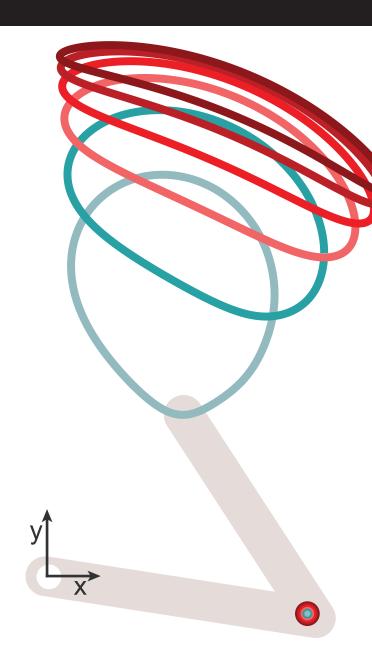
VISUAL PERCEPTION OF JOINT STIFFNESS

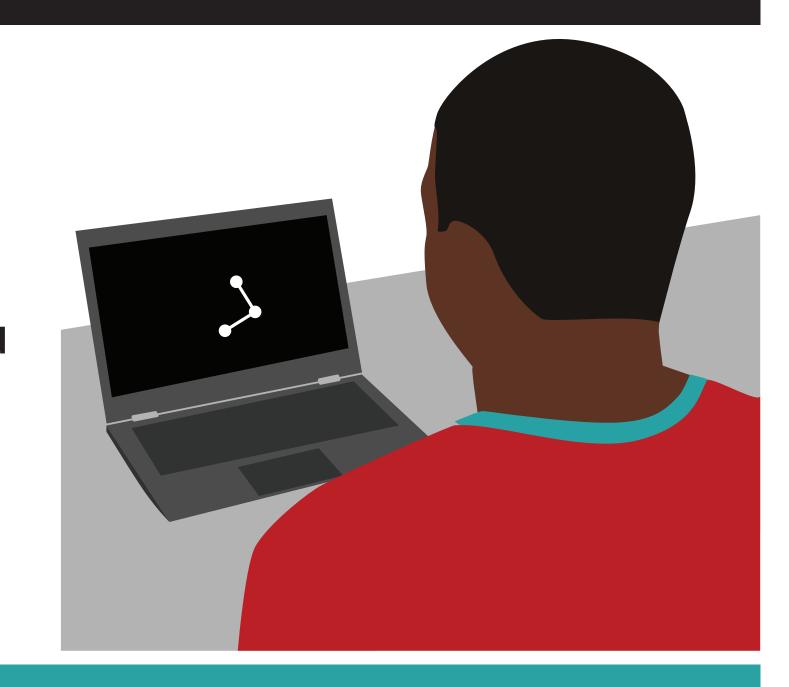
Human action and perception are tightly coupled.







Stiffness affects motion in human motor behaviors, and humans can perceive stiffness from visually observing motion.



WHAT MOTION CUES ARE USED TO ESTIMATE STIFFNESS?

is temporal information needed?

E = 0Nm/radE = 20Nm/radE = 30Nm/rad E = 40Nm/rad E = 50Nm/radE = 10Nm/radlog Tan Vel (m/s) experiment -1.6 -1.6 -1.6 -1.6 -1.8 experiment 2 log Tan Vel (m/s) experiment 3 log Tan Vel (m/s) 0 log ROC (m) log ROC (m)

no, path information is sufficient

Three new stiffness visual perception experiments with manipulated velocity profiles were conducted.

Manipulation of the velocity profiles did not affect subjects' ability to estimate stiffness.

