

# THE PRIMING PROJECT

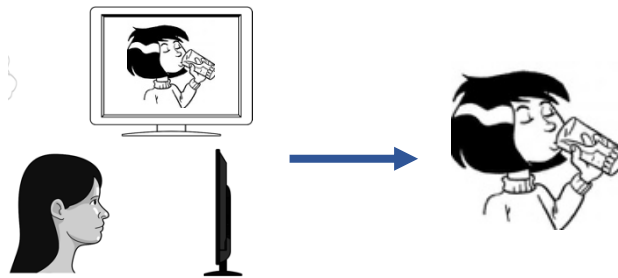
## WHAT IS PRIMING?

“Priming” is a way of introducing information to your brain in such a way that it changes how you react to information in the future.

## WHAT WE KNOW:

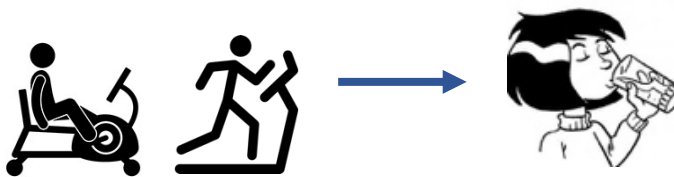
**Cognitive Priming:** Watching a video of someone else doing an activity before practicing it yourself. This can improve your ability to use the arm affected by your stroke.<sup>1,2</sup>

Examples of videos include: drinking from a glass, eating an apple, walking, or combing their hair.



**Aerobic Priming:** Moving your body to get your heart rate up before practicing an activity yourself. This may improve your ability to re-learn an activity after a stroke.<sup>3,4</sup>

Examples of exercises include: fast walking or fast biking



## FOR EXAMPLE:

Looking at pictures of all **blue** toys increases the chance you notice **blueberries** in a fruit basket.



cassidylab@unc.edu



919-966-8404

## THIS STUDY:

*We want to know if we can “turn on” the brain so that learning is easier or faster after a stroke.*

*This will help you to get the most out of each therapy session.*

*We found that walking fast for a short amount of time changed the way important areas of your brain talk to each other.*

## Bibliography

1. Cuenca-Martínez F, Suso-Martí L, Grande-Alonso M, Paris-Aleman A, La Touche R. Combining motor imagery with action observation training does not lead to a greater autonomic nervous system response than motor imagery alone during simple and functional movements: a randomized controlled trial. *PeerJ* 2018;6:e5142. doi:10.7717/peerj.5142.
2. Bang D-H, Shin W-S, Kim S-Y, Choi J-D. The effects of action observational training on walking ability in chronic stroke patients: a double-blind randomized controlled trial. *Clin. Rehabil.* 2013;27(12):1118-1125. doi:10.1177/0269215513501528.
3. Li X, Charalambous CC, Reisman DS, Morton SM. A short bout of high-intensity exercise alters ipsilesional motor cortical excitability post-stroke. *Top Stroke Rehabil* 2019;26(6):405-411. doi:10.1080/10749357.2019.1623458.
4. Statton MA, Encarnacion M, Celnik P, Bastian AJ. A single bout of moderate aerobic exercise improves motor skill acquisition. *PLoS One* 2015;10(10):e0141393. doi:10.1371/journal.pone.0141393.