

School of Behavioral and Brain Sciences

Theta and Alpha Alterations in Amnestic Mild Cognitive Impairment in Semantic Go/NoGo Tasks—Supplement

UT Dallas Author(s):

Hsueh-Sheng Chiang
Julie M. Schneider
Mandy J. Maguire
John Hart, Jr.

Rights:

CC BY 4.0 (Attribution)
©2017 The Authors

Citation:

Nguyen, Lydia T., Raksha A. Mudar, Hsueh-Sheng Chiang, Julie M. Schneider, et al. 2017. "Theta and alpha alterations in amnestic mild cognitive impairment in semantic go/nogo tasks." 9, doi:10.3389/fnagi.2017.00160

This document is being made freely available by the Eugene McDermott Library of the University of Texas at Dallas with permission of the copyright owner. All rights are reserved under United States copyright law unless specified otherwise.

Supplementary Material

Theta and Alpha Alterations in Amnestic Mild Cognitive Impairment in Semantic Go/NoGo Tasks

Lydia T. Nguyen, Raksha A. Mudar*, Hsueh-Sheng Chiang, Julie M. Schneider, Mandy J. Maguire, Michael A. Kraut, John Hart Jr.

*Correspondence: Raksha A. Mudar, raksha@illinois.edu

1 Individual alpha frequency (IAF)

For each participant, an average of all the individual electrodes was used to create global power spectra for each task (single-car/object-animal) and condition (Go/NoGo). IAF was determined by identifying the frequency that had peak power within the extended alpha range (7-14 Hz) in the global spectrum [1]. IAF was calculated separately for each task and condition, resulting in four IAF values (single-car Go, single-car NoGo, object-animal Go, and object-animal NoGo). Group means and *p*-values for the IAF values are reported in Table 1. There were no significant group differences for IAF.

Table 1. Group means for individual alpha frequency (Hz). Each cell represents group mean (standard deviation).

	Controls	aMCI	<i>p</i> -value
Single-car Go	10.03 (2.72)	9.90 (2.96)	.877
Single-car NoGo	9.14 (2.53)	8.48 (1.99)	.337
Object-animal Go	9.68 (2.37)	9.37 (2.95)	.702
Object-animal NoGo	8.92 (2.24)	8.97 (2.50)	.951

Reference

1. Klimesch, W., *EEG alpha and theta oscillations reflect cognitive and memory performance: a review and analysis*. Brain Res Rev, 1999. **29**(2-3): p. 169-95.