

Laura E. Gwilliams

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Research Positions

Aug 2013 - Aug 2015	<i>Research Assistant, New York University Abu Dhabi</i> <i>Supervisors: Dr. Alec Marantz and Dr. Liina Pytkänen</i>
July 2012 - Jan 2014	<i>Research Assistant, Cardiff University</i> <i>Supervisor: Dr. Lise Fontaine</i>
Sept 2011 - June 2012	<i>Graduate Research Team, Cardiff University</i>

Education

Ph.D 2015 - Present

Cognition and Perception

New York University, USA

Supervisors: Dr. Alec Marantz & Dr. David Poeppel

M.Sc. 2012 - 2013

Cognitive Neuroscience of Language

Basque Center on Cognition, Brain and Language (BCBL), Spain

Grade: *Excellent*

Dissertation: *Sensitivity to morphological composition*

Supervisors: Dr. Arthur Samuel & Dr. Philip Monahan

B.A. 2009 - 2012

English Language, with specialisation in theoretical linguistics

Cardiff University, UK

Grade: *1st Class with honours*

Dissertation: *Ambiguity of process-type selection in systemic functional linguistics*

Supervisor: Dr. Lise Fontaine

Awards and Scholarships

Henry M. MacCracken Fellowship, New York University, 2015-2020

Description: Full funding of PhD tuition and maintenance

Dell Hymes Commendation for Excellent Academic Achievement, Cardiff University, 2012

Description: Presented to the top graduating student within the department

Academic Service

Ad hoc reviewer for *Psychonomic Bulletin and Review*

Software and Programming Skills

Research Methodologies: MEG, EEG, Behavioural, Eye-Tracking, fMRI (limited experience)

Data Analysis: MNE-Python, BESA, MATLAB (Fieldtrip), R, MEG160

Auditory Packages: Praat, Audacity

Experiment Presentation: MATLAB (Psychtoolbox), Presentation, DMDX

Programming: Python, Perl, Unix (bash, tcsh), HTML

Publications

Brodbeck, C., **Gwilliams, L.** & Pykkänen, L. (2015). EEG can track the time course of reference resolution in small visual worlds. *Frontiers in Psychology*. [\[PDF\]](#).

Gwilliams, L. & Marantz, A. (2015). Tracking non-linear prediction in a linear speech stream: Influence of morphological structure on spoken word recognition. *Brain and Language*. [\[PDF\]](#).

Gwilliams, L., Monahan, P., & Samuel, A. (2015). Sensitivity to morphological composition: Evidence from grammatical and lexical decision tasks. *Journal of Experimental Psychology: Language, Memory and Cognition*. [\[PDF\]](#).

Gwilliams, L. & Fontaine, L. (2015). Indeterminacy in process type classification. *Functions of Language*. [\[PDF\]](#).

Politzer-Ahles, S., & **Gwilliams, L.** (2015). Involvement of prefrontal cortex in scalar implicatures: Evidence from magnetoencephalography. *Language and Cognitive Neuroscience*. [\[PDF\]](#)

Manuscripts

Gwilliams, L., Lewis, G. & Marantz, A. (Submitted). Functionally localising letter-specific responses in time, space and current polarity using magnetoencephalography.

Linzen, T., Gaston, P., **Gwilliams, L.** & Marantz, A. (In preparation). Competition and prediction in the neural processing of morphologically complex spoken words.

Posters and Presentations

Gwilliams, L. & Marantz, A. (2015, October). *Representations of the stems you can't see: A MEG study of morphological decomposition*. Poster presented at the Society for the Neurobiology of Language Conference, Chicago, USA

Stockall, L., **Gwilliams, L.**, Manouilidou, C. & Marantz, A. (2015, October). *Access to lexical category and verb argument structure in the early stages of processing morphologically complex words: MEG investigations of prefixation*. Poster presented at the Society for the Neurobiology of Language Conference, Chicago, USA

Gaston, P., **Gwilliams, L.** & Marantz, A. (2015, October). *The time-course of cohort restriction in syntactic context: MEG evidence for a single auditory word-form*. Poster presented at the Society for the Neurobiology of Language Conference, Chicago, USA

Oseki, Y., **Gwilliams, L.**, Blanco-Elorrieta, E., Gaston, P., Pylkkanen, L. & Marantz, A. (2015, October). *Neural Dynamics of Morphological and Phrasal Composition*. Poster presented at the Society for the Neurobiology of Language Conference, Chicago, USA

Brodbeck, C., **Gwilliams, L.** & Pylkkanen, L. (2015, October). *EEG can track the time course of successful reference resolution in small visual worlds*. Poster presented at the Society for the Neurobiology of Language Conference, Chicago, USA

Gwilliams, L. & Marantz, A. (2015, June). *Abstract representation of the root morpheme: A magnetoencephalography study of spoken Arabic*. Presentation at the 9th Morphological Processing Conference, Potsdam, Germany.

Gwilliams, L. & Marantz, A. (2015, March). *Decomposition of spoken Arabic words into root morphemes during processing: Evidence from magnetoencephalography*. Presentation at the Linguistics in the Gulf 5 Conference, Doha, Qatar

Gwilliams, L. (2015, March). *Letter specific sensitivities in the brain: located in time, space and current direction*. Presentation at the Neuroscience of Language Workshop 2015, Abu Dhabi, UAE

Gwilliams, L., & Marantz, A. (2015, February). *Non-linear processing of a linear speech stream*. Presentation at the NYUAD Annual Research Conference 2015, Abu Dhabi, UAE.

Gwilliams, L., Lewis, G., & Marantz, A. (2014, August). *Revealing the cortical dynamics of letter string perception*. Poster presented at the Society for the Neurobiology of Language Conference, Amsterdam, Netherlands. **[PDF]**.

Linzen, T., Gaston, P., **Gwilliams, L.** & Marantz, A. (2014, August). *Competition and prediction in the auditory processing of morphologically complex words*. Poster presented at the Society for the Neurobiology of Language Conference, Amsterdam, Netherlands. **[PDF]**.

Gwilliams, L. & Fontaine, L. (2014, July). *Ambiguity in process type selection in systemic functional linguistics*. Presentation at the 25th European Systemic Functional Linguistics Conference, Paris, France.

Brodbeck, C., **Gwilliams, L.** & Pykkänen, L. (2014, February). *Reference resolution and prediction in a visual world: MEG evidence from English and Arabic*. Presentation at the NYUAD Annual Research Conference 2014, Abu Dhabi, UAE.

Gwilliams, L., Monahan, P. & Samuel, A. (2013, June). *Why an Avalanche is faster than an Explosion*. Poster presented at The 8th International Morphological Processing Conference, Cambridge, UK. **[PDF]**.

Gwilliams, L., Monahan, P., & Samuel, A. (2013, March). *Decompositional processing of nominalisations*. Poster presented at the Basque Center on Cognition, Brain and Language (BCBL), San Sebastian, Spain.