

Title of the course: Methods in Typology

Teacher: dr. Annemarie Verkerk

Contact

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Course info

Level: Advanced

Course prerequisites:

If you do not have any or very limited experience with R, please work through Chapter 2 of Levshina, Natalia. 2015. *How to Do Linguistics with R*. Amsterdam: Benjamins. Please bring your own laptop and install R & RStudio beforehand.

Course description:

In this course, we will be concerned with quantitative methods in typology. In the last decade, new methods for analyzing (large) typological datasets have started to be used: generalized mixed effect regression models, the Family Bias method (Bickel 2013), as well as phylogenetic comparative methods. An introduction to these three quantitative methods as well as typological sampling is given. During class, the class runs analyses in R together; after each class the students receive assignments to work on before the next session. In the case that students wish to work on their own datasets, please contact the teacher.

Day-to-day programme:

Monday: Traditional typological research and sampling

Tuesday: Generalized mixed effect regression models

Wednesday: Phylogenetic comparative methods I: Universals

Thursday: The Family Bias method

Friday: Phylogenetic comparative methods II: Continuous traits

Reading list

The readings will be made available in due time through a zip file.

Background and preparatory readings:

If you do not have any or very limited experience with R, please work through Chapter 2 of Levshina, Natalia. 2015. *How to Do Linguistics with R*. Amsterdam: Benjamins. Please bring your own laptop and install R & RStudio beforehand.

Course readings:

Class 1:

Cysouw, Michael. 2005. "Quantitative Methods in Typology = Quantitative Methoden in der Typologie." In *Quantitative Linguistics*, edited by Reinhard Köhler, Gabriel Altmann, and Rajmund G. Piotrowski, 554–78. Berlin: Walter de Gruyter.

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Dik Bakker. 2010. "Language Sampling." In *The Oxford Handbook of Linguistic Typology*, edited by Jae Jung Song. Oxford: Oxford University Press.

Class 2:

Coupé, Christophe. 2018. "Modeling Linguistic Variables With Regression Models: Addressing Non-Gaussian Distributions, Non-Independent Observations, and Non-Linear Predictors With Random Effects and Generalized Additive Models for Location, Scale, and Shape." *Frontiers in Psychology* 9 : 513. <https://doi.org/10.3389/fpsyg.2018.00513>.

Class 3:

Gray, Russell D., Simon J. Greenhill, and Robert M. Ross. 2007. The pleasures and perils of darwinizing culture (with phylogenies). *Biological Theory* 2 (4): 360–375.

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Dunn, Michael, Greenhill, Simon J., Levinson, Stephen C. & Gray, Russell D. (2011). Evolved structure of language shows lineage-specific trends in word-order universals. *Nature*, 473, 79-82.

Class 4:

Bickel, Balthasar. 2013. Distributional biases in language families. In Balthasar Bickel, Lenore A. Grenoble, David A. Peterson & Alan Timberlake (eds.), *Language typology and historical contingency*, 415–444. Amsterdam, Philadelphia: John Benjamins. DOI:10.5167/uzh-86870

Class 5:

Chapter 5 of Nunn, Charles L. 2011. *The Comparative Approach in Evolutionary Anthropology and Biology*. Chicago: University of Chicago Press.

Further readings:

More on sampling:

Miestamo, Matti, Dik Bakker, and Antti Arppe. 2016. "Sampling for Variety." *Linguistic Typology* 20 (2): 1–64.

More on language phylogenies:

Dunn, Michael. 2014. "Language Phylogenies." In *Routledge Handbook of Historical Linguistics*, edited by Claire Bowerman and Bethwyn Evans, 190–211. London: Routledge.

More on the Family Bias method:

Bickel, Balthasar. 2015. "Distributional Typology: Statistical Inquiries into the Dynamics of Linguistic Diversity." In *The Oxford Handbook of Linguistic Analysis, 2nd Edition*, edited by Bernd Heine and Heiko Narrog, 901–23. Oxford: Oxford University Press.

Example of recent paper in which quantitative methods are used:

Schmidtke-Bode, Karsten. 2019. "Attractor States and Diachronic Change in Hawkins's 'Processing Typology.'" In *Explanation in Typology: Diachronic Sources, Functional Motivations and the Nature of the Evidence*, edited by Karsten Schmidtke-Bode, Natalia

Levshina, Susanne Maria Michaelis, and Ilja A. Seržant, 123–48. Berlin: Language Science Press. <https://zenodo.org/record/2583814>.

More on phylogenetics with R:

Paradis, Emmanuel. 2006. *Analysis of Phylogenetics and Evolution with R*. New York: Springer.