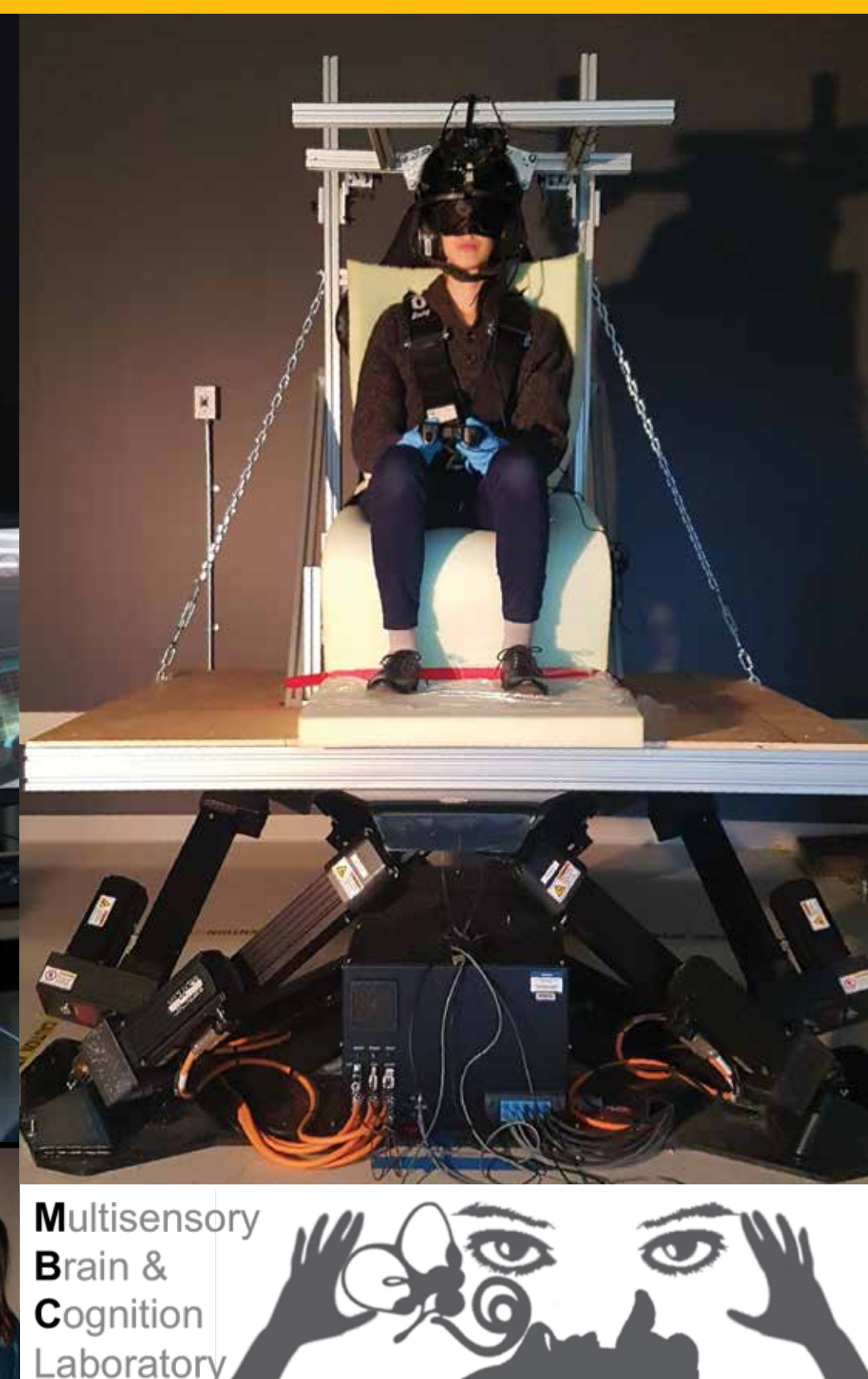# Predicting Cybersickness in Virtual Reality (VR)

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Project type: Postdoctoral Research

The paper **"Estimating the sensorimotor components of cybersickness"**, published in the Journal of Neurophysiology, presents the findings from our study that measured participant responses to standard neurophysiology tests in relation to later cybersickness in VR. We measured balance control, vection responses, and vestibular sensitivity: we were looking for how well participants maintained balance, how their bodies moved in response to visual stimulation, and how prone they were to dizziness.

Our study found a significant correlation between participant sway patterns during vection stimuli and later motion sickness. Vection stimulation refers to showing participants visual motion cues and measuring whether or not they feel their own body moving as well. We saw that when participants swayed more during vection stimulation, they were more likely to report feeling motion sick during VR. The more we understand about this correlation between sensitivity to vection stimuli and cybersickness, the more we will be able to develop strategies for overcoming VR motion sickness.

Interesting fact: Knowing that vection sensitivity is a strong predictor for VR motion sickness means that researchers now have a way of predicting motion sickness without inducing nausea in participants.

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