

# LAD Conferences

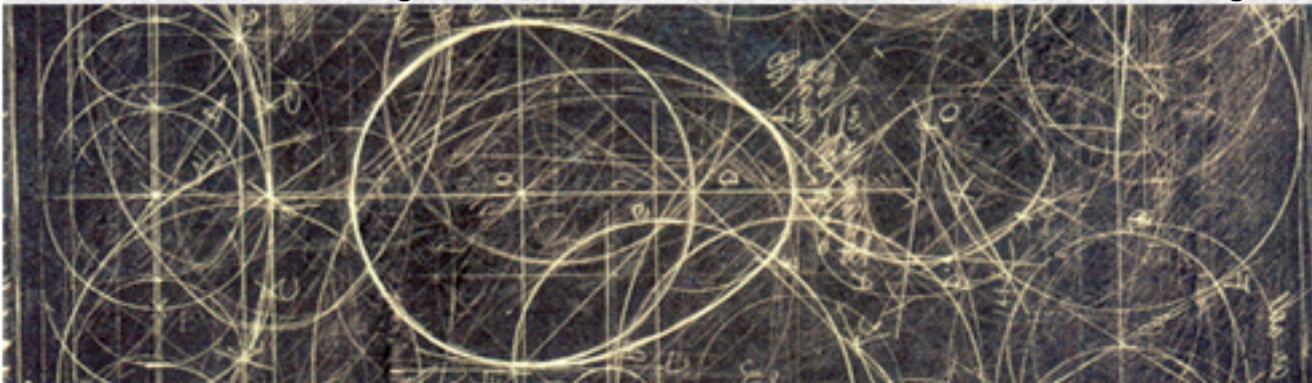
Friday, October 3, 2014, 10AM  
DS-2505, 320 Ste-Catherine E.

L a b o r a t o i r e d e r e c h e r c h e s u r l e s a s y m é t r i e s d ' i n t e r f a c e s

**Robert Fiorentino, University of Kansas**

## Identifying the pieces, processes, and brain bases of complex word recognition

Alternative accounts of the representation and processing of complex words such as *government*, *teacup*, or *walked* make fundamentally different claims regarding what the basic units of lexical knowledge are, and regarding the nature of the operations that these basic units undergo. In this talk, I will present findings from a set of studies utilizing psycholinguistic methods and the brain imaging techniques electroencephalography (EEG) and magnetoencephalography (MEG) to probe the nature and neural dynamics of complex word recognition, taking the processing of compound words like *teacup* or *honeymoon* as a primary test case. The findings from these studies suggest that complex word recognition makes recourse to representational primitives below the word level (morpheme representations) and combinatorial processes operating on these representational primitives in the general case. These findings together highlight the potential of cross-method, cognitive neuroscience research on complex word recognition to inform our understanding of the nature and neural instantiation of lexical knowledge.



*Geometria dell'ovale incisione su rame stampa in negativo* © 2007 - Patrizio Di Sciullo - Tutti i diritti riservati.

**Robert Fiorentino** received his Ph.D. in Linguistics from the University of Maryland in 2006. He joined the faculty in the Linguistics Department at the University of Kansas in Fall, 2006, where he is currently Associate Professor and Director of the Neurolinguistics and Language Processing Laboratory. Dr. Fiorentino's research program involves investigation of the basic nature of linguistic representations and operations, which he examines using a range of psycholinguistic and neurolinguistic techniques. His research spans the domains of word recognition, morphosyntax, and semantics/pragmatics, and includes investigation of a range of languages and populations, with a primary focus on native speakers and adult second language learners. Dr. Fiorentino's research has been funded by the *National Institutes of Health* and the *National Science Foundation*, and his work has appeared in a number of journals in the fields of linguistics, language acquisition and neuroscience.

### Some references:

- Fiorentino, R., Bost, J., Abel, A.D., and Zuccarelli, J. (2012). The recruitment of knowledge regarding plurality and compound formation during language comprehension. *The Mental Lexicon*, 7, 34-57.
- Fiorentino, R. and Fund-Reznicek, E. (2009). Masked morphological priming of compound constituents. *The Mental Lexicon*, 4, 159-193.
- Fiorentino, R., Naito-Billen, Y., Bost, J., and Fund-Reznicek, E. (2014). Electrophysiological evidence for the morpheme-based combinatoric processing of English compounds. *Cognitive Neuropsychology*, 31, 123-146.
- Fiorentino, R. and Poeppel, D. (2007). Compound words and structure in the lexicon. *Language and Cognitive Processes*, 12, 953-1000.

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