

Time: Friday March 8, 2019, 13.15-16.15.

Local: 6-0031, Engelska Parken

13:20-14:00

- [Terry Regier](#) (UC Berkeley): Semantic typology and the Sapir-Whorf hypothesis in computational perspective
- Abstract: Why do languages have the semantic categories they do, and what do those categories reveal about cognition and communication? Word meanings vary widely across languages, but this variation is constrained. I will argue that this pattern reflects a range of language-specific solutions to a universal functional challenge: that of efficient communication -- that is, communicating precisely while using minimal cognitive resources. I will present a general computational framework that instantiates this idea, and will show how that framework accounts for cross-language variation in several semantic domains. I will then address the Sapir-Whorf hypothesis - the claim that such language-specific categories in turn shape cognition. I will argue that viewing this hypothesis through the lens of probabilistic inference has the potential to resolve two sources of controversy: the challenge this hypothesis apparently poses to the widespread assumption of a universal groundwork for cognition, and the fact that some findings supporting the hypothesis do not always replicate reliably.

14:00-14:40

- [Gerd Carling](#) (Lund University): Frequency, marking hierarchies, salience, iconicity, colexification, and semantic change tendencies: do suggested universal patterns impede or accelerate language change?
- Abstract: Evolutionary models offer a unique possibility to observe factors that impede or accelerate language change. The presentation will give an overview of my current research in grammar and lexicon, aiming at testing the correlations between some of the suggested universal patterns of the early typological literature and change rates of grammar and lexicon. We are aware that grammar in general has a higher change rate than lexicon, at least if we by lexicon target basic vocabulary (Greenhill et al 2017). In basic vocabulary, several factors such as frequency of word-usage and age of acquisition are known to affect lexical substitution rates (Pagel 2007, Vejdemo 2016). Using two different types of data (mainly from Indo-European), morphosyntactic and lexical (non-basic) culture data, and an evolutionary reconstruction model, I estimate change and transition rates for grammar and change probabilities for meanings in vocabulary (Cathcart et al 2018, Carling et al forthcoming). Substitution rates for basic vocabulary I adapt from Pagel et al (2007). In the results, change rates and change probabilities vary substantially both between and within domains, in grammar as well as in lexicon. An important issue is to identify mechanisms that underlie both differences *between* and *within* domains, which fundamentally depend on how we classify our domains. Using some of the suggested universal patterns, in grammatical typology as well as in semantics, as defined by Greenberg (1966), Ullman (1966), and Croft (1990), I will test whether change rates in grammar and lexicon can be predicted by the factors of frequency, marking hierarchies, salience, iconicity, colexification, and basic meaning change correlations.

14:40-14:50

- Break

14:50-15:30

- [Joakim Nivre](#) (Uppsala University): The Morphosyntactic Encoding of Core Arguments – A Cross-Linguistic Perspective
- Abstract: Languages use essentially three mechanisms to encode grammatical relations like subject and object: word order, case marking and agreement marking (or indexing). The relative importance of different mechanisms vary across languages and they also interact in complex ways. For example, it appears that predominantly verb-final languages favor case marking, while verb-initial languages favor agreement marking and verb-medial languages disfavor both marking strategies (Siewierska and Bakker, 2012). Most of these generalizations, however, are stated at the level of complete languages, and much less is known about how the different encoding strategies are distributed and interact in specific sentences in a given language. In this talk, I will present very preliminary results from an exploration of word order and case marking for core argument relations based on treebanks annotated in the Universal Dependencies project. On the one hand, I will look at word order distributions for verb, subject and object in transitive main clauses and discuss different ways of measuring word order freedom in terms of entropy, including variants of relation order entropy and arc direction entropy (Futrell et al., 2015). On the other hand, I will look at the presence of different types of case marking in the same transitive main clauses and see how these patterns correlate with word order distributions.

15:30-16:10

- [Sebastian Fedden](#) (University Sorbonne-Nouvelle Paris 3): Applying canonical typology: A fresh look at nominal classification