Exploring Cross-Varietal Diversity in Online Language Comprehension

in-person course on Tuesday afternoon and Wednesday (all day) by
Alice Blumenthal-Dramé

Short CV: Alice Blumenthal-Dramé is an Associate Professor for English Linguistics at the English Department of the University of Freiburg. She studied English Philology, Slavic Philology, Computational Linguistics and General Linguistics at the University of Manchester (UK), the Lomonosov University of Moscow (Russian Federation), and the University of Freiburg (Germany), where she received her PhD in 2011 and her *Habilitation* in 2019.

Her publications exploit behavioural and functional neuroimaging methods to explore the extent to which statistical generalisations across "big data" (notably, large-scale text corpora and databases derived from such corpora) have the potential to offer realistic insights into language users' cognition. Major motivations behind this research have been: (1) to put to the test the cognitive reality of cognitive linguistic assumptions, and (2) to gain a better understanding of the size and nature of the cognitive building blocks that are utilised in natural language use.

Course description
In the field of psycholinguistics, the notion of "online comprehension" refers to the real-time deployment of mental language representations in response to incrementally incoming (visual or auditory) linguistic input. This course aims to establish the conceptual and methodological foundations for investigating whether native speakers of different varieties of English exhibit differences in their online comprehension styles, preferences or habits. For example, do speakers of certain varieties rely more strongly on prediction than others? Or do the constructions drawn upon look slightly different in terms of size or probabilistic association strength?

Cross-varietal processing differences are to be expected if our experiences have a substantial and relatively direct influence on mental language representations and processing, as proposed by the usage-based framework. However, much of previous psycholinguistic research has predominantly highlighted processing similarities, for several reasons. Firstly, research has often centred on a limited selection of standard languages spoken by young, academically-oriented, monolingual individuals from WEIRD (Western, Educated, Industrialized, Rich, and Democratic) societies, with the implicit assumption that these findings are broadly applicable to humanity (Henrich, Heine & Norenzayan 2010). Secondly, much of psycho- and neurolinguistics has more or less implicitly evolved within the framework of innate universal grammar assumptions, which inherently tends to emphasize commonalities.

Recent research has begun to challenge this viewpoint and has shifted attention towards a wider range of linguistically diverse languages, with the aim of uncovering systematic processing differences linked to linguistic features (Sauppe, Andrews & Norcliffe 2023). The next logical step in this journey is the inclusion of (standard and non-standard) language varieties, which constitutes the core focus of this workshop.

The workshop will be divided into three segments:

First Half Day

- Introduction to foundational concepts (e.g., processing vs. representation, online vs. offline experiments, various experimental paradigms and their strengths and limitations).
- Discussion of epistemological considerations (e.g., criteria for constructing meaningful experimental hypotheses, characteristics of insightful experiments).

Second Half Day

- Exploration of specific challenges and confounding variables in psycholinguistic studies of non-standard varieties (e.g., bidialectalism, cultural diversity, disparities in education systems, issues related to categorization and experimenter biases, availability of resources, comparability of stimuli and tasks, identifying a tertium comparationis) (Cheng et al. 2021).
- Review of recent research findings regarding cross-linguistic processing differences and their neural correlates.
- Discussion of dimensions along which speakers of different languages or varieties might diverge (e.g., reliance on explicit signals vs. top-down knowledge; granularity of typical processing units; balance between prediction and backward integration; temporal dynamics of processing).

Third Half Day

- Introduction to helpful resources for conducting cross-linguistic and cross-varietal psycholinguistic experiments.
- Presentation of the experimental programming software PCIbex, along with some practical examples of templates that can be adapted for your own experiments.

By the end of this workshop, participants will have gained a deeper understanding of the intricacies of cross-varietal diversity in online language processing and the tools necessary to conduct their own psycholinguistic experiments.

A final note on what this course will NOT be concerned with: (a) the linguistic relativity question, which concerns whether the language or variety spoken has an impact on non-linguistic cognitive, perceptual, or emotional processes; (b) the question how social bias and categorisation might affect online language processing in the listener.

Recommended reading:

Cheng, L. S. P., Burgess, D., Vernooij, N., Solís-Barroso, C., McDermott, A., & Namboodiripad, S. (2021). The Problematic Concept of Native Speaker in Psycholinguistics: Replacing Vague and Harmful Terminology with Inclusive and Accurate Measures. *Frontiers in Psychology*, 12, 715843. https://doi.org/10.3389/fpsyg.2021.715843

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33, 61–83. https://doi.org/10.1017/S0140525X0999152X

Sauppe, S., Andrews, C., & Norcliffe, E. (2023). Experimental research in cross-linguistic psycholinguistics. In S. Zufferey & P. Gygax (eds) *The Routledge Handbook of Experimental Linguistics*. Routledge, 156-172. https://doi.org/10.4324/9781003392972-12