

Workshop on Spatial Patterns of Language Evolution

Zürich, January 24, 2019

UPDATE

We are happy to announce Marco Túlio Pacheco Coelho as an invited speaker. Marco Túlio is a researcher at the Biocultural Diversity & Conservation lab at Colorado State University (USA) and at the Theoretical Ecology and Synthesis lab at Universidade Federal de Goiás (Brazil) where he uses methods of Biogeography, such as mechanistic simulation models, to investigate two fundamental facts about human diversity: why do humans speak so many languages and why are these languages so unevenly distributed across the globe.

Languages and linguistic properties spread in geographic space either by phylogeographic expansion (and fission) or contact. Phylogeographic expansion is the process by which a language evolves into several daughter languages, thereby losing and/or changing some properties of their ancestor. Contact is the process in which speakers of different languages interact, with the possible result of linguistic properties spreading from one language to another. The interplay of expansion and contact results in the current distribution of languages and linguistic properties in geographic space. Researchers have long studied this distribution to find patterns and relationships, and, ultimately, shed light on the underlying mechanisms of language evolution. Recently, this endeavor has gained considerable momentum thanks to the advance of quantitative methods from evolutionary biology.

We can loosely distinguish between two types of studies concerned with language evolution in space:

a) Reconstructing language evolution

Phylogeographic analysis aims to infer the expansion of language families in space and time. Researchers have, for example, reconstructed the most likely diffusion paths of Pama-Nyungan in Australia (Bouckaert, et al., 2018). Recently, quantitative studies have also focused on exploring the spread of linguistic patterns across phylogenies. A current study tracks the emergence of the British Isles as a linguistic area in North-Western Europe (Dedio, et al., forthcoming), i.e. a geographic region where languages share common properties that cannot be explained by common heritage or parallel development.

b) Exploring the interaction between space and language evolution

Studies of this type aim to show how spatial phenomena may shape and direct language evolution. The speed of the Bantu expansion in Sub-Saharan Africa, for example, has been shown to vary with land cover (Grollemund, et al., 2015). Moreover, environmental factors drive the distribution and diversification of languages in space and do so to a much stronger extent in food producing than in hunter-gatherer societies (Derungs, et al., 2018).

In spite of considerable progress, it remains unclear to what extent we can make generalizations with respect to the relationship between space and language evolution (Greenhill, 2015). In order to push the debate forward, we organize a workshop that brings together researchers from linguistics, geography, evolutionary biology and related disciplines interested in exploring language evolution in space.

Invitation to submit

We are especially interested in the following topics (but potential contributors should not feel restricted by them):

- Phylogeographic analysis, i.e. the spatio-temporal expansion of language families
- Language contact, i.e. the evolution of linguistic features in space across language families
- The mutual influence of space and language evolution, e.g. terrain, climate, trade routes or barriers to movement
- The relationship between linguistic features and spatial phenomena
- The coevolution of linguistic features and other (human) traits in space and time

Submission Guidelines

Abstracts (150-200 words) should be submitted as pdf to **splev.2019@gmail.com**, by **November 15, 2018**.

Acceptance decisions will be communicated by **November 30, 2018**.

For further information please contact **peter.ranacher@geo.uzh.ch**.

Bibliography

Bouckaert, R. R., Bown, C. & Atkinson, Q. D., 2018. The origin and expansion of Pama--Nyungan languages across Australia. *Nature Ecology & Evolution*, p. 1.

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Derungs, C., Köhli, M., Weibel, R. & Bickel, B., 2018. Environmental factors drive language density more in food-producing than in hunter-gatherer populations. *Proceedings of the Royal Society of London B: Biological Sciences*, Volume 285.

Greenhill, S. J., 2015. The Routledge handbook of historical linguistics. In: C. Bown & B. Evans, eds.:Routledge, pp. 557-578.

Grollemund, R. et al., 2015. Bantu expansion shows that habitat alters the route and pace of human dispersals. *Proceedings of the National Academy of Sciences*, Volume 112, pp. 13296-13301.