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剛性フィードバックでの運動のトランスファーと向上

§ 1. 研究成果の概要

In FY2019, the project examined the grasp force measure of movement precision, and validated its correspondence with the stiffness of the arm. The goal was to identify a passive measure of movement precision (one that requires no motor or robotic interface) to measure a subject's control of how precisely they want their movement to be. The power grasp force was found to be linearly and positively related to the magnitude of the arm's endpoint stiffness. In a second publication, the project also demonstrated the grasp force measure in an actual reaching experiment where movement precision had to be adapted to successfully complete the task.

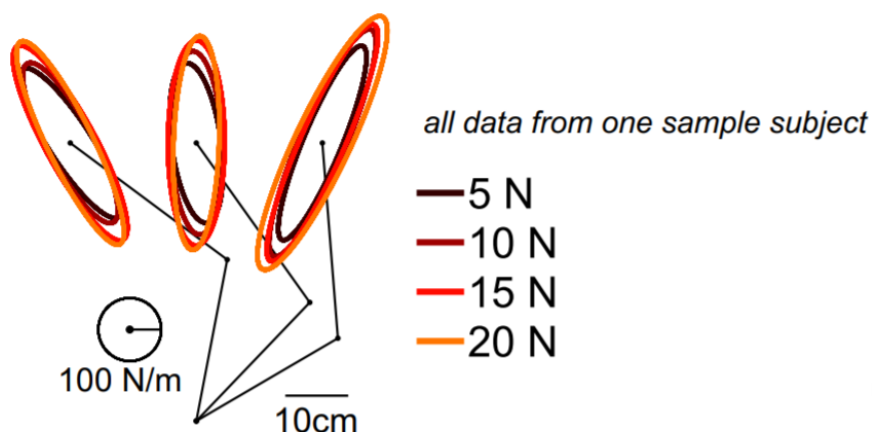


Figure 1: Increase in grasp force was linearly related to the magnitude of the endpoint stiffness of the arm.