

Author's Accepted Manuscript

Knowledge Supports Memory Retrieval through Familiarity, Not Recollection

Wei-Chun Wang, Nadia M. Brashier, Erik A. Wing, Elizabeth J. Marsh, Roberto Cabeza



PII: S0028-3932(18)30019-8
DOI: <https://doi.org/10.1016/j.neuropsychologia.2018.01.019>
Reference: NSY6648

To appear in: *Neuropsychologia*

Received date: 31 August 2017
Revised date: 18 December 2017
Accepted date: 15 January 2018

Cite this article as: Wei-Chun Wang, Nadia M. Brashier, Erik A. Wing, Elizabeth J. Marsh and Roberto Cabeza, Knowledge Supports Memory Retrieval through Familiarity, Not Recollection, *Neuropsychologia*, <https://doi.org/10.1016/j.neuropsychologia.2018.01.019>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Knowledge Supports Memory Retrieval through Familiarity, Not Recollection

Wei-Chun Wang, Nadia M. Brashier, Erik A. Wing, Elizabeth J. Marsh, & Roberto Cabeza

Duke University

Author Note

Wei-Chun Wang, Center for Cognitive Neuroscience, Duke University; Nadia M. Brashier, Center for Cognitive Neuroscience, Duke University; Roberto Cabeza, Center for Cognitive Neuroscience, Duke University; Elizabeth J. Marsh, Department of Psychology & Neuroscience, Duke University.

Correspondence concerning this article should be addressed to Wei-Chun Wang, Center for Cognitive Neuroscience, Duke University, Durham, NC, 27708. E-mail: ww83@duke.edu

Conflicts of interest: none

Abstract

Semantic memory, or general knowledge of the world, guides learning and supports the formation and retrieval of new episodic memories. Behavioral evidence suggests that this knowledge effect is supported by recollection—a more controlled form of memory retrieval generally accompanied by contextual details—to a greater degree than familiarity—a more automatic form of memory retrieval generally absent of contextual details. In the current study, we used functional magnetic resonance imaging (fMRI) to investigate the role that regions associated with recollection and familiarity play in retrieving recent instances of known (e.g., *The Summer Olympic Games are held four years apart*) and unknown (e.g., *A flaky deposit found in port bottles is beeswing*) statements. Our results revealed a surprising pattern: Episodic retrieval of known statements recruited regions associated with familiarity, but not recollection. Instead, retrieval of unknown statements recruited regions associated with recollection. These

Download English Version:

<https://daneshyari.com/en/article/7317662>

Download Persian Version:

<https://daneshyari.com/article/7317662>

[Daneshyari.com](https://daneshyari.com)