LingPhil Summer School 2020

Palma de Mallorca

COURSE E: **Syntax processing based on neurophysiological measures**

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In this course, I will review core research on syntactic processing using electrophysiological measures. I will focus on common ERP components observed in typologically dissimilar languages and on the syntactic processing of speakers when they are using their second language. Further, I will describe an innovative experimental paradigm for syntactic production research using ERPs that we have elaborated in our lab.

**Day1: Generalities about Syntax and Electrophysiology**.

Reading: Molinaro, N., Barber, H.A., & Carreiras, M., (2011) Grammatical agreement processing in reading: ERP findings and future directions. *Cortex*, 47, 908-930. doi:10.1016/j.cortex.2011.02.019.

**Day2: Electrophysiology for Syntax production.**

Reading: Costa A., **Strijkers K**., Martin C. & Thierry G. (2009). The time-course of word retrieval revealed by event-related brain potentials during overt speech.  Proceedings of the National Academy of Science, 106, 21442 – 21446.

**Day3: Neurotypology: Syntactic processing of different language types.**

Reading: Erdocia, K.; Laka, I.; Mestres-Missé, A.; & Rodriguez-Fornells, A. (2009). Syntactic complexity and ambiguity resolution in a free Word order language: Behavioral and electrophysiological evidences from Basque. *Brain and Language*, 109, 1-17. https://doi.org/10.1016/j.bandl.2008.12.003

**Day4: ERPs in the study of Bilingualism - I**

Reading: **Steinhauer, K. (2014).** Event-related potentials (ERPs) in second language research: a brief introduction to the technique, a selected review, and an invitation to reconsider critical periods in L2. Applied Linguistics, 35(4), 393-417

**Day 5: ERP in the study of Bilingualism - II**

Reading: Díaz, B.; Erdocia, K.; de Menezes, RF.; Mueller, JL.; Sebastian-Galles, N. & Laka, I. (2016) [Electrophysiological correlates of second-language syntactic processes are related to native and second language distance regardless of age of acquisition](http://journal.frontiersin.org/article/10.3389/fpsyg.2016.00133/full). *Front. Psychol.* **7**:133. doi: 10.3389/fpsyg.2016.00133