

[Psychol Sci.](#) 2010 Jul;21(7):1000-5. doi: 10.1177/0956797610371962. Epub 2010 May 18.

# Rapid assimilation of external objects into the body schema.

[Carlson TA](#), [Alvarez G](#), [Wu DA](#), [Verstraten FA](#).

## Source

Department of Psychology, 1145A Biology/Psychology Building, University of Maryland, College Park, MD 20740, USA. [tcarlson@psyc.umd.edu](mailto:tcarlson@psyc.umd.edu)

## Abstract

When a warrior picks up a sword for battle, do sword and soldier become one? The notion of an extended sense of the body has been the topic of philosophical discussion for more than a century and more recently has been subjected to empirical tests by psychologists and neuroscientists. We used a unique afterimage paradigm to test if, and under what conditions, objects are integrated into an extended body sense. Our experiments provide empirical support for the notion that objects can be integrated into an extended sense of the body. Our findings further indicate that this extended body sense is highly plastic, quickly assimilating objects that are in physical contact with the observer. Finally, we show that this extended body sense is limited to first-order extensions, thus constraining how far one can extend oneself into the environment.

PMID:

20483818

[PubMed - indexed for MEDLINE]