www.sciencemag.org/cgi/content/full/326/5951/445/DC1

Supporting Online Material for

Sequential Processing of Lexical, Grammatical, and Phonological Information within Broca's Area

Ned T. Sahin,* Steven Pinker, Sydney S. Cash, Donald Schomer, Eric Halgren

*To whom correspondence should be addressed. E-mail: sahin@post.harvard.edu

Published 16 October 2009, *Science*

Supporting Online Material – Sahin,

The Broca's area contacts were available for the present research because they lay on the trajectory of probes that targeted more medial regions (anterior cingulate or orbitofrontal cortex), which prior non-invasive clinical monitoring revealed were among the areas where seizures might have arisen. In addition, the contacts in or near Broca's area helped the clinical team determine how far the

trials (the Fixation condition). If the peak differed significantly from the baseline activity (tested at $p<.001$, corrected for multiple comparisons), the channel was included for further analysis. Bonferroni correction was based on the total number of channels in Broca's region across patients (45). These criteria resulted in 26 of these channels being designated as active.

Visual inspection revealed that most Broca's area channels recorded three iERP components, falling in three discrete time windows (see Fig. 1, Fig. 3, Fig. S1, Fig. S3, Fig. S4, Fig. S5). Within each task-active channel, components meeting a test for significance at

Correction for multiple comparisons was carried out using the False Discovery Rate (FDR) technique (*S9*). A global region-of-interest (R

Supporting Figures

Contact	*X* Coordinate (Left to Right)	*Y* Coordinate (Posterior to Anterior)	*Z* Coordinate (Ventral to Dorsal)	Anatomical Location (Direct Localization from