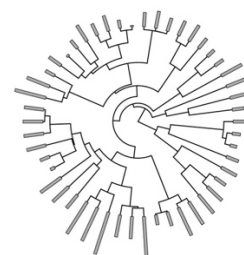


# First Swiss Workshop on Sociolinguistics, Language Contacts and Historical Linguistics in the Ancient World

Contacts: Marwan Kilani - [marwan.kilani@unibas.ch](mailto:marwan.kilani@unibas.ch)



9th-10th of February 2023

**PRACTICAL INFORMATION** (pp. 1-2), **WORKSHOP DINNER** (p. 2), **ZOOM PARTICIPATION** (p. 2),  
**PROGRAM** (pp. 3-4), **ABSTRACTS** (pp. 5-13)

## PRACTICAL INFORMATION

### WHAT IS IT ABOUT?

While questions of sociolinguistics, language contacts and historical linguistics in antiquity and prehistory are attracting new interest internationally, Switzerland lacks a space connecting scholars and students working on these topics.

The first Swiss Workshop on Sociolinguistics, Language Contacts and Historical Linguistics in the Ancient World aims at filling this gap, providing a venue to know each other, exchange ideas, and hopefully to develop future collaborations and synergies. The workshop is open to scholars based both inside and outside Switzerland.

### THE ORGANIZERS:

Prof. Paul Widmer	Comparative Indo-European Studies <i>University of Zurich</i>
Dr. Marwan Kilani	Contact linguistics in Ancient Egypt and the Levant <i>Basel University</i>
Milad Abedi	Contact linguistics in ancient Iran <i>University of Zurich</i>
Samira Müller	Cultural and linguistic contacts (India, Central Asia and China) <i>University of Zurich</i>

### CONTACTS:

For any question write to Marwan Kilani: [marwan.kilani@unibas.ch](mailto:marwan.kilani@unibas.ch)

### HOW MUCH:

The workshop is free and attendance is welcome also without presenting a paper

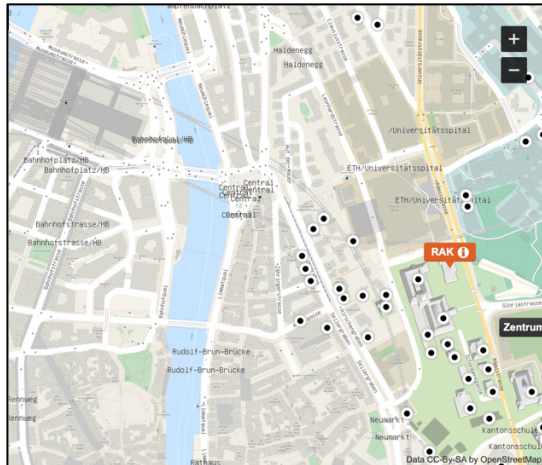
### WHEN:

9.2.2023	from 10.15 (talks starting at 10.30) to 16.30 (Zurich Time)
10.2.2023	from 10.30 to 16.30 (Zurich Time)

WHERE:

## Room RAK-E-6

The workshop is taking place in the seminar room **RAK-E-6** of the RAK building of the University of Zürich (Rämistrasse 73) where the archaeological collection is exhibited.



A larger map with the location of the building can be found here:

<https://www.plaene.uzh.ch/RAK/room/RAK-E-6>

## WORKSHOP DINNER

An informal dinner will take place the evening of the first day (9.2.2023). All speakers and attendees are welcome to join (at your own expense).

Please let us know if you would be interested in participating by e-mail Marwan Kilani ( [marwan.kilani@unibas.ch](mailto:marwan.kilani@unibas.ch) ) by Tuesday (7.2.2023), so that we can book a place.

## ZOOM PARTICIPATION

The papers will be streamed online via Zoom.  
To join, follow this link:

<https://unibas.zoom.us/j/63974237379>

Meeting ID: 639 7423 7379

## PROGRAM

DAY 1 – 9.2.2023

10.15-10.30	Introduction
-------------	--------------

<b>SESSION 1.1</b>	<b>EXPLORING LINGUISTIC COMMUNITIES IN ANCIENT SOCIETIES</b>
10.30-11.00	1. Approaching Sumerian Dialect Geography <i>Seraina Nett (Uppsala University; University of Copenhagen)</i>
11.00-11.30	2. Funerary Inscriptions: an Anatolian Formula? <i>Annick Payne (University of Bern)</i>
11.30-12.00	3. Measuring the Presence of Sociolects Using AI: Greek Tragedy and Social Letters from Graeco-Roman Egypt <i>Elodie Paillard (The University of Sydney/Universität Basel)</i> <i>Audric Wannaz (Universität Basel)</i>

### LUNCH

<b>SESSION 1.2</b>	<b>LINGUISTIC CONTACTS - THEORETICAL APPROACHES</b>
13.30-14.00	4. Wörter und Sachen in Raum und Zeit: Wanderwörter, triangulation, and social change in Central Asia <i>Rasmus G. Bjørn (Max Planck Institute for Geoanthropology Jena)</i>
14.00-14.30	5. Cultural spread by migration or by lateral transfer? <i>Michiel de Vaan (University of Lausanne and University of Basel)</i>
14.30-15.00	6. Is loanword phonology simpler? A statistical investigation <i>Neige Rochant (Sorbonne Nouvelle University / CNRS : Lacito – LLACAN)</i> <i>Marwan Kilani (University of Basel)</i>

### COFFEE BREAK

<b>SESSION 1.3</b>	<b>LINGUISTIC CONTACTS - TYPOLOGICAL PERSPECTIVES</b>
15.30-16.00	7. Linguistic diversity in the Ancient Near East <i>Paul Widmer (University of Zurich)</i> <i>Nour Efrat-Kowalsky (University of Zurich)</i>
16.00-16.30	8. Egyptian and its Auxiliary Verb Constructions: exploring a typological “chimera” <i>Marwan Kilani (University of Basel)</i>

DAY 2 – 10.2.2023

SESSION 2.1	HISTORICAL LINGUISTIC - GRAMMAR
10.30-11.00	9. To compound or not to compound? A diachronic Bayesian analysis of compounds and equivalent constructions <i>Oliver Hellwig (University of Zurich)</i>
11.00-11.30	10. Different Paths to the Same Destination: Particle Nominals in Northern Iroquoian <i>J. Drew Hancock-Thompson (University of Bern)</i>
11.30-12.00	11. AE = <i>da</i> and OP = <i>ci</i> in the Achaemenid Royal Inscriptions: Persian morphological calques in the Elamite writing practice. <i>Juan E. Briceño-Villalobos (Complutense University of Madrid)</i>

**LUNCH**

SESSION 2.2	LINGUISTIC CONTACTS - CASE STUDIES - 1
13.30-14.00	12. "I am also a camel" – a cultural and linguistic inquiry on the peculiar Chinese term for a 'bag-like' vessel or animal <i>Samira Müller (University of Zurich)</i>
14.00-14.30	13. “Why do I have to pay for the king’s camel?” – a critical overview of ancient Iranian terms for camels <i>Milad Abedi (University of Zurich)</i>

**COFFEE BREAK**

SESSION 2.3	LINGUISTIC CONTACTS - CASE STUDIES - 2
15.00-15.30	14. Iranian, Armenian, and contact-induced syntactic change: a <i>status quaestionis</i> <i>Robin Meyer (University of Lausanne)</i>
15.30-16.00	15. Innovations and archaisms in Alanic loanwords in Hungarian <i>Sampsä Holopainen (University of Vienna)</i>
16.00-16.30	Discussion and conclusive remarks

## **ABSTRACTS**

### **1. Approaching Sumerian Dialect Geography**

Seraina Nett (Uppsala University; University of Copenhagen)

Sumerian, the oldest written language, is known from more than a hundred thousand cuneiform texts on clay tablets from ancient Mesopotamia, roughly the area of modern Iraq. While Sumerian died out as a spoken language around 2000 BCE, it remained in use as a literary language for another two thousand years, until the end of cuneiform culture. It has long been acknowledged that Sumerian, while it existed as a spoken language (c. 3400–2000 BCE), consisted of at least two distinct dialects, a Northern and a Southern variety. The exact distribution of the purported dialect features, however, remains unclear, and we lack more in-depth information on the location of potential isoglosses and, more generally, on the location of the dialect divide between ‘North’ and ‘South’. Using the extensive geodata and text metadata assembled for the corpus of cuneiform texts in the course of the project *Geomapping Landscapes of Writing (GLoW)* at Uppsala University, our project attempts to close this gap in our knowledge of Sumerian dialects by linking the geographical distribution of cuneiform texts to Sumerian morphological and phonological features.

Drawing on this extensive dataset, we investigate variation on a larger scale, taking into account the geographical distribution while also controlling for diachronic developments and specific usage patterns in certain textual genres.

In this paper, I will demonstrate the potential of our approach using two case studies of Sumerian dialect features and also address the issues occurring due to the uneven distribution of the evidence and in particular the problems arising from approaching data in a writing system that masks major aspects of phonological change.

### **2. Funerary Inscriptions: an Anatolian Formula?**

Annick Payne (University of Bern)

This paper will consider the structure of funerary inscriptions across several text corpora from ancient Anatolia. Comparison of Lydian, Lycian and Luwian inscriptions raises the question whether, and if so to what extent one might speak of an “Anatolian formula” for funerary inscriptions. In particular, we shall ask whether proximity between the data from the three Anatolian corpora is defined by shared cultural practices? Is there evidence for linguistic borrowing or translation of concepts across different languages? What does this tell us about language contact? What is the status and function of bilingual inscriptions?

### **3. Measuring the Presence of Sociolects Using AI: Greek Tragedy and Social Letters from Graeco-Roman Egypt**

Elodie Paillard (The University of Sydney/Universität Basel)

Audric Wannaz (Universität Basel)

This paper will present a digital tool designed by Audric Wannaz to measure linguistic and discursive complexity in various Ancient Greek texts. We used it to assess the possible presence of sociolects in Classical Greek tragedy and private letters from Graeco-Roman Egypt.

After a brief presentation of the tool and a survey of the possible relation between linguistic/discursive complexity and socio-economic background of characters/people speaking/writing in ancient texts, we will discuss some of the results obtained for the two corpora.

#### 4. Wörter und Sachen in Raum und Zeit: Wanderwörter, triangulation, and social change in Central Asia

Rasmus G. Bjørn (Max Planck Institute for Geoanthropology Jena)

That culture is mediated between people defies all doubt, but it is often difficult to identify the exact prehistoric language trajectories that are responsible for the observed similarities and discrepancies in modern and historically attested languages. Current advances in genetics, archaeology, and historical linguistics nonetheless invite a reappraisal of previously proposed interfaces between language communities.

In my Ph.D., I focus on domesticated crops, fruits, and animals that spread across Central Asia prior to the historical period. By triangulating known and newly established trajectories of Indo-Iranic, Tocharian, Uralic, Turkic, Dravidian, and Burushaski, as well as prehistoric substrates such as the language of BMAC, hypotheses regarding words for archaeologically datable items find new arguments for a composite evaluation of their mutual relationships. Still short of comparable datasets in a prehistory of few anchors, I posit a preliminary step of using triangulation to establish the most likely time and place for each of these proposed transfers. Such proposals can now be evaluated in an increasingly illuminated human prehistory with new possibilities and constraints. The next step will inevitably be the rigorous analysis of sound substitutions.

In my talk, I will explore the methodological issues associated with triangulation and introduce my reappraisal of crucial dissemination events in Eurasian prehistory, including the numeral spread hypothesis (Helimski 2001: 190-192, Mallory & Adams 1997: 398, Bjørn 2020), the diffusion of domesticated plants and animals (Bjørn forthc., Laufer 1919), and the relative and concrete location of Indo-European, Turkic, and Uralic speech communities (Bjørn 2022). I conclude that nothing is easy, but the conversation is crucial for progress and requires the articulation of results and questions from each participating field.

#### References

- Bjørn, R. G. (2020). Nouns and foreign numerals: Anatolian ‘four’ and the development of the Proto-Indo-European decimal system. In Olander, T., & Serangeli, M. (Eds.), *Dispersals and diversification: Linguistic and archaeological perspectives on the early stages of Indo-European*, 54–76. Brill.
- Bjørn (2022) “Indo-European loanwords in Bronze Age Central and East Asia: Six new perspectives on prehistoric exchange in the Eastern Steppe Zone.” *Evolutionary Human Sciences* 4, E:23
- Bjørn (forthc.) “By Steppe Highway or Mountain Corridors? Exploring the Archaeolinguistic Arguments for the Provenance of Western Eurasian Crops and Livestock in Central and East Asia.” In Robbeets & Hudson (eds.) *The expansion and exchange of agropastoralism and languages across Eurasia*. BAR
- Helimski, E. (2001). “Early Indo-Uralic languages relationships: Real and imagined contacts.” In Carpelan, C., Parpola, A., & Koskikallio, P. (Eds.), *Early Contacts between Uralic and Indo-European: Linguistic and archaeological considerations. Mémoires de la Société Finno-Ougrienne*, 242, 187-205. Helsinki: Suomalais-ugrilaisen Seura.
- Laufer, Berthold (1919). *Sino-Iranica. Chinese contributions to the history of civilization in ancient Iran, with special reference to the history of cultivated plants and products*. Chicago (IL): Chicago Field Museum of Natural History.
- Mallory, James P. & Douglas Q. Adams (1997). *Encyclopedia of Indo-European Culture*. Chicago (IL) & London: Fitzroy Dearborn.

## 5. Cultural spread by migration or by lateral transfer?

Michiel de Vaan (University of Lausanne and University of Basel)

The process by which Indo-European languages spread across Europe in the Bronze Age remains the subject of controversy. Recent advances in archaeology and palaeogenetics are yielding an ever increasing amount of data which clarify details on the lifestyle and whereabouts of ancient individuals, but the interpretative frameworks of the various disciplines do not always align. Most linguists and many geneticists are happy to assume large-scale prehistoric migrations to explain their data, but many archaeologists call for caution or even dismiss linguistic reconstructions of population prehistory in an outright way. Although the more extreme views can easily be refuted, it will be wise to take the archaeologists' worries seriously, in order to ensure a continued, fruitful cooperation between our disciplines. In my talk I will therefore discuss some recent papers which seem of specific interest to historical linguists dealing with Indo-European (and other language families).

### References

- Demoule, Jean-Paul. 2014. *Mais où sont passés les Indo-Européens? Le mythe d'origine de l'Occident*. Le Seuil, Paris.
- Furholt, Martin. 2021. Mobility and Social Change: Understanding the European Neolithic Period after the Archaeogenetic Revolution. *Journal of Archaeological Research* 29, 481–535.
- Hansen, Svend. 2019. Noch einmal: Abschied von den Indogermanen. In: Hansen, S., Molodin, V. I., and Mylnikova, L. M. (eds.), *Mobilität und Migration: Konzepte, Methoden, Ergebnisse* [etc.]. Nowosibirsk: Institute of Archaeology and Ethnography at the Siberian Branch of the Russian Academy of Sciences, 44–60.
- Kaiser, Elke. 2019. *Das dritte Jahrtausend im osteuropäischen Steppenraum: Kulturhistorische Studien zu prähistorischer Subsistenzwirtschaft und Interaktion mit Benachbarten Räumen*. Berlin: Topoi.
- Kristiansen, K., Allentoft, M. E., Frei, K. M., Iversen, R., Johannsen, N. N., Kroonen, G., et al. 2017. Re-theorising mobility and the formation of culture and language among the Corded Ware culture in Europe. *Antiquity* 91, 334–347.

## 6. Is loanword phonology simpler? A statistical investigation

Neige Rochant (Sorbonne Nouvelle University / CNRS : Lacito – LLACAN)

Marwan Kilani (University of Basel)

Loanwords are one of the main sources of information for the study of interactions in ancient and prehistoric contexts. Hence, distinguishing potential loanwords from inherited words is a crucial and often controversial issue. In the past, scholars have deployed language-specific approaches (e.g. looking for phonotactic inconsistencies – cf. Kang 2011), but more recently, the rise of new computational and phylogenetic methods has led to a growing interest in the possibility to identify features and patterns that characterize loanwords cross-linguistically (Zhang, Fabri, and Nerbonne 2021; Miller et al. 2020; Nath et al. 2022). This contribution belongs to this second line of research.

It stems from the anecdotal observation that, within a language, loanwords often seem to pick from poorer phonemic inventories than inherited words. In order to investigate this intuition, we first performed a series of statistical analyses on the WOLD database (Haspelmath and Tadmor 2009; 2021). In particular, we verified that loanwords tend to contain fewer rare and/or coarticulated phonemes (e.g. labial-velars and ejectives). Since the statistical data yielded positive results, we then built a model verifying two hypotheses for a partial explanation of this phenomenon: 1) loanwords tend to contain fewer cross-linguistically rare phonemes than inherited words simply because being cross-linguistically rare, they are less likely to be found both in the source and in the target languages, and hence more likely to be reinterpreted and replaced by more common phonemes when borrowed; 2) loanwords tend to contain fewer co-articulated phonemes because phonemes of the source words that are absent in the target languages tend to be replaced by mono-articulated phonemes more often than by co-articulated phonemes. This could be explained by the hypothesis that co-articulated phonemes are more often perceived as marked, and that phoneme replacements tend to favor less marked phonemes. As will be discussed in the conclusions, the results we have obtained raise interesting questions and problems that are relevant for the search of loanwords in ancient/prehistoric contexts. Finally, we will also mention a

few of the practical issues we have encountered in our analyses, as they highlight gaps in the scholarship and point to potential avenues for further research.

## References

- Haspelmath, M. and U. Tadmor, eds. (2009). *WOLD*. Leipzig: Max Planck Institute for Evolutionary Anthropology. url: <https://wold.clld.org/>.
- (2021). *CLDF dataset derived from Haspelmath and Tadmor's "World Loanword Database" from 2009*. type: dataset. doi: 10.5281/ZENODO.5139859.
- Kang, Y. (2011). "Loanword Phonology: Loanword Phonology". en. In: *The Blackwell Companion to Phonology*. Ed. by M. van Oostendorp et al. Oxford: John Wiley & Sons, Ltd, pp. 1–25.
- Miller, J. E. et al. (Dec. 2020). "Using lexical language models to detect borrowings in monolingual wordlists". en. In: *PLOS ONE* 15.12. Ed. by S. Wichmann, e0242709.
- Nath, A. et al. (Oct. 2022). "A Generalized Method for Automated Multilingual Loanword Detection". In: *Proceedings of the 29th International Conference on Computational Linguistics*. Gyeongju, Republic of Korea: International Committee on Computational Linguistics, pp. 4996–5013.
- Zhang, L., R. Fabri, and J. Nerbonne (2021). "Detecting loan words computationally". en. In: *Contact Language Library*. Ed. by E. O. Aboh and C. B. Vigouroux. Vol. 59. Amsterdam: John Benjamins, pp. 269–288.

## 7. Linguistic diversity in the Ancient Near East

Paul Widmer (University of Zurich)

Nour Efrat-Kowalsky (University of Zurich)

It is generally assumed that the current world-wide distribution of linguistic features is timeless, i.e. it represents universal preferences. In this paper I will present and discuss evidence from ancient languages from the Ancient Near East that challenges this assumption: It might be that the ancient distribution as attested in the earliest written remains differed from the modern one.

## 8. Egyptian and its Auxiliary Verb Constructions: exploring a typological "chimera"

Marwan Kilani (University of Basel)

To paraphrase McWhorter (and Behr), one might be tempted to say that "Egyptian is not normal." One of its most bizarre characteristics is the weird (and often redundant) combination and coexistence of quite disparate forms and patterns, and this at multiple linguistic levels (lexicon, morphology, syntax, even phonology). In many respects, Egyptian seems to be made of bits and pieces put together into a sort of linguistic chimera. But why is this so? The present paper will look from a typological perspective at the morphosyntax of verbal main initial clauses, which is one of the domains of the Egyptian language where this "chimeric" features are more evident.

Egyptian is an Afro-asiatic language, and its verbal system preserves some forms attested in other Afro-Asiatic languages, with striking similarities in morphology and semantics especially with Semitic languages. However, in Egyptian these forms are embedded in syntactic patterns introduced by auxiliary verbs (AUX) that are very uncommon or completely absent in non-African Semitic languages. By contrasts, such Auxiliary Verb Constructions are very common across various families of African languages. Since Egypt is, after all, in Africa, one could indeed expect that Egyptian shared features with other African languages. Yet, even from an African perspective Egyptian is unusual, as its set of Auxiliary Verb Constructions is remarkably varied, with patterns that not only have their best parallels in different areas and language families, but which also rarely appear together, or which even tend to be mutually exclusive (such as the coexistence of AUX-Lexical\_Verb and Lexical\_Verb-AUX constructions). In this paper I will illustrate a selection of the most striking cases of this "typological melting-pot", contextualizing them within a sociolinguistic frame that takes into account both the history of the Egyptian language and that of the Egyptian state(s). When all these data are combined a possible explanation emerges, namely that this combination of forms and constructions is the result of a stratification, within the written, elite-centered form(s) of the language (the only we have access to), of the traces left by various distinct linguistic encounters that might have taken place in different places, periods, and social milieux within the Egyptian state(s).



## 9. To compound or not to compound? A diachronic Bayesian analysis of compounds and equivalent constructions

Oliver Hellwig (University of Zurich)

A characteristic trait of Vedic as well as Classical Sanskrit is the use of nominal compounds, a feature shared with other Indo-European languages (Kastovsky 2009). Diachronic linguistic studies have observed an increasing use of compounds in Vedic and Sanskrit texts, especially since the period of the Sūtra literature (Wackernagel 1905; Renou 1956). It is also generally accepted that compounds should be read as syntactic phrases (see e.g. Lowe 2015) and that they can be equivalent to subordinate clauses (Jacobi 1897). However, it has not yet been studied whether and to which degree compounds replaced their uncompounded equivalents such as relative clauses, adverbial clauses, and participle constructions over time. Using manually validated data from the Vedic Treebank (Hellwig, Scarlata, et al. 2020) as well as the output of a recently developed dependency parser for Vedic Sanskrit (Hellwig, Nehrdich, and Sellmer Under review), this presentation addresses the questions if compounding replaced syntactically equivalent constructions and to which explanatory factors such a process can be attributed. The presentation concentrates on compounds used as adnominal and adverbial modifiers (i.e. attributives and depictives; see Widmer and Scarlata 2021), and compares their frequency distributions with those of relative clauses (for attributive compounds), adverbial clauses (for depictives) and participle constructions (for both types). Since the number of relevant cases is limited and the socio-linguistic factors driving the use of compounds are far from being well understood, the observed distributions are modeled with a hierarchical Bayesian framework that aims at obtaining an optimal subset from a set of possible explanatory variables (chronology, register, genre and school affiliation of the Vedic texts) using leave-one-out cross-validation (Vehtari, Gelman, and Gabry 2017).

## References

- Hellwig, Oliver, Sebastian Nehrdich, and Sven Sellmer (Under review). “Data driven Dependency Parsing of Vedic Sanskrit”. In: *Journal for Language Resources and Evaluation*.
- Hellwig, Oliver, Salvatore Scarlata, et al. (2020). “The Treebank of Vedic Sanskrit”. In: *Proceedings of the LREC*. Ed. by Nicoletta Calzolari et al., pp. 5139–5148.
- Jacobi, Hermann (1897). *Compositum und Nebensatz. Studien über die in dogermanische Sprachentwicklung*. Bonn: Verlag von Friedrich Cohen.
- Kastovsky, Dieter (2009). “Diachronic Perspectives”. In: *The Oxford Hand book of Compounding*. Ed. by Rochelle Lieber and Pavol Štekauer. Oxford Handbooks in Linguistics. Oxford; New York: Oxford University Press, pp. 323–340.
- Lowe, John J. (2015). “The Syntax of Sanskrit Compounds”. In: *Language* 91.3. Publisher: Linguistic Society of America, pp. 71–115.
- Renou, Louis (1956). *Histoire de la langue sanskrite*. Lyon: Edition IAC.
- Vehtari, Aki, Andrew Gelman, and Jonah Gabry (2017). “Practical Bayesian Model Evaluation Using Leave-one-out Cross-validation and WAIC”. In: *Statistics and Computing* 27.5, pp. 1413–1432.
- Wackernagel, Jakob (1905). *Altindische Grammatik. Band II, 1: Einleitung zur Wortlehre. Nominalkomposition*. Göttingen: Vandenhoeck & Ruprecht.
- Widmer, Paul and Salvatore Scarlata (2021). “R̥gvedic Depictive Adjectival Compounds and their Functions”. In: *Journal of South Asian Languages and Linguistics* 8.1-2, pp. 41–57.

## 10. Different Paths to the Same Destination: Particle Nominals in Northern Iroquoian

J. Drew Hancock-Thompson (University of Bern)

This paper examines Northern Iroquoian nominal particles. Following the traditional classification, Northern Iroquoian languages have a basic distinction between morphological nouns, verbs, kinship terms, and particles (Mithun, 2000; Koenig and Michelson, 2010; Michelson, Forthcoming). Cross cutting this categorisation is the ability for verbs, kinship terms, and some particles to function syntactically as arguments of a predicate without nominalisation; where they are referred to as nominals in the literature (Mithun, 2000, 411). This presentation focuses on the diversity of nominal particles’ historical sources as well as their remarkable semantic unity.

Northern Iroquoian particles are defined tautologically as a class by not being nouns, verbs, or kinship terms (Mithun, 2000), or by not participating productively in the pronominal prefix system (Hancock-

Thompson, In Prep). Unlike formal nouns or nominalised verbs, nominal particles cannot be incorporated. Despite this morphological unity, there are many historical sources for nominal particles, including: inheritance from Proto-Iroquoian as in \*tiPô ‘skunk’ (Julian, 2010, 543), loans from outside the family as in Mohawk *tak’o:s* ‘domestic cat’ from Dutch *de poes* (Mithun, 2000, 418), possible loans from inside the family as in Cayuga *soho:t* ‘turkey’ (Froman et al., 2002, 348) from Seneca *o’s’o:’on* ‘turkey’ (Chafe, N.D., 177), onomatopoeia as in Tuscarora *n’iisniijs* ‘speckled woodpecker’ (Rudes, 1999, 374), and possible innovations such as Oneida *e’lhal* ‘dog’ (Michelson and Doxtator, 2002, 970). Most interestingly, practically all nominal particles are words for animals, and a discussion of the semantic range of these nominal particles forms a core part of this presentation.

After laying a foundation in Northern Iroquoian word categories and functions, the presentation illustrates the diverse historical origins of nominal particles. The second half of the presentation takes an in-depth look at the semantic core and periphery of the nominal particles. Last, this system is compared with the possibly related Caddoan family, which also restricts the incorporation of animal words (see Parks and Pratt 2008 for example).

## References

- Chafe, Wallace L. N.D. *English-Seneca Dictionary*.
- Froman, Frances, Alfred Keye, Lottie Keye, and Carrie Dyck. 2002. *English-Cayuga, Cayuga-English Dictionary*. Toronto: Canada: University of Toronto Press.
- Hancock-Thompson, J Drew. In Prep. Defining the Particle in Northern Iroquoian. Universit’at Bern.
- Julian, Charles. 2010. A History of the Iroquoian languages. Doctoral Dissertation, University of Manitoba, Winnipeg: Canada.
- Koenig, Jean-Pierre, and Karin Michelson. 2010. Argument Structure of Oneida Kinship Terms. *International Journal of American Linguistics* 76:169–205.
- Michelson, Karin. Forthcoming. Word classes in Iroquoian languages. In *Oxford Handbook of Word Classes*, ed. Eva van Lier. Oxford: England: Oxford University Press.
- Michelson, Karin, and Mercy Doxtator. 2002. *Oneida-English/English Oneida Dictionary*. University of Toronto Press.
- Mithun, Marianne. 2000. Noun and verb in Iroquoian languages: Multicategorisation from multiple criteria. In *An Anthology of Word Classes*, ed. Petra M Vogel and Bernard Comrie, 379–420. Berlin: Germany: Mouton De Gruyter.
- Parks, Douglas Richard, and Lula Nora Pratt. 2008. *A Dictionary of Skiri Pawnee*. Lincoln: USA: University of Nebraska Press.
- Rudes, Blair A. 1999. *Tuscarora-English/English-Tuscarora Dictionary*. Toronto: Canada: University of Toronto Press.

## 11. AE =*da* and OP =*ci* in the Achaemenid Royal Inscriptions: Persian morphological calques in the Elamite writing practice.

Juan E. Briceño-Villalobos (Complutense University of Madrid)

In this presentation, I will argue that Achaemenid Elamite displays structures that are reflexes not only of Old Persian, but also of Middle Persian morphology. I will take as a case study the occurrences of the focus particle AE =*da/te* ‘also’, which seems to be parallelly employed in formations where OP =*ci* (< IE \*=*k<sup>w</sup>id*) appear. In addition, I will survey formations where MP =*iz* (< OIr. \*=*čid*) occurs and can be equated to AE structures. The particle AE =*da/te* formations under study will be the following: AE *mešamerak=da* ‘then, afterwards’, AE *šašša=da* ‘before’, AE *hi zila=da* ‘thus’, AE *appuka=da* ‘former’, AE *am=da* ‘now’, AE *marri=da* ‘all, every’, AE *hamer=da* ‘back then, in that moment’, AE *dae-ki=da* ‘else, any other’, AE *kudda* ‘and’, AE *nu=da* ‘you’, AE *kappa=da=na* ‘together’, AE *in nubbe=da* ‘same, according’, AE *hupimer=da* ‘then, after that’, AE *madda* ‘there’, AE *kapida* ‘completely, whole’, AE *nanra=da* ‘daily’, and, finally, AE *-p=da* ‘also, thus’. After the linguistic analysis, I will discuss the implications behind this morphological interference.

Abbreviations:

AE = Achaemenid Elamite, IE = Indo-European, MP = Middle Persian, OIr. = Old Iranian OP = Old Persian

## 12. "I am also a camel" – a cultural and linguistic inquiry on the peculiar Chinese term for a 'bag-like' vessel or animal

Samira Müller (University of Zurich)

The Chinese term for camel, *tuótuó* 橐駝 (Old Chinese: *\*tʰak-lʰaj* > Middle Chinese *thak-da*), which was alternatively written as *luòtuó* 駱駝 *\*[r]ʰak-lʰaj* > *lak-da* since the Eastern Han dynasty (25–220 CE) displays the features of a transcribed foreign word: It is clearly a disyllabic word and is written in multiple variants even in transmitted literature.

The oldest Chinese evidence of a term allegedly connected with the term for camel is surprisingly not found in a gift list or description of the north(west)ern region, but appears on vessels naming themselves *shítuó* 石沱 (Old Chinese *\*dAk-lʰaj* > Middle Chinese *dzyek-da*). Both, the phonetic similarity and the find of a lamp stand depicting a person riding on a Bactrian camel in a grave adjacent to the area the vessels were found at, led people to believe, that the special vessel type was actually called by the same name as the camel. Since *tuó* 橐 is the pictographic character for a sack closed on both ends with the phonophoric component *shí* 石 (lit. 'stone') in the middle, both the form of the vessel and the signature humps of the camel have been explained as 'bag-like'. Thus, the word is claimed to be an internal Chinese neologism by the time the first domesticated animals possibly reached the northern States of the Eastern Zhou dynasty (771–256 BCE). (cf. Wang Xiaomei 2019, Huang Jinqian 2016 & 2020)

However, there are a several points where the story seems questionable: The 'bag-like' vessel type and the aforementioned lamp stand were found in the area of the ancient State of Chǔ 楚, which defined the southern periphery of the Eastern Zhōu realm. Whatever camel reached the south must have passed through the northern states, thus it is puzzling that the zoonym first appears in the south without leaving any trace in the north. As similar as the vessel term and the term for camel may be, the possibility that *shítuó* 石沱 could have been an Austroasiatic vessel term – the transcription of which highly resembled the later adopted term for camel – should be considered. This seems especially likely considering that the lamp stand was found in a grave from the Warring States period (476–221 BCE), while the earliest 'bag-like' vessels already appeared in the preceding Middle Spring and Autumn period (770–476 BCE). Even though varieties of the wild Bactrian camel were native to the region around the great bend of the Yellow River in northwestern China (Bonora 2020, 750) and some even claim that the earliest (semi-)domesticated camels are found in the area of modern Inner Mongolia around the turn of the sixth millennium BCE (Potts 2004, 148), i.e. almost three millennia before camels were systematically bred in Bactria (!), in China, the 'bag-carrying' animal only became popular by the 4th century BCE. Finally, the term *tuótuó* 橐駝 'camel' is most certainly a foreign term. Pulleyblank (1962) suspected it to be a word borrowed from the *Xiōngnú* or the Tocharian language. In fact, apart from Toch. B *wāstarye* 'pertaining to camels', from which *\*wāstār/\*wāstare/\*wastre* 'camel' can be reconstructed, Toch. B *partākaññe* has been proposed by Adams (1999) to mean 'pertaining to a camel' [?], which possibly derived from *\*partākto* 'camel'. While the first one must be related to Avestan *uštra-*, if the second term is indeed related to the camel, a connection to the Middle Chinese term for camel, *thakda*, becomes possible.

## 13. "Why do I have to pay for the king's camel?" – a critical overview of ancient Iranian terms for camels

Milad Abedi (University of Zurich)

There are several Old and Middle Iranian texts mentioning camels. Also, the Iranian contact languages contain texts about the camels of the Persian king. For example, an Aramaic letter found in Bactria during the reign of Artaxerxes III (359/8–338 BC) talks about the complaints of camel keepers concerning the unfair tax that was imposed on them. This document uses the Persian term for 'camel keepers' and the Aramaic term for 'camel.'

The history of the camel and Persian empires were intertwined in many ways, such as trade, military, and art. Bactrians were depicted in Persepolis while they were offering *Camelus bactrianus* to the Persian king, also later, in Sasanian time (224–651 CE), camels appeared on seals.

Languages of the western contact zone of Semitic languages (Europe and Africa), mainly borrowed the Arabic term for ‘camel,’ however, this situation was different in the eastern contact zone of Semitic languages. For instance, Iranian languages, which have been in contact with Semitic languages directly and indirectly at least since 1000 BCE, have never borrowed Semitic terms for camels.

This presentation re-examines the etymology of ‘camel’ in the Old Iranian (until 400 BC). Also, Middle Iranian languages (300 BC–700 CE) contain diverse data regarding camel terms, which are all further developments of Old Iranian terms. The etymology of Iranian terms for camel is a place of dispute, different scholars of the Iranian languages, such as Jackson (1919) and Bailey (1953), commented on the etymology of the Avestan *uštra-* ‘camel’ Old Persian *uša-* ‘camel’. Indo-European (henceforth IE) linguists, such as Pokorny, tried to link it to Indo-European forms such as IE *\*us-tlo-* ‘male animal.’ However, a more recent study (Lubotsky 2020) considers the Iranian term for camel as a loanword from Bactria–Margiana Archaeological Complex.

#### 14. Iranian, Armenian, and contact-induced syntactic change: a *status quaestionis*

Robin Meyer (University of Lausanne)

Armenian forms an independent branch in the IndoEuropean language family, but owing to its geographical position in the Armenian Highlands has been influenced by both Greek and the West Middle Iranian languages (Parthian and Middle Persian) to such an extent that, until the end of the 19th century, it was thought to be a member of the Iranian branch (Hübschmann 1875). This is little surprising given constant contact with Iranian languages since the 6th century BCE and Iranian rule over the Armenians for over a millennium thence.

Whilst Greek makes its influence felt largely through learned borrowings and in the establishment of a grammatically unusual genre of translation literature, the Iranian influence is ubiquitous in the lexicon and phraseology, derivational morphology, and even syntax of Armenian. While the former fields have received a great deal of attention over the course of the 20th century (cf. esp. Bolognesi 1960; Schmitt 1983), syntactic parallels due to language contact have not been studied for that long.

The ‘borrowings’ scrutinised in any degree of detail to date are the Armenian periphrastic perfect, its quotative marker, and an intensifier used with specific anaphoric functions, all of which have unusually close counterparts in the West Middle Iranian languages, in particular Parthian (Meyer 2013, 2017). These parallels arise, it has been argued, by means of pattern replication (cf. Matras and Sakel 2007) and as the result of a superstrate shift (Meyer 2022): owing to a number of sociohistorical circumstances (fall of the Parthian Empire, intermarriage and exchange of wards between Armenian and Parthian families, joint Christianisation, etc.) the Parthian ruling class began to identify as Armenian over the course of the 3rd and 4th centuries CE and adopted Armenian as their everyday language, making their Parthianinfluenced Armenian the new prestige variety.

This paper aims to give an overview of what is known of the Iranian influence on Armenian syntax and to propose further avenues of future research.

#### References

- Bolognesi, G. (1960) *Le fonti dialettali degli imprestiti iranici in armeno*, Milan: Società Editrice Vita e Pensiero.
- Hübschmann, H. (1875) “Ueber die stellung des armenischen im kreise der indogermanischen sprachen,” *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen* 23 (1), 5–49.
- Matras, Y. and Sakel, J. (2007) “Investigating the mechanisms of pattern replication in language convergence,” *Studies in Language* 31 (4), 829–865.
- Meyer, R. (2013) “ArmenoIranian Structural Interaction: the Case of Parthian *wxd*, Armenian *ink’n*,” *Iran and the Caucasus* 17 (4), 401–425.
- Meyer, R. (2017) *IranianArmenian language contact in and before the 5th century CE. An investigation into pattern replication and societal multilingualism*, Ph.D. thesis, University of Oxford, Oxford.
- Meyer, R. (2022) “Alignment Change and Changing Alignments: Armenian Syntax and the First ‘Death’ of Parthian,” in M. Bianconi; M. Capano; D. Romagno; and F. Rovai (eds.), *Ancient IndoEuropean Languages between Linguistics and Philology. Contact, Variation, and Reconstruction*, Leiden: Brill, 211–233.
- Schmitt, R. (1983) “Iranisches Lehnwort im Armenischen,” *Revue des Études Arméniennes* 17, 73–112.

## 15. Innovations and archaisms in Alanic loanwords in Hungarian

Sampsa Holopainen (University of Vienna)

In my presentation, I will discuss phonological problems of Alanic loanwords in Hungarian and their impact on the reconstruction of Ossetic historical phonology. The loanwords show a paradoxical picture, displaying “Proto-Ossetic” archaisms but also innovations typical to the Iron dialect. Some loans point to Iron *i* < Proto-Ossetic \**ē* (Hungarian *fizet* ~ Ossetic *fidyn*, *fedun* ‘to pay’) and *u* < Proto-Ossetic \**ō* (Hungarian *bűz* ~ Ossetic *bud*, *bodæ* ‘smell’), whereas the Alanic attested around the 14<sup>th</sup> century was still very close to Proto-Ossetic (Lubotsky 2015, *Alanic marginal notes in a Greek liturgical manuscript*), so it is not unproblematic to assume “Iron” developments at a time that must have preceded these attestations by several centuries. The loans also point to some archaisms, such as the reflex of Proto-Iranian \**d* being realized as spirant \**δ* as in Sogdian and Chwarezmian, rather than a stop as in modern Ossetic (cf. Cheung 2002: 21, *Studies in the historical development of the Ossetic vocalism*).

Sköld (1925: 76–78, *Die ossetischen Lehnwörter in Ungarischen*) considered an Iron-like dialect a possible donor, but on the other hand attempted to explain some problems through later changes in Hungarian. In recent research (Róna-Tas & Berta 2011: 1331–1339, *West Old Turkic*) little attention has been paid to the sound-substitutions of the loans. These problems and also the methodological issue of the role of loanwords in historical phonology will be discussed in detail in this presentation.

Alanic–Hungarian contacts are an interesting case-study on prehistoric contacts, as they took place in late prehistoric period (the middle of the 1<sup>st</sup> millennium CE), only few centuries before the mediaeval attestations of Old Hungarian and Alanic; however, the loanwords still reflect reconstructed stages of these languages, and the sound-substitutions leave room for different interpretations.