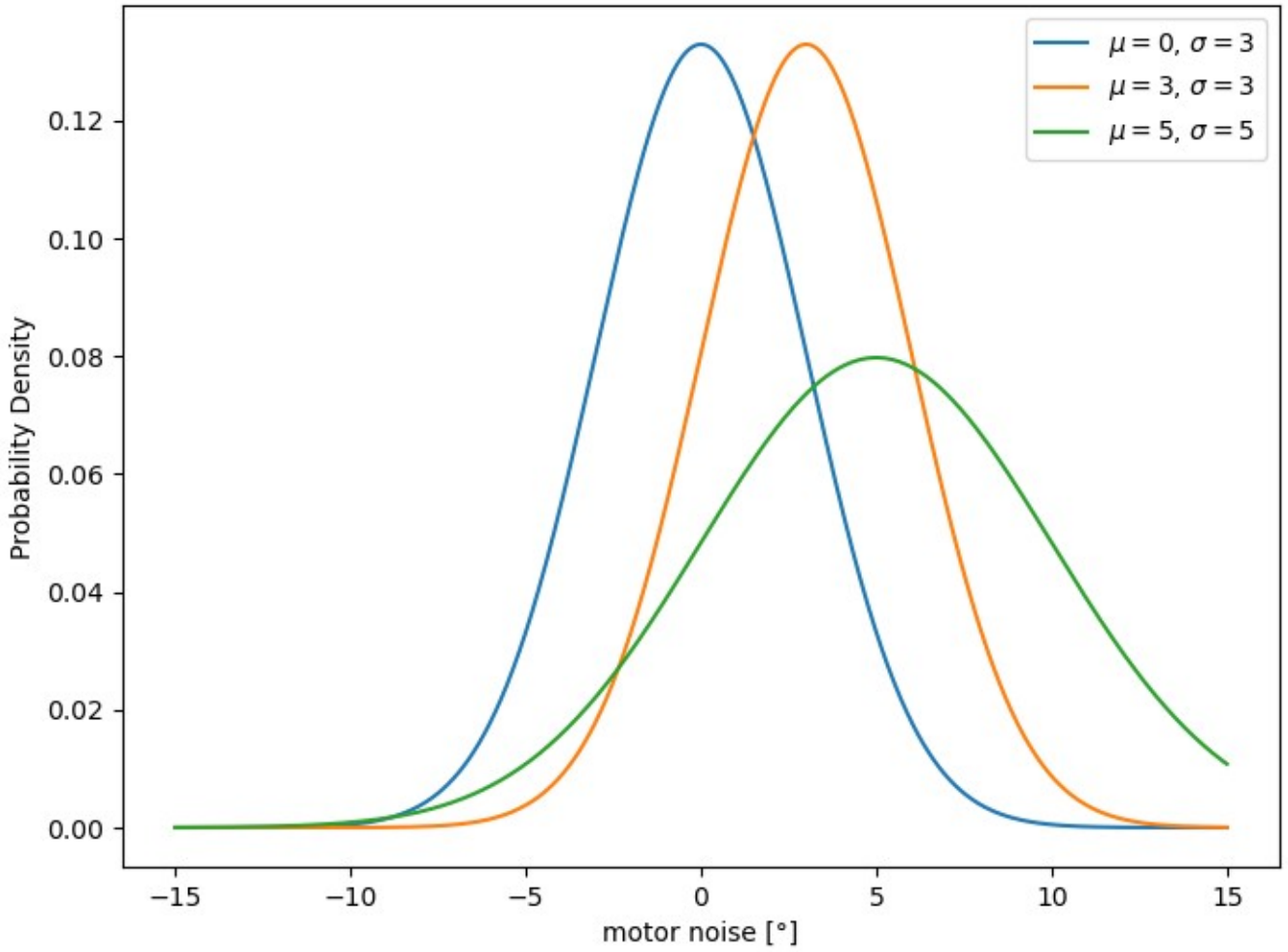


[Todorov et al., 2019]



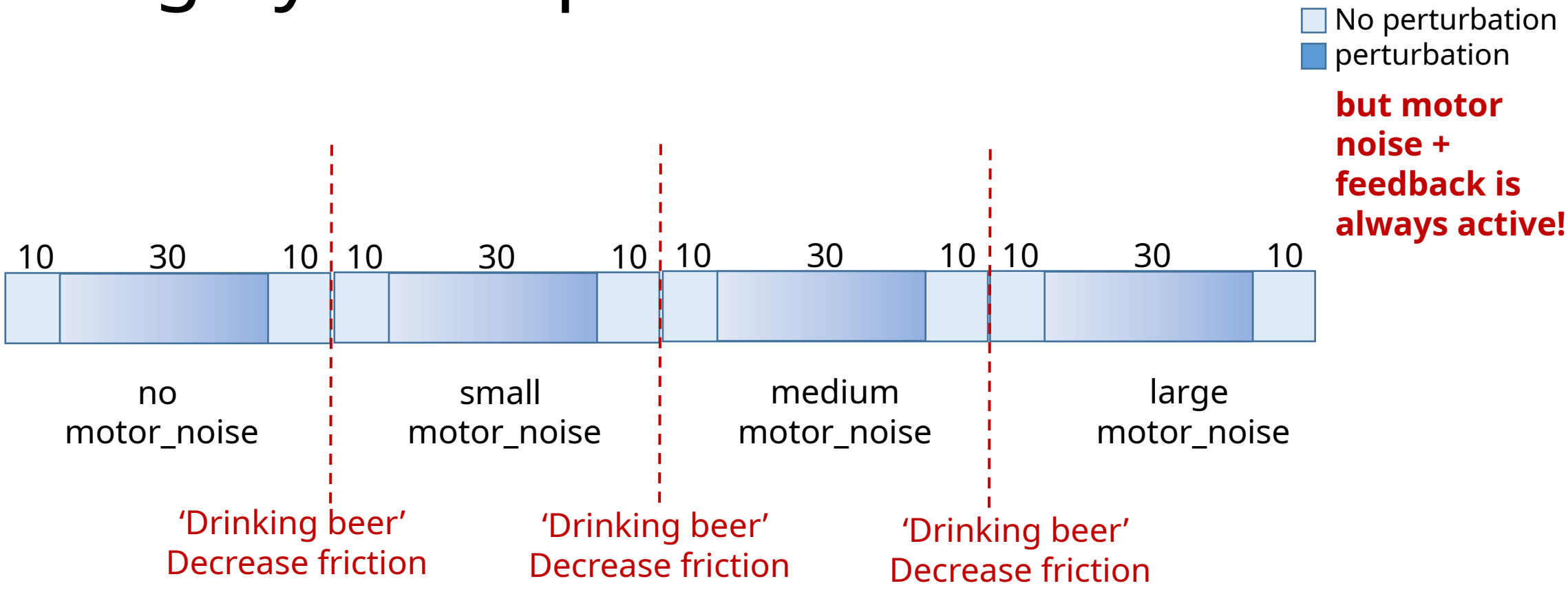
Simulating cerebellar ataxia by inducing motor noise to our subject!

Implementation of motor noise



Choose your own values!

Design your experiment!



Group A: ‘endpos‘ feedback + sudden perturbation

Group B: ‘rl‘ feedback + gradual perturbation

Exercise 4

- TASK 1: Implementation of motor noise
  - **Implement motor noise** as additional perturbation
  - **Display** the text 'Drinking beer' and light up the yellow in the beer pint after the motor noise has been increased.

    (and/or increase the volume of bavarian music after drinking beer :))
  - **Design** your own experiment to test effect of motor noise
- TASK 2: Analysis of motor noise on unbiased subjects
  - **Record** the subject performing your own experiment [A or B]
  - **Visualize** the effect of increasing motor noise on subject‘s performance
- TASK 3: Discussion of your results
  - Is feedback still helpful even if motor noise is present?
  - How large can the motor noise be until learning no longer takes place?