

# FFG Proposal: *Areal Morphology*

Coordinator: Balthasar Bickel

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## 1 Group members

### 1.1 At UZH

*Faculty:* Balthasar Bickel (IVS), Wolfgang Behr (AOI), Michele Loporcaro (IVS/Romance), Barbara Sonnenhauser (Slavic), Sabine Stoll (IVS), Robert Weibel (GIScience), Paul Widmer (IVS)

*Postdocs:* Chundra Cathcart (IVS), Curdin Derungs (SpuR), Vincenzo Faraoni (Romance), Francesco Gardani (IVS), Andreas Hölzl (IVS), Mathias Jenny (IVS), Tania Paciaroni (Romance/IVS), Diego Pescarini (Romance), Peter Ranacher (GIScience/SpuR), Tanya Samardžić (SpuR), Steven Moran (IVS), Rik Van Gijn (IVS), Max Wahlström (IVS), Géraldine Walther (IVS), Manuel Widmer (IVS)

*Predocs:* Svenja Bonmann (IVS), Stefan Dedio (IVS), Alice Idone (IVS), Serena Romagnoli (IVS), Tatyana Soldatova (SpuR), Florian Sommer (IVS/SpuR)

### 1.2 External collaborators

Jürg Fleischer (U Marburg), Spike Gildea (U Oregon, Eugene), Guillaume Jacques (CRNS-CRLAO Paris), Martin Maiden (U Oxford), Felicity Meakins (U Queensland), Pieter Muysken (Radboud U, Nijmegen), Johanna Nichols (UC Berkeley), Rachel Nordlinger (U Melbourne), Brigitte Pakendorf (CNRS-DDL Lyon), Jurgis Pakerys (Vilnius), Angela Ralli (U Patras), Erich Round (U Queensland), Anju Saxena (U Uppsala), Frank Seifart (U Amsterdam), Miguel Villanueva Svensson (U Vilnius), Fernando Zúñiga (U Berne)

## 2 Research theme and relevance for the URPP

### 2.1 Goal

The Areal Morphology Group seeks to determine the precise patterns and loci of areal diffusion and resistance against diffusion in morphology. In order to achieve this goal we combine

- detailed case studies on the diachronic evolution and ontogenetic development of morphology under contact
- phylogenetic modeling with explicit spatial and contact information over time, including geographical network models based on travel cost
- next generation parametrization of morphology, combining high-resolution databases and corpus-based, probabilistic approaches

In all these research tracks we focus specifically on agreement and other verbal morphology (valency-related derivations, tense/aspect/mood) and on the morphology/syntax interface (e.g. with regard to word vs. phrase domains, or behavior of agreement features in syntax).

## 2.2 State of the art and current activities of the group

The distribution of morphology in the world's languages is puzzling: on the one hand, there are seemingly obvious areal patterns that cross-cut several lineages at once (e.g. the isolating type in Southeast Asia, polysynthetic structures in North America). Also, morphology is prone to decay under L2 influx and multilingualism or to grow through contact-induced cliticization processes (e.g. Balkan Slavic). On the other hand, broad morphological types are often associated with individual lineages rather than areas (e.g. root-and-pattern morphology in Semitic), there are clear cases where morphology resists spread in language contact (e.g. Turkish kept its morphology despite centuries of heavy and varied L2 influx), and item borrowing is notoriously rare (although less rare than once thought).

Despite these puzzles, many debates on reconstructed proto-languages are critically informed by *bona fide* assumptions about the extent to which morphology or its absence spreads, especially with regard to agreement morphology (e.g. in Sino-Tibetan or in Niger-Congo). Also, current research on complexity in human language draws heavily on assumptions about the diachrony of morphology — most prominently, for example, in current debates on creole and mixed languages and the emergence of the human language faculty.

The Areal Morphology Group aims to determine the precise patterns and loci of areal diffusion and resistance against diffusion in morphology, with a particular focus on agreement and other verbal morphology (valency-related derivations/diathesis, tense/aspect/mood). We currently approach this goal via several interlocking tracks of research:

- **case studies** on the areal diachrony of specific aspects of morphology (or its absence), paying particular attention to the interface with syntax:
  - URPP SPuR PhD project on the morphology of Baltic in contact with Finnic and Uralic (Florian Sommer, advised by Wolfgang Behr, Balthasar Bickel, Michele Loporcaro, and Paul Widmer)
  - SNF project on the evolution of noun phrases in Indo-Iranian (PIs Paul Widmer and Balthasar Bickel)
  - SNF project on agreement patterns in Italo-Romance (PI Michele Loporcaro)
  - SNF project on contact phenomena in Raeto-Romance agreement systems (PIs Michele Loporcaro and Sabine Stoll)
  - DFG Project on the evolution of agreement in Celtic and Germanic (PIs Paul Widmer and Jürg Fleischer)
  - SNF project on areal diffusion of, among several other patterns, word vs. phrase domains in the Greater Burma zone (PI Mathias Jenny)
  - Kone Foundation visiting postdoc project on case decay in the Balkan area (Max Wahlström, hosted by Balthasar Bickel)
  - Swiss Government Excellence Scholarship on Torlak (Slavic) morphology (Teodora Vuković, advised by Tanya Samardžić and Barbara Sonnenhauser)
  - SNF Workshop on complementizers and TAM morphology in South Slavic (Barbara Sonnenhauser)
  - Canonical and less canonical grammatical gender systems in Romance and beyond (Continuation of Wissenschaftskolleg Berlin Project, PI Michele Loporcaro)
- **phylogeographical modeling** of the evolution of morphology in several large language families, focusing on both abstract patterns and lexical matter:
  - SNF Sinergia project LiMiTS (*Linguistic Morphology in Time and Space*) on contact effects on morphological developments in (i) Celtic and Romance in Europe, (ii) Sino-Tibetan and its neighbors in Asia, and (iii) Tupian, Quechuan and Cariban in South America. A critical component of LiMiTS is the integration of explicit and

detailed geographical data in our phylogenetic models, including both physical and human geography (PIs Balthasar Bickel, Wolfgang Behr, Curdin Derungs, Mathias Jenny, Michele Loporcaro, Fernando Zúñiga, Robert Weibel, and Paul Widmer).

- **acquisition** of morphology under contact and bilingualism:
  - ERC Consolidator project on universal principles of acquisition, with one focus (among several others) on how children acquire morphology of different types and degrees of complexity, informing our theories of trans-generational stability in morphology and the impact of language contact on this (several of the case studies in the ERC project involve bilinguals) (PI Sabine Stoll)
- **corpus-based typology** of morphology:
  - URPP SpuR PhD project on the areal distribution of morphological richness as detectable in corpora computationally (Tatyana Soldatova, advised by Tanya Samardžić, Martin Volk and Balthasar Bickel)
- **theoretical research** on the typology of morphology and the demarcation of word and phrase domains in grammar and phonology:
  - LiMiTS task force on the parameters of variation in morphology (Balthasar Bickel, Francesco Gardani, Rik Van Gijn and Manuel Widmer)
  - IG Morphology in the PhD Program Linguistics on current research in morphological theory (Stefan, Dedio, Anja Hasse, Alice Idone, Patrick Mächler, Tania Paciaroni, Serena Romagnoli, Florian Sommer, Rik Van Gijn, Manuel Widmer)

Current results across all these projects suggest that progress in both the areal diachrony and the acquisition of morphology requires a much more fine-grained parametrization of what constitutes ‘words’, ‘clitics’, ‘affixes’, ‘agreement’, ‘domains’, etc. This converges with the challenges met in corpus-based research (where traditional reliance on orthography tends to heavily skew results). A particular challenge remains the status of pronominal and agreement elements (clitics).

These challenges inform the plans described in the following.

### 3 Planned activities 2017-2020

The Areal Morphology group plans a series of activities and events and will conduct several pilot studies that serve as published proof-of-concept studies for grant proposals. In addition, the group proposes to hire a postdoc for research on contact effects on Raeto-Romance morphology and to extend the PhD position of Florian Sommer to three years. In order to increase the visibility of the URPP the group intends to invite Johanna Nichols to spend six months in Zurich as a visiting scholar.

#### 3.1 Externally funded activities

The following project proposals are currently in preparation or under review and will be submitted in fall 2016:

- SNF project on cross-linguistic morphological category mapping via automatic word alignment (Samardžić)
- SNF or D-A-CH project for developing a diachronic corpus of Balkan Slavic (Sonnenhauser)

- SNF Visit by Chris Bentz (U Tübingen) with a project on corpus-based approaches to morphological richness (host: Samardžić)
- ARC postdoc fellowship by John Mansfield (U Melbourne) on morphological complexity in contact and acquisition (hosts: Stoll and Gardani)

Further SNF project applications are planned for after 2017 (e.g. Complementizers and morphology in South Slavic in 2017; Morphology in the Slavic/Turkic contact zone in 2018; extension of the LiMiTS project in 2019)

### 3.2 URPP-funded or co-funded activities

The following is an ‘ideal world’ list of activities for which we seek funding from the URPP. Depending on the budgetary situation we will seek co-funding from agencies, overhead budgets and departments.

All activities involve substantial subsets of the FFG (often, indeed, the whole set) and the external collaborators. We mention in brackets the main organizer/convenor/coordinator/contact.

1. **Workshop** on matter borrowing vs. pattern borrowing (Gardani) in 2017
2. **Workshop** on areal and phylogenetic diachrony of morphology as opposed to lexicon and syntax (Van Gijn) in 2017
3. **Workshop** on the maintenance of morphological complexity (Gardani) in 2018
4. **Workshop** on geography and morphological evolution (Ranacher) in 2018
5. **Conference** on contact-induced change in morphology (Van Gijn) in 2020
6. **Seed money** for a pilot study on the emergence of morphology in mixed languages (Gardani) in 2017
7. **Seed money** for a pilot study on clitic doubling and differential object marking in the Slavic/Turkic contact zone (Sonnenhauser) in 2017
8. **Seed money** for a pilot study comparing the applicability of probabilistic models of contact effects across different modes of cultural evolution (language, archeology, poetics, literature) (Widmer) in 2019
9. **Seed money** for a pilot study comparing contact effects on morphology in contrast to phonology and syntax, based on a sample of populations that are known to have been in contact from genetics (Bickel) in 2017
10. **Seed money** for a pilot study comparing the effect of two spatial cost models (Euclidean distance vs. travel time along the river network) on morphological diversity in the Amazon region (Ranacher) in 2017
11. **Seed money** for a pilot study comparing the effect of two spatial cost models (Euclidean distance vs. accumulated altitude difference) on morphological diversity in the Amazon region (Ranacher) in 2018
12. **Visiting scholar**: Johanna Nichols, 6 months in 2018 (travel and accomodation)

### 3.3 URPP-funded personnel

We seek funding for one postdoc and one predoc position. For the **postdoc** position, the group proposes to hire Dr. Claudia Cathomas for the three-year period 2017-2020. She will work on language contact and mixing effects in Raeto-Romance agreement morphology in collaboration with Michele Loporcaro, Sabine Stoll and other group members. (A more detail description of this proposal is attached.).

For the **predoc** position, we propose to continue Florian Sommer’s contract until March 2018 (at which point he will have reached three years and will be finished with his dissertation). Afterwards, we plan to conduct an open search for a new student who will work on

the evolution of clitic doubling/agreement under contact. The choice of language, area and supervisors will be determined on the basis of the applications we receive.