

How lexical meaning evolves. Methods and models of reconstructing the change patterns of semantic categories

Colloquium, Department Altertumswissenschaften, Universität Basel, May 13, 2024

Gerd Carling

The evolution of lexical semantics is an area where much research is still to be done. Over time, the meaning of words change, and this change is often unpredictable and open to a large number of options. In the presentation, lexical change will deal with nouns and verbs and their meaning change. Noun and verbs are open classes of which the only constraint is the reality of speakers, including their natural environment, cognitive preferences, and socio-cultural factors. These factors also impact the evolution and change of lexemes. In the current presentation, I will describe some of the problems and results connected to ongoing research of reconstructing the evolutionary dynamics and borrowability of lexical concepts in relation to their meaning. In addition, the presentation will talk about categorization – how nouns are categorised onto gender and noun class categories, and in which way this classification potentially is connected to borrowability and evolution. It is known that lexemes behave differently depending on their meaning. Lexemes have different substitution rates (Pagel, Atkinson, and Meade 2007), lexemes differ in their propensity for colexification (François 2008; Jackson et al. 2019), and lexical concepts have varying degrees of borrowability (Haspelmath 2009)(Carling et al. 2019). Further, evolutionary rates of concepts are varying depending on semantic class and property (Carling et al. 2023). In the presentation, these results will be connected to ongoing research on the evolutionary dynamics of gender. Linguistic gender is found in about 20% of the world's languages (Allasonnière-Tang et al. 2021), and these languages have conditions for how lexemes are assigned to gender categories (Corbett 2014, 2013). By data from the Indo-European and Arawak families I will demonstrate that the semantic core of gender assignment (i.e., cognitive factors) has an impact on the evolutionary rates of gender change in the lexicon. Apparently, core semantic properties (sexus, humanness, animacy) impact both evolutionary rates of lexemes as well as their gender categorization. A question that remains to be answered is whether cultural factors – which are known to influence borrowability (Carling et al. 2019) – also have an impact on semantic change in a larger perspective.

Contributions: Noor Efrat-Kowalsky, Marc Allasonnière Tang, Lev Michael, Filip Larsson, and Niklas Erben Johansson

Corbett, Greville G. 2013. "Gender typology." In *The Expression of Gender*, edited by Greville G. Corbett, 87-130. Berlin - New York: Mouton de Gruyter.

Corbett, Greville G. 2014. *The expression of gender [Elektronisk resurs]*. Berlin ;: De Gruyter Mouton.

François, Alexandre 2008. "Semantic maps and the typology of colexification. Intertwining polysemous networks across languages." In *From Polysemy to Semantic change: Towards a Typology of Lexical Semantic Associations.*, edited by Martine Vanhove, 163-215. Amsterdam: Benjamins.

Haspelmath, Martin. 2009. "Lexical borrowing: Concepts and issues." In *Loanwords in the World's Languages. A Comparative Handbook*, edited by Martin Haspelmath and Uri Tadmor, 35-54. Berlin - New York: DeGruyter.

Jackson, Joshua Conrad, Joseph Watts, Teague R. Henry, Johann-Mattis List, Robert Forkel, Peter J. Mucha, Simon J. Greenhill, Russell D. Gray, and Kristen A. Lindquist. 2019. "Emotion

semantics show both cultural variation and universal structure." *Science* 366 (6472):1517-1522. doi: doi:10.1126/science.aaw8160.

Pagel, Mark, Quentin D. Atkinson, and Andrew Meade. 2007. "Frequency of word-use predicts rates of lexical evolution throughout Indo-European history." *Nature* 449:717. doi: 10.1038/nature06176

<https://www.nature.com/articles/nature06176#supplementary-information>.

Allasonnière-Tang, Marc, Olof Lundgren, Maja Robbers, Sandra Cronhamn, Filip Larsson, One-Soon Her, Harald Hammarström, and Gerd Carling. 2021. "Expansion by migration and diffusion by contact is a source to the global diversity of linguistic nominal categorization systems." *Nature Humanities & Social Science - Communications* 8:331.

Carling, Gerd, Sandra Cronhamn, Rob Farren, Elnur Aliyev, and Johan Frid. 2019. "The causality of borrowing: Lexical loans in Eurasian languages." *PLOS ONE* October 30. doi: <https://doi.org/10.1371/journal.pone.0223588>.

Carling, Gerd, Sandra Cronhamn, Olof Lundgren, Victor Bogren Svensson, and Johan Frid. 2023. "The evolution of lexical semantics: dynamics, directionality, and drift." *Frontiers in Communication* 8. doi: <https://doi.org/10.3389/fcomm.2023.1126249>.