Some practical information on the workshop on
"Language shift and substratum interference in (pre)history"
11-12 July 2017, MPI-SHH (Jena)

Beginning: 11 July, 9h00
End: 12 July, 18h00

The **workshop venue** is the Max Planck Institute for the Science of Human History, http://www.shh.mpg.de/en, Kahlaische Strasse 10, 07745 Jena, Tel: 03641- 686 801. The workshop takes place in seminar room V14 in the villa on the first floor.

There are **no registration fees**, but please contact Kerstin Schück-Tittmann (schueck@shh.mpg.de) if you want to attend the workshop so that she can keep track of the number of participants (all presenters are already registered!).

Here are some **travel directions**: http://www.shh.mpg.de/59353/travel_directions

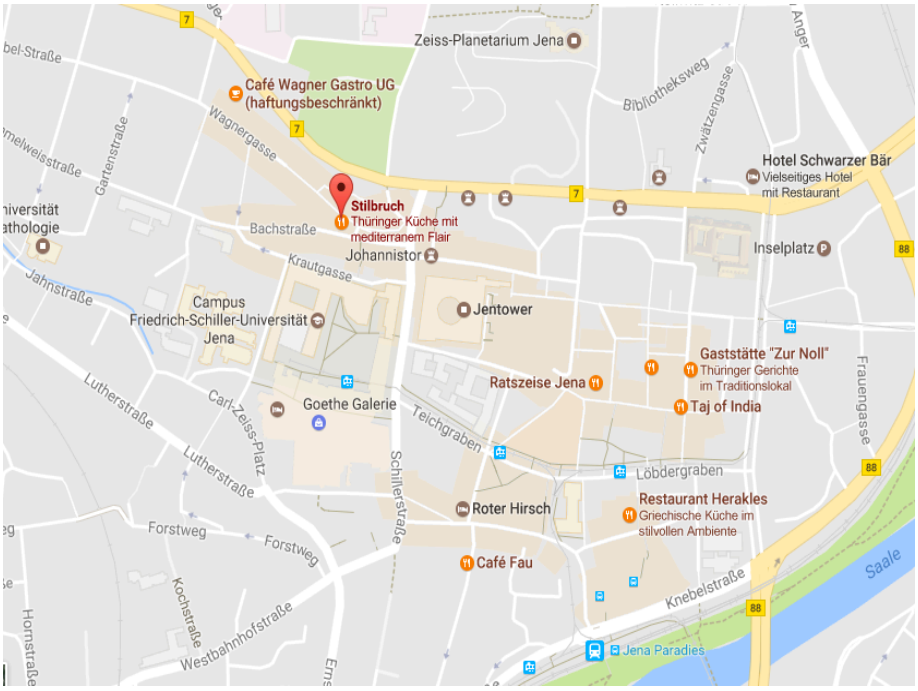
There are several options for **accommodation** in Jena:
https://www.jenatourismus.de/en/book_jena/accommodation_in_jena/358562

The MPI has special prices with the following two hotels:

1. Hotel Steigenberger MAXX: single room (breakfast inclusive) 75 EUR; double room (breakfast inclusive) 95 EUR
https://www.steigenberger.com/en/hotels/all-hotels/germany/jena/maxx-hotel-jena
The Steigenberger MAXX Hotel is in Lobeda (part of the city of Jena in the South) and can be reached by public transport or taxi.

2. Hotel Rasenmühle http://hotel-rasenmuehle.de/: single room (breakfast inclusive) 50 EUR
Hotel Rasenmühle is about 5 min. walking time away from the institute in the paradise park.

There will be an **informal get-together on Monday evening, 10 July, 19h**, at the Restaurant **Stilbruch**, Wagnergasse 1-3, 07743 Jena (tel: +49-364-827171): http://stilbruch-jena.de. Please note that the restaurant will only accept cash (no credit cards).



On **Tuesday evening, 11 July, 19h**, we will meet for dinner at the restaurant **Zur Noll**, Oberlauengasse 19, 07743 Jena (tel. +49-3641 597710, http://zurnoll.de/).
On **Wednesday evening, 12 July, 19h**, we will meet for dinner at the restaurant **Haus im Sack**, Oberlauengasse 14, 07743 Jena (tel: +49-3641 637400, http://www.haus-im-sack.de/)

Lunch and **coffee breaks** will be served at the venue in the library dining room.

If you need a **taxi**, please call City Taxi +49-3641-55660 or Taxigenossenschaft: +49-3641-458888.

If you have any further questions, please don't hesitate to contact us:

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List of abstracts

Invited talks

Lars JOHANSON (Mainz University)

Carry-over code copying and genealogical relatedness

The talk deals with copied linguistic elements at various structural levels and their adaptation, that is copying of elements of a source code into a target code. The focus is on 'carry-over copying' as distinct from 'take-over copying', namely cases in which speakers insert copies of their primary code (L1) into their own variety of a secondary code (L2). Special attention is devoted to cases of code shift preceded by carry-over influence, which lead to results that live on as substrata in surviving successor codes. Although it is often difficult to distinguish carry-over copying from take-over copying in linguistic history and thus to recognize cases of substratum influence, the two kinds of copying differ with respect to the copiability of features, with carry-over copying mostly affecting the sound systems. The question posed is to what extent knowledge about substratum effects in historically attested contact situations can help understand unattested prehistorical situations. Examples are chosen from a number of Turkic languages, where receding local codes have been abandoned to the advantage of intrusive immigrant codes but left substratal traces of carry-over copying. The conclusion is that the effects of copying depend on the degree of affinity of the participant codes, which may be seen as an argument in favor of the genealogical relatedness of the Transeurasian languages.

John PETERSON (Kiel University)

The prehistorical spread of Austro-Asiatic in South Asia

In the terms of Nichols (1992: 16-17), the Indo-Gangetic Plain of northern South Asia is a spread zone, i.e., an area of rapid language spread with little genealogical diversity, shallow language families and the use of a limited number of *lingue franche*, among others. This region is bounded in the north and northwest by the Himalayan range and Hindu Kush, respectively, in the south by the Vindhya and Satpura ranges of central India, and in the southeast by the Chotanagpur Plateau. The last spread throughout this zone – and the only one we have direct

knowledge of – was the historically attested spread of Indo-Aryan from the northwest of the subcontinent eastwards into this region.

The hill tracts bordering this region, as well as the Eastern Ghats further to the southeast, represent "residual zones" in Nichols' (1992) terms, or "accretion zones" in Nichols (1997), with a relatively high genealogical density compared to the rest of the sub-Himalayan subcontinent, considerable structural diversity, deep language families, and only relatively recent *lingue franche*, with local bilingualism and/or multilingualism apparently having long been the norm (cf. Nichols, 1992: 21). It is in these regions that we find the isolate Nihali (central India), the languages of the Munda family (central India, Eastern Ghats and Chotanagpur Plateau), and Dravidian languages such as Kurukh and Malto (near the Chotanagpur Plateau), Gondi (central India) and other smaller Dravidian languages (Eastern Ghats and central hill tracts).

In my talk I will summarize initial research into the distribution of morphosyntactic patterns in the languages of South Asia from three different families, above all in eastern-central South Asia, in a first attempt to unravel the linguistic prehistory of the subcontinent. I will present evidence suggesting that the present-day Munda languages represent residual languages of a previous spread of pre-Munda Austro-Asiatic-speaking ethnic groups throughout the eastern half of the Indo-Gangetic Plain, who presumably switched at an early date to the Indo-Aryan *lingue franche* of that time, resulting in a clear Austro-Asiatic substrate in eastern Indo-Aryan which is still visible to this day.

Nichols, J. 1992. *Linguistic Diversity in Space and Time.* Chicago.

Nichols, J. 1997. Modeling Ancient Population Structures and Movement in Linguistics. *Annual Review of Anthropology* 26: 359-384.

Sarah G. THOMASON (University of Michigan)

On establishing ancient shift-induced interference: Problems and prospects

Proving the existence of ancient language contacts is sometimes easy; proving the existence of ancient contact-induced language change tends to be much more difficult, especially in cases of shift-induced interference. The requisites for establishing that contact-induced change has occurred are in general easiest to fulfill when both the receiving language(s) and the source language(s) are still spoken; determining whether a long-vanished substrate

language has contributed structural features to a proposed receiving language may be impossible. The problems with establishing shift-induced interference are compounded when the proposed source and receiving languages have not been fully documented and/or when their respective histories are poorlyunderstood. My goal in this presentation is to explore these problems and to provide guidelines for deciding when it is reasonable to propose shift-induced interference as an explanation for linguistic innovations.

Other talks

K. Alexander ADELAAR (The University of Melbourne)

Malagasy: The result of language shift and limited borrowing from Bantu

After the Malagasy migrated from South Borneo to East Africa, they assimilated Bantu speakers into their speech community. Their language also borrowed some (mainly lexical) material from the Bantu languages.

Language shift among original Bantu speakers gave rise to a substratum which was responsible for the development of tense and possibly also for the addition of the circumstantial voice to the already existing (but partly eroded) set of non-agent voice categories inherited from Proto Austronesian. The substratum is also manifested in the emergence of a 'covered' locative adverb and in the ways in which the causative and reciprocal prefixes can be combined. In terms of Thomason and Kaufman's (1988) analysis, this would suggest that the Bantu speakers in question constituted a fairly large group and that they had an imperfect knowledge of the Target Language.

The borrowing from Bantu that happened just after the migration was from an unknown source and was limited to concepts with a typically African signature (certain animal names, plant names, food). It should be distinguished from more recent borrowing from Bantu languages such as Comorian and Swahili, which is phonologically more transparent and includes terms for trade objects and Islamic religion, among others.

Several authors (R.A. Blust, O.C. Dahl) recommend Malagasy as a textbook example of an Austronesian language that has kept its Austronesian morphosyntax unchanged, with Bantu influence mostly limited to lexical borrowing. This view is largely based on the observation that Malagasy has maintained most of the original proto Austronesian morphemes; however, this is somewhat misleading, as it focuses only on the form of these

morphemes but not on their function. In fact, the language clearly shows Bantu influence in several grammatical subsystems.

Another author (P. Simon) argues that contact between early Malagasy migrants and North-East Coast Bantu speakers gave rise to a pidgin, which became relexified with vocabulary from early Malagasy and Malayo-Javanic languages until it reached its current stage (modern Malagasy). The scenario he draws is also unsatisfactory as it does not do justice to the fact that Malagasy, although having some Bantu features, is still very Austronesian in structure. The evidence indicates that it is primarily the result of an unbroken evolution from its Austronesian past to the present day.

Marlyse BAPTISTA, Jinho BAIK, Ken KOLLMAN and Alton WORTHINGTON (U Michigan)

Modelling dynamic processes and language shift in creole genesis

In this paper, we present a model of language creation and acquisition that may offer insights into dynamic processes, such as transfer, convergence and language shift, believed to be responsible for the emergence of creole languages. Our primary purpose is to provide a conceptual framework that allows us to examine hypothetical scenarios of creole genesis. We focus on Haitian creole and we motivate our theoretical analyses by examining 18th century Haitian creole diachronic texts that are believed to have been written by different scribes, including literate African slaves and native French speakers. These diachronic texts reflect much variation and mixing of forms from non-standard varieties of French and possibly Fongbe, an African Kwa language assumed to have contributed significantly to the genesis of Haitian creole.

As a point of departure, we closely examine these 18th century diachronic texts and focus on three functional features of Haitian creole: the definite determiner, negation, and plural marking. The rationale for selecting this specific set of features is that they reflect much variation and different degrees of stability, attesting to the various degrees of proficiency that the original scribes had in Haitian creole. More precisely, the determiner is subject to much instability in these old texts, occurring either in a pre-nominal or post-nominal position whereas both negation and plural marking are highly stable, appearing consistently pre-verbally for negation and consistently post-nominally for the plural unbound marker, as it does today in Haitian creole. The unstable variation attested in

these texts suggest that the original scribes, some of whom likely to have been African slaves were subject to pressures to shift or not to shift from their L1 to the L2 patterns.

History plays a crucial role in our model, in the sense that timing and sequence of events, especially importation of slaves in large numbers, affect the dynamics of language acquisition and creation. In a variety of simulations, we experimented with aspects of linguistic interaction between two populations (Fongbe and French). Starting with these two linguistic groups, we altered the dynamics of population change, the pressures towards one language (French), and the degree to which agents in the model were willing or pressured to shift to a new set of linguistic features.

The results from the simulations in our model suggest that the creation of creole languages requires a set of conditions, all of which must be balanced. First, individual speakers must be willing to try and shift to new features (in our case, morphosyntactic features), but may still wish to retain the language they already know. In the simulation, this reflects cases where inertia is neither too high (nobody changes) or too low (generating chaos as agents randomly search for new features to shift to). Second, the rate of demographic transitions matters a great deal in our model. If one group dominates early on and the rate of change is too slow, the earlier language will remain and no shift occurs. Third, some pressure towards one language may have the effect one would expect, meaning increasing the use of that language and a shift to L2 (French patterns) may occur. A balance between these three conditions may account for the variation and (in)stability observable in the Haitian creole 18th century texts and may contribute to the emergence of creole languages.

Anna BERGE (University of Alaska Fairbanks)

Late prehistoric language contact effects in Unangam Tunuu (Aleut)

Unangam Tunuu (Aleut) is member of the Eskimo-Aleut (EA) language family; its extreme divergence has long been thought to be a result of its relative isolation over an extended period of time (Bergsland 1986, Krauss 1990). Recent work in archaeology and genetics, however, is suggestive of long-term cultural contact with both neighboring Eskimo and non-Eskimo groups. The linguistic evidence for contact is not yet clearly established, although there is strongly circumstantial evidence of contact from both lexical studies of the

distribution of cognates and borrowings in different semantic domains (Berge 2016a, submitted; Berge and Holton 2015) and grammatical studies of innovations in Unangam Tunuu shared with neighboring non-EA peoples (Leer 1991, Fortescue 1998, Berge 2016b).

Language contact effects are apparent in both the lexicon and the grammar, reflecting contact primarily with the Alutiiq Eskimo and the Dena'ina Athabaskans. Lexically, there are distributional differences in the number of cognates and borrowings in certain semantic domains between Unangam Tunuu and Eskimo; and Unangam Tunuu, but not Eskimo, has features more characteristic of Athabaskan languages, such as multiple synonyms for basic terms, multiple phonological variants for many words, and signs of a once-active replacement strategy for nouns. Grammatically, Unangam Tunuu has EA structure: basic word formation, nominal and verbal inflection, verbal mood, deictic terms, particles, etc. appear to reconstruct to EA; however, there have been substantial changes in this grammatical system. Some features of Unangax̂ grammar look like importations from Yupik Eskimo grammar; the deictic system, for example, likes like a Yupik deictic system that has been reorganized and paradigmatically leveled. On the other hand, many features of Unangax̂ grammar are found in neighboring non-EA languages, such as auxiliary verb formations, widespread use of positional nouns, stem-stem compounding (Berge 2016b).

These two contact experiences occurred during the same time period, from about 1000-300 BP; however, they had vastly different effects. The arrival of the Alutiiq Eskimos at the easternmost edge of Unangax̂-speaking territory may have resulted in a shift from Unangam Tunuu to Alutiiq, pushing the Unangan further east; but in Unangam Tunuu, the effects of contact were relatively superficial, perhaps limited to certain types of borrowings suggestive of an influx of Alutiiq men and most probably as a result of warfare caused by economic or ecological stress (Berge, submitted). Around the same time, the whole Pacific Coast region shows a radical shift in social complexity, involving social stratification, warfare motivated by the need for social status and slaves (Misarti and Maschner 2015). Slaves, mostly women or children, were often from non-Unangan speaking communities such as the newly arrived Alutiit and Dena'ina. This type of contact shows substratum influences from non-Unangan languages, as a result of imperfect learning during language shift. This explains the few numbers of attested borrowings from other languages, but the extensive borrowing of grammatical structures.

In this paper, I discuss the non-linguistic evidence for late prehistoric linguistic contact in Unangam Tunuu, the linguistic evidence for each type of contact discussed above, the

methods used to determine linguistic contact as opposed to direct inheritance, and the implications for the study of EA and the identification of substratum effects.

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Koen BOSTOEN & Hilde GUNNINK (Ghent University)

The impact of autochthonous languages on Bantu language variation: A comparative view on Southern and Central Africa

The Bantu Expansion is the most important linguistic, cultural and demographic process in Late Holocene Africa. It has sparked intense debate across the disciplines and far beyond Africanist circles. Certain archaeologists and historians have severely criticized human migration as an explanatory model for the Bantu Expansion (Lwanga-Lunyiigo 1976; Gramly 1978; Schepartz 1988; Vansina 1995; Robertson & Bradley 2000). However, thanks to recent advances in evolutionary genetics, we know that this dispersal was not just a matter of contact-induced diffusion of languages and technology. It was a major demic diffusion that can be considered as one of the most dramatic demographic events in human history (Li *et al.* 2014). Especially the low diversity of Y-chromosomal haplogroups in Bantu speaking populations is a strong indication in favour of rapid migration (Pakendorf *et al.* 2011). It is in strong contrast with the higher mtDNA diversity within the maternal gene pool of Bantu speech communities, which points towards intensive interactions with autochthonous hunter-gatherers both in Central and Southern Africa through sex-biased sociocultural practices, such as patrilocality and polygyny. Ancestral Bantu-speaking societies intermarried with indigenous groups and this exogamy especially involved women from local non-Bantu speaking groups (Destro-Bisol *et al.* 2004; Wood *et al.* 2005; Quintana-Murci *et al.* 2008; Verdu *et al.* 2013; Patin *et al.* 2014). In Southern Africa, the outcomes of Bantu-Khoisan language contact have been examined (e.g. Herbert 2002; Bostoen & Sands 2012; Gunnink *et al.* 2015), but the impact of prehistoric interaction with non-Bantu speakers on Bantu-internal variation in Central Africa is understudied.

In this paper, we focus on two areas where the autochthonous, pre-Bantu populations are at least superficially known: (1) Central Africa, where the pre-Bantu populations are thought to be the ancestors of modern hunter-gatherers aka 'Pygmies', and (2) Southern Africa, where the pre-Bantu population consisted of various hunter-gatherer and pastoralist groups subsumed under the label 'Khoisan'. We first discuss the putative pre-Bantu (linguistic) landscape of Southern Africa, the interactions between native Khoisan speakers and incoming Bantu speakers, and the influence that this contact had on the Bantu languages involved. We then contrast the southern African situation with the situation in

Central Africa before the advent of Bantu speakers. We show that the Southern African situation is much better known, mainly because the much more shallow time depth of the contact between Bantu-speaking newcomers and autochthonous populations has allowed various autochthonous groups to persist until today, often maintaining a language that is markedly different from that of their Bantu-speaking neighbours. This contrasts with the Central African case, where the early arrival of the Bantu Expansion caused a much earlier contact with forest foragers. No hunter-gatherer groups currently speak a language that is unrelated to, or even substantially different from, a language spoken by a 'non-Pygmy' group. Despite the early interest for the 'Pygmy' substrate issue, still very little is known on the linguistic interactions between indigenous forest foragers and immigrating Bantu speakers. However, the better known Southern African case provides us with useful insights to be applied and with better-formulated hypotheses to be tested in order to advance our understanding of prehistoric language contact in Central Africa.

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David GIL (Max Planck Institute for the Science of Human History, Jena)

The Austronesianization of Indonesia

Gil (2015) demonstrates the existence of a *Mekong-Mamberamo* linguistic area consisting of Mainland Southeast Asia, the Indonesian archipelago and western New Guinea, and characterized by the following 17 properties:

(1) *17 Mekong-Mamberamo Properties*

1. passing gesture
2. repeated dental clicks expressing amazement
3. conventionalized greeting with 'where'
4. 'eye day' > 'sun' lexicalization
5. d/t place-of-articulation asymmetry
6. numeral classifiers
7. verby adjectives
8. basic SVO word order
9. iamitive perfects
10. 'give' causatives
11. low differentiation of adnominal attributive constructions
12. weakly developed grammatical voice
13. isolating word structure
14. short words
15. low grammatical-morpheme density
16. optional thematic-role flagging
17. optional TAM marking

Genealogically, while the languages Mainland Southeast Asia and western New Guinea belong to a wide variety of different families, those in the Indonesian archipelago are overwhelmingly Austronesian. However, whereas the Austronesian languages of Indonesia generally display a Mekong-Mamberamo profile, those of Taiwan and the Philippines typically do not. Given that the Austronesian languages originated in Taiwan before spreading south, it seems clear that upon arrival in the Indonesian archipelago the incoming Austronesian languages must have taken upon the Mekong-Mamberamo properties through contact with the non-Austronesian languages, now long extinct, that they encountered in the region.

What is less clear, however, is what the specific mechanisms of contact might have been that led to the Austronesian languages of the Indonesian archipelago exhibiting their contemporary linguistic profile. Of the 17 Mekong-Mamberamo properties in (1), no's 11-17 represent a state of affairs involving lesser complexity than their non-Mekong-Mamberamo counterparts. With respect to these 7 properties, then, the Austronesian languages of the Indonesian archipelago could in principle represent the outcome of a process of contact-

induced simplification; however, such an process cannot account for the remaining 10 properties, no's 1-10. In general, two competing models of language contact and convergence have been proposed that might underlie the kind of language change giving rise to the Mekong-Mamberamo nature of the Austronesian languages of the Indonesian archipelago: *metatypy* and *relexification*. Most likely, different scenarios played out in different locations, as indeed they continue to do up to the present, wherever Austronesian languages still come into contact with non-Austronesian ones.

Russell GRAY, Mary WALWORTH, Adam POWELL & Annemarie VERKERK (MPI-SHH, Jena)

Waves of history and layers of evidence: what can the combination of linguistics and genetics tell us about the nature, timing and impact of Papuan contact on the Austronesian languages of Vanuatu?

The Austronesian languages of Vanuatu are notable for both their sheer number and their marked deviation from most other Oceanic languages. Their aberrant features include non-decimal numeral systems, rounded labial phonemes, bilabial trills, dual exclusion of *p* and *c* phonemes and serial verb constructions. Blust (2008) has argued that the presence of these aberrant linguistic features can only be explained by a wave of Papuan expansion into Remote Oceania that quickly followed the initial Austronesian expansion [3100 BP]. In this paper we will outline what a combination of genetic and phylolinguistic analyses can tell us about the nature, timing and impact of Papuan contact on the diversification of Austronesian languages in Vanuatu.

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Tom GÜLDEMANN (MPI-SHH, Jena & HU Berlin)

Toward a more systematic investigation of substrates: the case of Afrabia

(Putative) cases of substrate have so far been addressed on a case-by-case basis according to the degree of historical linguistic knowledge about certain languages and lineages. It thus remains difficult on the one hand to investigate substrates from a comparative theoretical perspective and on the other hand to ascertain specific geographical areas with respect to their history of linguistic contact. The paper presents a first attempt of a survey of potential cases of substrate in a larger region, namely Africa, based on a new macro-areal profiling as well as a modified genealogical scheme of the continent

Jeffrey HEATH (University of Michigan)

Two cruxes of W/NW African linguistic prehistory (Songhay, Moroccan Arabic)

Two difficult problems in African linguistic prehistory are the formation of the Songhay languages and that of the oldest NW African Arabic varieties. In both cases, what probably happened was rapid language shift, the substratum leaving its signature in the form of heavy prosodic rewiring, some morphosyntactic calquing, some morphological simplification, one or two grammatical morphemes (generally filling gaps created by calquing), and (when the dust settled) little or no basic lexicon.

The origins of North African Arabic (c. 700 AD) are obscured by the 11th-13th C. wave of Arab beduin who swept over the Maghreb from Libya to Mauritania—sparing only northern (and Jewish) Morocco. Recent reassessment of archaic Moroccan Arabic (MA) dialects has shed light on the formation of MA during the first 150 years of Arab occupation, by a) demonstrating the archaic status and Latinate source of D-possessives (di, dyal, d-), which filled a gap as MA moved from morphological to periphrastic morphosyntax, and b) showing that archaic MA neutralized vowel length as Late Latin already had—a dysfunctional, morphology-disrupting merger found also in Spanish Arabic but nowhere else in the Arab

world. One can now envisage an archaic Arabic, formed by offpsring of Arabized Berber troops in the Roman Moroccan towns of Tangier, Salé, and Volubilis, spreading shortly thereafter with Arab-Berber invading forces into southern Andalus (Muslim Spain), and later exported to Andalusi merchant settlements in coastal Algeria, all of this centuries before the beduin invasions and the main influx from the Arab east into the wealthy cities of Andalus. Yet not a single Latinate lexeme in MA can be securely dated to the formative period: the most promising candidates, qbṭal 'elbow' (cf. modern Spanish codo) and diminutives masculine -allu and feminine -alla, have narrow dialectal distributions suggesting that they were spread from Andalus by merchants frequenting the trans-Saharan caravan routes that emerged later.

This and similar cases of language shift help us understand the origins of the Songhay languages, whose heartland in Mali/Niger includes the capitals of the late medieval Songhay Empire (Gao, Hombori) and major links in the trans-Saharan routes (Djenne, Timbuktu). Proto-Songhay was very close structurally to Mande languages such as Bambara, including heavy use of VP serialization for same-subject clause conjunction, and typological rarities like S-infl-O-V-X order and bidirectional case-marking (when the "-infl" slot is zero). Yet Songhay vocabulary is non-Mande (and non-Niger-Congo). If anything (we're not sure yet), Songhay may be genetically a western outlier of Nilo-Saharan. The morphosyntax therefore points to calquing from a Mande substratum to an unknown superstratum, whose phonology and tone system may also have been Mande-ized (we can't be sure). While no basic Mande lexicon survived the shift, the Songhay bidirectional case-marker *na and VP-serialization linker *ka have Mande matches, and may have survived the shift by filling morphemic gaps as Pre-Proto-Songhay morphosyntax was Mande-ized.

The signature of abrupt shift (over a few generations) is to be found in phonology (including rhythms and prosody) and to some extent in core morphosyntax (with or without a few telltale borrowed morphemes), rather than in core vocabulary.

Rodrigo HERNÁIZ (Philipps University Marburg & University of Barcelona)

From prehistorical language convergence to (early) historical language shift: The Sumero-Akkadian contact scenario

A number of lexical, phonological and grammatical features of Akkadian, without a clear parallel in other Semitic languages, have been assumed to be the direct result of an early convergence with - genetically different, but geographically contiguous- Sumerian, in what has been described as a linguistic (micro)area (Streck 1998, Edzard 2003, Goldammer 2012). Widely regarded as contact induced features are: SOV word order, venitive verbal marker, verbal mood constructions, postponed adverbial case particles and loss of pharyngeal and glottal phonemes. However, the process and type of contact has not been sufficiently explored, although references to Sumerian substrate influence on Akkadian have been pointed out (e.g. Zólyomi 2012, p.397 for the loss of Akkadian 'guturals').

To what extent can different types of evidence (linguistic, archaeological, historical) inform us about the nature of the ancient Sumero-Akkadian language contact process? Can we determine the effects from borrowing or substratum interference?

The Sumero-Akkadian contact is set in a long-standing and complex scenario that involves two well differentiated periods according to the type of information we can retrieve for our research. The first one covers an unspecific time-spam preceding the bulk of written documents in Akkadian, (hence prehistorical). The second one, with textual records both in Akkadian and Sumerian, spreads over a period of five hundred years, by the end of which, Sumerian had been replaced by Akkadian as a spoken language.

In my talk, I will examine the evidence for contact-induced prehistorical change in Akkadian, and the sociolinguistic, demographic and textual observations from the following textual record. Despite important gaps in the documentation, some archives illustrate punctual moments in the progressive southward diffusion of Akkadian. Finally, I will look at the effects of the later language shift in the well documented subsequent stages of Akkadian.

The most unequivocal elements for an early contact-induced language change are the SOV order and many loanwords and calques (mainly for material, cultural or religious terms, but not for basic vocabulary), which do not clearly demonstrate a substratum imposition. On the other hand, the later documented language shift did not leave long-standing evidence from substratum influence, apart from isolated lexical Sumerian terms found exclusively in

documents from traditionally Sumerian speaking areas. However, some late structural changes in Akkadian (loss of dual number, simplification of the relative pronoun system, phonological erosion of case marker word-final consonant) can be put in relation to the language shift and the arrival of new populations from other Semitic areas.

In an absence of textual and historical evidence, we could have seen a different picture in which Akkadian simply replaced Sumerian in Southern Mesopotamia, assuming substratum interference as the principal cause for a number of Akkadian features. Historical, demographical, and sociolinguistic data, however, prove to be decisive to account for long-standing contact relationships between languages in complex societies.

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Eugen HILL (University of Cologne)

Language shift, substratum interference and the historical phonology of Slavonic

The talk will investigate to what extent the substratum interference can shape the phonology of a language. In particular, it will address the following two points. First, I will demonstrate that substratum interference sometimes provides a natural explanation for otherwise unexpected asymmetries in the phonological evolution (cf. most recently Schrijver 2014). Second, I will argue that interference with multiple substrata may lead to developments hardly explainable by any other theory of sound change.

In pursuing these two goals, I will use the data of Slavonic languages which constitute a subgroup within the so-called Balto-Slavonic branch of Indo-European. The talk will address the following well-known problem: »*It has always been a riddle how it came about that the Slavic and Baltic languages, while sufficiently similar to suggest a common origin ("Proto-Balto-Slavic"), and developing side by side for thousands of years under natural and technological conditions that must have been fairly similar, came to be so different*« (Andersen 2003: 71).

In phonology, this dissimilarity between Baltic and Slavonic is due to numerous innovations on the side of the latter. These innovations have been often explained by reference to the well documented migrations of the Slavonic tribes between the 5th and the 9th centuries AD. It has been assumed that these migrations exposed Slavonic to influence by numerous languages of different affiliations. However, no consensus has been reached in identifying these substrata and their particular contributions to the Slavonic phonology (cf. Shevelov 1964, Galton 1994, most recently Andersen 2003, 2009 on the hypothetical pre-Slavonic Indo-European of Eastern Europe).

In the first part of my talk I will suggest that several peculiarities in the Slavonic historical phonology may be explained by a substratum influence of Germanic. Contacts between speakers of Slavonic and Germanic are documented for the 5th and 6th c. AD both by Greek and Roman historians and the numerous Germanic lexical loans in Proto-Slavonic (cf. on the latter recently Pronk-Tiethoff 2013). I will argue that several asymmetries of the Slavonic sound evolution can be plausibly attributed partly to a West Germanic and partly to an East Germanic substrata in Slavonic.

In particular, the unexpected palatalisation of Proto-Sl *tt, dd by a following *i (such as in pre-Proto-Sl *naktīs 'nights' [cf. Lith *naktys*, Latv *naktis*] > Proto-Sl *nott^{j}i> OCS *nošti*, Pol *noci*, Ru *noči*) may be understood as a substitution of *tt^{j}, *dd^{j} for *tt, *dd by speakers of the

5th or 6th c. West Germanic. Similarly, the mysterious asymmetric operation of the so-called 'metathesis of liquids' in the Slavonic language Polabian (Proto-Sl *gordŭ > Plb. *gord* 'fort' but Proto-Sl *golsŭ > Plb *glås* 'voice') can be attributed to East Germanic (where Proto-Sl *orC had a phonetic match but no counterpart of Proto-Sl *olC existed).

The second part of the talk will address the famous Slavonic *Open Syllable Conspiracy* which embraced such different sound changes as the degemination (Proto-Gmc *kattaz > OCS *kotŭ*, Pol *kót*, Ru *kot* 'cat'), the loss of tautosyllabic nasals (pre-Proto-Sl *rankā [cf. Lit *ranka*] > OCS *rąka*, Pol *ręka*, Ru *ruka* 'hand'), various metatheses (pre-Proto-Sl *galvā [cf. Lith. *galva*] > OCS *glava*, Pol *głowa* 'head'), anaptyxes (> Ru *golova*) etc. This *Conspiracy* has been repeatedly attributed to a substratum influence, too. However, which contact language of Slavonic may be responsible for this influence, remains unclear.

I will argue that such *Conspiracies* can emerge as a by-product of contact induced sound changes not striving for the creation of features characteristic for the *Conspiracy* in question. An *Open Syllable Conspiracy* may be expected in a situation where a language interferes with many different languages within a relatively short period of time. Most languages are subject to restrictions against certain clusters (no *dl* in Latin, no *kt* in Germanic etc.). In case of intense contact of a language initially possessing such clusters, such as Proto-Slavonic, with different languages prohibiting them, sound changes resulting epiphenomenally in open syllables are the most natural outcome. Superficially, the data may suggest a targeted, purposeful development toward a system with a strong preference for open syllables. Thus, the Slavonic *Open Syllable Conspiracy* appears simply as a function of the well-documented rapid distribution of Slavonic out of a compact centre over a huge territory during the 5th to 9th c. AD.

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Jarich HOEKSTRA (Christian-Albrechts-Universität, Kiel)

On the fringe between West and North Germanic: The Danish substrate in North Frisian

In my talk I will consider the possibilities and problems of reconstructing language contact in an older language phase only indirectly accessible by later sources. As a case in point I will discuss the North Frisian-Danish language contact that must have taken place in the early and late Middle Ages. Modern North Frisian, which is only sparsely recorded from ca. 1600 onward, shows a considerable amount of Danish transfer. When comparing North Frisian to the other two branches of Frisian, East and West Frisian, its North Germanic character is in fact its most distinguishing trait. There are reasons to believe that North Frisian was heavily "north-germanicized", after Frisians settled down on the islands and the coast of present North Frisia in the West of the German federal country of Schleswig-Holstein in the 8th and 11th century, and was then, from the late Middle Ages onward, partly drawn back into the West Germanic camp by the influence of Low and, more recently, High German. The Frisians probably hit upon larger groups of Danish-speakers, indigenous inhabitants or settlers like themselves, who assimilated to them by shifting from Danish to Frisian. Since historical and direct linguistic evidence for this language shift is lacking, the question is: Can the modern language give us any clues on the nature of the language contact?

If the Danish layer in North Frisian is, at least partly, the result of a Danish-Frisian language shift, then transfer in the Danish-Frisian language contact situation must have been a case of *source language agentivity* in the sense of Van Coetsem (1988, 2000), i.e. Danish speakers have imposed elements from their own language, Danish, on the the language they were learning, Frisian. *Source language agentivity* normally involves the transfer of stable elements of the source language (grammatical structures, semantic distributions, articulation patterns) to the recipient language. So, ideally, we would like to find in modern North Frisian not only unstable elements from Danish (loan words), but also, for example, a syntactic substrate. Is it possible to trace such a Danish substrate from the Middle Ages in the present language, after it having been heavily influenced by Low and High German in the ages that followed? Can language contact theory help to make up for the scarce, indirect evidence?

In my talk I will discuss these questions by having a look at the adpositional system of North Frisian, particularly its directional particles and its verb particles. Unlike the other Mainland West Germanic languages North Frisian has directional particles preceding the

prepositional phrase, e.g. *ap üüb't taag* 'upon the roof' (Ebert 1980, Hoekstra 2006). North Frisian differs also from the Mainland West Germanic languages in its verb particle inventory. It possesses, for example, a verb particle FOON- (corresponding to the preposition FOON, German *von*, Dutch *van*, etc. 'of') and two semantically differentiated verb particles corresponding to German *auf*-, Dutch *op*- etc. 'on'. I will argue that these phenomena receive a satisfactory explanation, if one assumes that they result from a Danish-Frisian language shift in the Middle Ages.

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Dmitry IDIATOV & Mark VAN DE VELDE (LLACAN – CNRS, Paris)

The lexical frequency of labial-velar stops as a window on the linguistic prehistory of northern sub-Saharan Africa

Cross-linguistically, labial-velar stops are rather rare, but they are known to be common in the phonological inventories of the languages of northern sub-Saharan Africa (NSSA) (Cahill 2008, Maddieson 2011). For this reason, labial-velar stops are usually considered to be a distinctive areal feature of NSSA (Clements & Rialland 2008, Güldemann 2008). At the same time, a cursory examination of the descriptions of the languages that have labial-velar stops quickly reveals that they can vary significantly with respect to the status of these consonants in their phonologies and lexicons. This paper presents the results of a survey of the lexical frequency of labial-velar stops in 336 languages of NSSA and discusses their implications for reconstruction of the history of the area and its languages. To the best of our knowledge, our survey is the first example of such a large-scale survey of the lexical frequency of an areal sound

pattern. It was made possible thanks to the recently created lexical database source RefLex (www.reflex.cnrs.fr).

We statistically analyzed the spatial patterns in the distribution of lexical frequencies of labial-velar stops within NSSA and the patterns of distribution of labial-velar stops within the lexicon. The spatial analysis of the data using Generalized Additive Modeling shows that there are three major areas with high lexical frequency of labial-velar stops within NSSA. The first two areas roughly correspond to coastal West Africa with the divide between them centered around the Dahomey forest gap. The third area corresponds to CAR & northern DRC and is separated from the closest West African area by a major discontinuity in Cameroon and northeastern Nigeria. When considered against the geography of NSSA, this spatial distribution suggests that the two areas are hotbeds not so much for spread but for retention of labial-velar stops, with the hotbeds arguably correlating with higher incidence of language shift events (as opposed to language contact) as the principal mechanism for the transfer of labial-velars. The data clearly imply that labial-velar stops and a number of other correlated phonetic and phonological features should not be reconstructed for Proto Niger-Congo or any of its major branches. Furthermore, the observed distribution suggests a more northern localization of the homelands of most major branches of Niger-Congo in grassland and savanna ecoregions. Finally, the data are strongly indicative of a late and relatively quick passage of Bantoid through the areas of high lexical frequency of labial-velar stops, supporting the "East-out-of-West" hypothesis of the Eastern Bantu emergence with the Eastern Bantu break-off point somewhere south of the rainforest.

Marwan KILANI (University of Oxford)

Language interferences in Egyptian: A semantic diachronic perspective

Ancient Egyptian is one of the oldest attested languages, and its history and development can be followed for over 4 millennia. During this long period of time, Egyptian was involved in multiple types of linguistic interactions. Egyptian is a Hamito-Semitic language, but foreign words, either borrowed or from substrates, are recognizable even in its Early Bronze Age earliest written attestations. Later, and especially during the Late Bronze Age, Egyptian became the language of an empire dominating over the Levantine coast and its non-Egyptian speakers. In this period, hundreds of loanwords from West-Semitic languages started to

appear in Egyptian. About a millennium later, Alexander conquered Egypt, and the Romans followed three centuries later. Since then, the influence of Greek and Latin shaped the language, and is particularly evident in Coptic, as the Egyptian language is called in its later phase. Finally, when Arabs conquered Egypt in the 7th century CE, Egyptian/Coptic started to borrow words from Arabic, and at the same time became a substrate for Egyptian Arabic.

Thanks to the Egyptian/Coptic partially phonetic scripts and their rich textual tradition, all these interactions can be studied through abundant contemporary textual sources. This makes of Egyptian/Coptic a unique case study not only to investigate how different forms of interactions affect a given language and what kind of traces they could leave in it, but also to compare similar phenomena affecting the same language in different pre-modern pre-colonial periods, including relatively early periods such as the Bronze Age. Moreover, the long tradition of Egyptological studies provide a wealth of secondary scholarship on the language that can be profitably data-mined to explore the socio-linguistic dynamics underlying these phenomena.

Various approaches can be envisaged to explore multiple aspects of these interactions. My paper will focus on a semantic perspective, and it will aim at understanding which semantic fields and classes are affected by different interactions in different historical periods, and if any pattern, tendency, or significant discrepancy can be identified.

The cases I will explore are the following:

– West-Semitic loanwords into Egyptian = late Bronze Age, loanwords from politically subordinate languages (West-Semitic) into a politically dominant language (Egyptian)

– Greek loanwords into Egyptian/Coptic = Late Iron Age, loanwords from a culturally dominant language (Greek) into a culturally subordinate language (Egyptian/Coptic)

– Arabic loanwords into Coptic = Middle Age, loanwords from a culturally dominant language (Arabic) into a culturally subordinate language (Coptic)

– Coptic loanwords into Egyptian-Arabic = Middle Age, loanwords from a substrate/ culturally subordinate language (Coptic) into a superstrate/culturally dominant language (Egyptian Arabic).

My study will be primarily quantitative. In particular, I will look at which semantic fields and classes the loanwords of the different cases belong to and in which percentage, in order to understand if, in which way and to what extent different semantic fields are affected by different interactions. The resulting data will then be compared with similar statistical analyses performed by other scholars on other corpora of borrowed words (such as the various

cases presented in Haspelmath and Tadmor "Loanwords in the World's Languages"), to see if the Egyptian cases do fit into any general pattern, and if the evidence provided by an ancient language like Egyptian is meaningfully comparable to that provided by more recent case studies. The resulting data will then be quickly discussed within the historical periods and the sociolinguistic contexts in which the interactions took place.

Martin KÜMMEL (Friedrich Schiller University Jena)

Substrates and the development of Indo-Iranian

The Indo-Iranian (II) branch of Indo-European (IE) is one of the earliest attested branches and covered a wide territory in antiquity. Its early records, especially Sanskrit (Old Indo-Aryan), were of utmost importance for the birth of comparative IE linguistics 200 years ago, and the earliest reconstructions of Proto-Indo-European still looked very similar to Sanskrit. However, research has slowly moved away from the Sanskrit example, and the current picture of PIE as we see it looks rather different in many respects – also due to the discovery of two completely new branches, Anatolian and Tocharian some 100 years ago. The consequence of this is that Proto-Indo-Iranian (PII) now also looks rather different from PIE, and this raises the question, why it changed in these very characteristic ways. To mention only two characteristic phonological features, II shows two salient mergers: 1) all non-high vowels merged to **a* and **ā*, 2) **l* and **r* merged to **r* (at least in most dialects). These changes have few parallels (if any) elsewhere in IE and may be evidence for substratum influence on phonology. On the other hand, it has already been noticed that there is at least one layer of vocabulary (both in PII and later) suspicious of foreign origin, ascribed to a Central Asian „substratum" (= contact language) by LUBOTSKY 2001. According to the typology of THOMASON & KAUFMAN 1988, loanwords alone would rather point to superstratal or adstratal influence, not to a real substrate. Thus we may ask whether the language of these loanwords can also be the one behind the phonological changes we can observe, and possibly other changes, which then might speak for a real substratum, i.e., language shift, or if we have to assume two (or more) different contact languages.

To answer this question, also the evidence presented by the numerous II loans into Uralic has to be taken into account, since it has been claimed that these reflect different stages

of II (an especially elaborate attempt to evaluate this is that of KATZ 2003, but it was heavily criticized from within Uralic linguistics, see Aikio & Kallio 2005). Due to many recent innovations in Uralic linguistics, this evidence must be reevaluated in any case.

Since Lubotsky 2001 has argued for a continued contact with the same „substratum" of the Indo-Aryan subbranch, it will also be investigated whether this can be supported by non-lexical charateristics of this subbranch or not.

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Susanne Maria MICHAELIS (Leipzig University & MPI-SHH, Jena)

Explaining the features of creole languages: Language shift and the division of labor between substrates and lexifiers

Unlike prehistoric language contact situations, we have quite a good sense of what the contact situations were like during the European colonial expansion between the 16th and 19th centuries, which eventually gave rise to the various pidgin and creole languages. The findings from these recent language shift situations may shed light onto other shift situations that took place in the more distant past.

In this talk I start out from the observation that creole languages differ in a great number of grammatical features from one another. Some creoles have obligatory subject pronouns, others do not; some creoles mark the possessor in noun phrases, others do not; some creoles have double-object constructions, others have indirect-object constructions, and so on. But when rigorously comparing a large number of these contact languages with each other (as in the *Atlas of Pidgin and Creole Language Structures*, apics-online.info), a striking picture emerges: the structural variation is far from random, instead we notice that when it comes to the inheritance of grammatical features, there is a clear division of labor between the contributing languages, the substrate languages and the lexifier languages. Lexifier languages pass on the main word order patterns (besides the bulk of the lexicon), whereas substrate

languages pass on grammatical features relating to valency and tense, aspect, and mood (TAM) categories (and phonological patterns). I propose that this is because in the process of language shift, the creole creators systematically imitate valency patterns and TAM distinctions from their main languages into the nascent creoles, whereas they adopt major word order patterns from the lexifier languages. As creole languages arise in sociolinguistic contexts with many second-language speakers, extra clarity of the intended meaning becomes essential. Therefore, creoles show an extremely rich array of innovative refunctionalization and grammaticalization of erstwhile lexifier material to express the various abstract meanings, either by imposing substrate patterns or adopting lexifier patterns (e.g. English *one* > indefinite article *wan* in Sranan; French *avec* 'with' > dative marker *ek* in Mauritian Creole; Portuguese *já* 'already' > perfective marker *dja* in Batavia Creole).

Martine ROBBEETS, Nataliia NESHCHERET, Chuanchao WANG, Choongwon JEONG & Tao LI (MPI-SHH, Jena)

A Pacific North East Coast substratum in the Transeurasian languages?

The common origin of the Transeurasian languages, i.e. the Japonic, Koreanic, Tungusic, Mongolic, and Turkic is a controversial issue. Robbeets (2005, 2015) showed that even if the majority of etymologies proposed in support of a genealogical relationship between the Transeurasian languages are questionable, there is nonetheless a core of reliable lexical and morphological evidence that makes it possible to classify Transeurasian as a valid genealogical grouping. Robbeets (2017) argued that the speakers of proto-Transeurasian, situated in the West-Liao River region were familiar with millet cultivation and that eastward linguistic dispersal of the Tungusic, Koreanic and Japanic languages towards the Pacific Coast was driven by agriculture. Zooming in on the languages of the North Pacific Coast of Eurasia, Bickel et al. (2016) observed that Ainu and Nivkh systematically deviate from the structurally more homogeneous languages in Eurasia. Therefore, they attributed these languages to earlier structural types whose lineages became isolated before the large-scale language spreads in Eurasia.

It is against this background that our research question takes shape: Is there evidence for language shift, whereby some of the ancestral speakers of Ainu and Nivkh abandoned their native language in favor of a Transeurasian target language such as proto-Tungusic, proto-

Koreanic and/or proto-Japonic? In other words, is it possible to establish substratum interference in proto-Tungusic, proto-Koreanic and/or proto-Japonic under influence of the ancestral states of Ainu and Nivkh?

Paying attention to the methodology proposed in Thomason 2009, we will answer this research question, taking three basic steps: First, we will explore the interdisciplinary context; second, we will identify common features between the target and substratum languages and; third, we will distinguish between adstratum and substratum influence.

First, we will review the archaeological and genetic evidence for a Neolithic shift involving an agricultural transition and population admixture in the Russian Far East, the Korean Peninsula and the Japanese Islands (Stevens and Fuller forthc., Jinam et al. 2012, Wang et al. 2016, Jeong et al. 2016).

Next, we will identify shared linguistic features between the descendants of the presumed substratum language (i.e. Ainu, Nivk) and those of the target language (i.e. Korean, Japonic and Tungusic languages). These can be lexical, phonological, morphological, syntactic, semantic, or discourse features. We will concentrate on shared features in which the target language deviates from the standard Transeurasian type and search evidence for an actual loss of a prototypical Transeurasian features under influence of prototypical substratum features. For instance, proto-Japonic leaves a trace of an original Transeurasian voicing distinction for stops in its pitch accent distinctions. The loss of voicing distinction and its replacement by two distinctive tones is reminiscent of the situation in Ainu.

Finally, we will argue that the shared features under discussion can be easier explained by language shift than by borrowing. For this purpose we will rely on the observations made by Thomason and Kaufman (1988) about the linguistic results of language contact. If proto-Tungusic, proto-Koreanic and proto-Japonic can be shown to share structural features with Ainu and Nivkh in absence of prehistorical loanwords, a shift scenario will be the more parsimoneous explanation.

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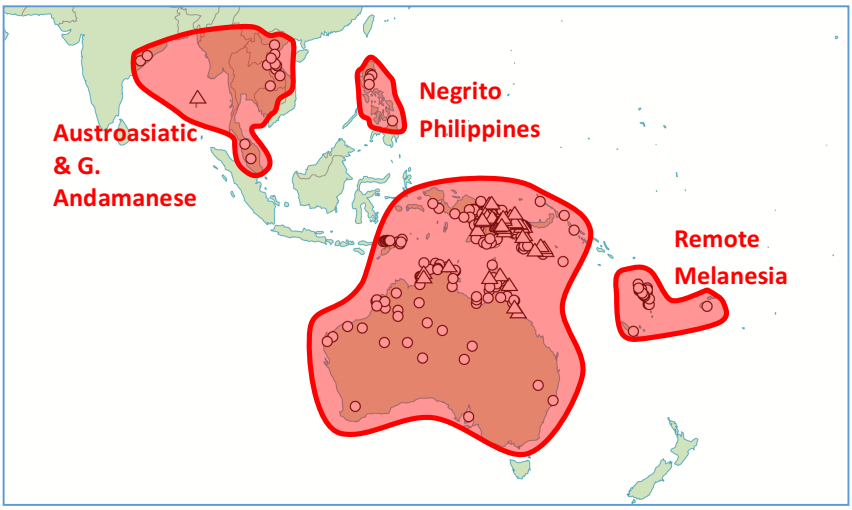
Antoinette SCHAPPER (KITLV Leiden)

Substratum inference through lexical patterns: A case study from Sunda-Sahul

The possibility of using lexico-semantic patterns to track deep time connections has been put forward (Urban 2009, Schapper et al. 2016), but is still awaiting systematic research. In this paper I investigate this possibility by means of a typological study of lexico-semantic patterns in the macro-linguistic area encompassing the region spanning from the ancient continent of Sahul (Australia and New Guinea) to that of Sunda (South east Asia and western Indonesia).

One pattern that indicates the usefulness of lexico-semantic features in detecting substrata in the Sunda-Sahul is the colexification of 'fire' and 'firewood'. This shows a striking distribution across Sunda and Sahul that is in need of explanation (See Map 1). In Sahul fire-firewood colexification is the dominant pattern in Australian and Papuan languages (). It is found in Oceanic languages of the Austronesian family that are either spoken on New Guinea or in so-called Remote Melanesia (Vanuatu, New Caledonia and Fiji), both sets of languages

which are known to have undergone significant restructuring on a Papuan-language model (Blust 2008). In Sunda it is found in the Negrito language Great Andamanese, and in pockets of the Austroasiatic family including the Aslian languages spoken by Negritos in Malaysia. Finally, fire-firewood colexification is found in the Austronesian languages spoken by the Negritos of the Philippines, but never the Austronesian languages spoken by non-Negritos in the Philippines.[1]



Map 1: Appearance of fire-firewood colexification between Sunda and Sahul

This distribution is striking because of the consistent association of fire-firewood colexification with languages spoken by Negrito and Australoid Melanesian people and the earliest recoverable language families of Sunda-Sahul. It is strongly suggestive of an ancient pattern of fire-firewood colexification shared by the earliest speech communities of Sunda-Sahul that was largely obscured by later southwards spreads of the Austronesian and Tai-Kadai languages which did not share the pattern.[2] The result is all the more striking for the fact

[1] The Negritos of the Philippines are thought to be the descendents of the only inhabitants of the Philippines prior to the Austronesian expansion. They switched to speaking Austronesian languages.

[2] For instance, Proto-Malayo-Polynesian, the ancestor of all Austronesian languages outside of Taiwan, is reconstructed as having the following terms: *kahiw 'tree, wood', *aliten ~ *aluten 'firewood/brand', *pa-hapuy-

that there has so far been little evidence found of a pre-Austronesian substrate in the Negrito languages of the Philippines (Reid 1994, Blust 2013).

By mapping large numbers of lexico-semantic features across the Sunda-Sahul area, this paper will develop a picture of the lexico-semantic patterns are indicative of substratum effects in the region.

Lameen SOUAG (LACITO – CNRS, Paris)

The distribution of substratum interference in Maghrebi Arabic

In North Africa, the arrival of Arabic speakers starting in 700 AD transformed a linguistic landscape previously dominated by Berber and Latin. As the language first of the ruling elite, and then of trade and religion, Arabic spread at the expense of both the languages its speakers found there. However, while language shift seem likely to have been rapid in a few core towns such as Qayrawan, the spread of Arabic took far longer further afield: indeed, the process continues to this day, and Berber remains vigorous in parts of Morocco and Algeria. The resulting dialect continuum shows massive variation in the extent and nature of substratum influence. In all varieties, a certain number of Berber loanwords are found; in some, Berber influence extends to morphology and phonology. Determining the extent of Latin substratum influence poses particular difficulties, because of later large-scale borrowing from Romance languages. Genetic evidence accumulating over the past decade suggests that, while population movement was the initial trigger for Arabization in the region, cultural diffusion has ultimately played a much more important role, particularly further west.

In this talk, I will examine the distribution of Berber and Romance substratum influence in the Arabic dialects of the Maghreb, with a particular focus on evidence from Maltese, whose early separation from other Arabic dialects facilitates dating. Cross-dialectal comparison of the distribution of substratum vocabulary suggests that any given dialect typically has at least two or three layers of substratum influence accumulated at different times and in different places. The semantic distribution of substratum vocabulary thus reflects multiple language shift situations. Nevertheless, the distribution of substratum lexicon is not

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an 'firewood', *hapuy 'fire'. The Tai-Kadai languages are thought to have spread from southern China into Mainland Southeast Asia in the last thousand years.

random. Some loans group naturally into particular semantic fields, with implications for the nature of early Maghrebi Arabic-speaking society: women's work, women's relationships, certain kinds of agriculture, local flora and fauna... Their analysis fits well into the Wörter und Sachen tradition. However, others cross a variety of semantic fields, and can more effectively be described in terms of their emotional associations, such as disgust or cuteness. This reflects the observed role of emotional arousal in code-switching, and provides indications of the affective associations of the receding language(s) at the time. Both approaches suggest a particular (though far from exclusive) link between women and the substratum language, which matches well with the results of genetic studies.

Francesca DI GARBO & Annemarie VERKERK (MPI-SHH, Jena & Stockholm University)

Radical restructuring of gender systems in the northern Bantu borderlands as a potential substrate effect

The Bantu languages are well known for their remarkable gender systems (a.k.a. noun class systems). These are non-sex-based and typically consist of more than five distinctions with semantic and formal assignment. Nouns are overtly marked for gender, and various types of adnominal modifiers, pronouns, and predicative expressions inflect in agreement with the gender of nouns (Maho 1999, Katamba 2003). In this paper we study the radically restructured gender systems that are found in the northern borderlands of the Bantu-speaking world, that is, the region from where the Bantu expansion begun (Nurse and Philippson 2003).

Out of a sample of 130+ languages, we find evidence for radically restructured gender systems in 13 languages spoken in the northern Bantu borderlands. The cross-linguistic variation observed among these languages can be captured into five types (a list and a map showing the distribution of languages per type is shown on page 2):

Type 1: nouns have traditional gender marking while agreement systems are largely restructured, typically based on animacy and/or singular/plural distinctions;

Type 2: gender marking on both nouns and agreement targets is restructured, and it is in both cases animacy-based;

Type 3: restructuring occurs both on nouns and on agreement targets. Noun-marking signals singular/plural distinctions; agreement-marking is animacy-based;

Type 4: restructuring occurs both on nouns and on agreement targets, but only singular/plural distinctions are marked through agreement;

Type 5: fossilized remnants of overt gender marking on nouns may be present, but no traces of gender and number agreement remain.

We argue that two different contact scenarios may be posited to explain the distribution of these outliers within the Bantu family: (1) substratum interference from pre-Bantu populations shifting to Bantu languages, including 'Pygmies', and (2) (continued) contact between Bantu and non-Bantu languages. A relevant line of inquiry for the first explanation would be to study the genetics of the speakers of languages with a radical restructured gender system. Unfortunately, Central, Eastern, and Southern Africa suffer from lack of genetic data (Pakendorf et al. 2011), and such an endeavor does not seem to be accomplishable in the near future. We therefore limit ourselves to other leads. Bostoen and Gunnik (in prep.) mention the B70 and B80 language groups as having "peculiar phonological, morphological and syntactic" features, which may be attributed to a substrate influence from non-Bantu languages – Yanzi is a B80 language. Bahuchet (2012: 21) lists languages that have been in contact with the Baka and Aka Pygmies, and mentions Kako, Pande, and Pomo.

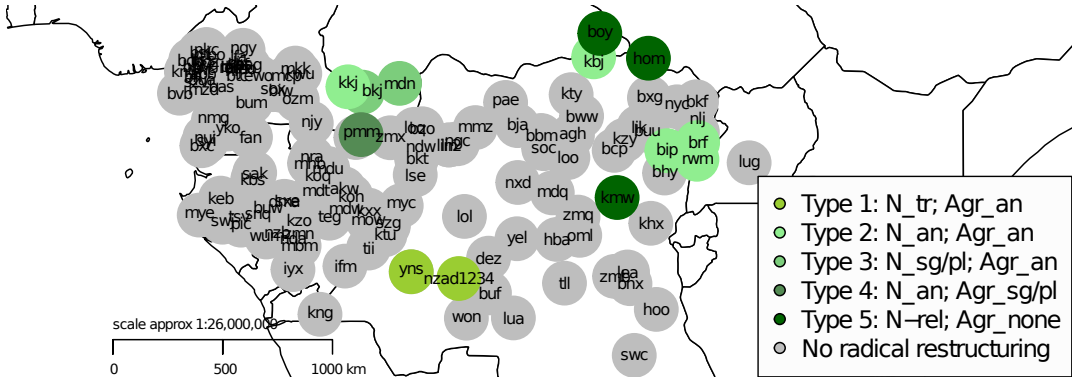
McWhorter (2007) famously argues that non-native acquisition leaves an impact on grammars, and may simplify morphological patterns, including gender systems (McWhorter 2007: 169, 269). Our challenge is to tease apart substratum influence resulting from (ancient) language shift and from (continuous) contact with (possibly gender-less) non-Bantu languages. In addition, research on contact between Bantu and pre-/non-Bantu languages in the Bantu northern borderlands has so far focused either on phonology (Bostoen and Donzo 2013) or on vocabulary (Bahuchet 2012), whereas our focus here is on morphosyntax. We suggest that gender systems, generally very stable but sensitive to language contact dynamics, may provide a potential outlook on ancient substratum in northern borderland Bantu languages.

List of languages per type of restructuring

	Language	Iso/Glottocode	Bantu group	Country
Type1	Nzadi	nzad1234	B865	Democratic Republic of Congo
	Yansi	yns	B85	Democratic Republic of Congo

Type 2	Amba	rwm	D22	Uganda
	Bera	brf	D32	Democratic Republic of Congo
	Bila	bip	D331	Democratic Republic of Congo, Congo
	Kako	kkj	A93	Central African Republic, Cameroon, Congo
	Kari	kbj	D301	Democratic Republic of Congo
Type 3	Mbati	mdn	C13	Central African Republic
	Pande	bkj	C12	Central African Republic
Type 4	Pomo	pmm	A92	Cameroon, Congo
Type 5	Bodo	boy	D308	Central African Republic
	Homa	hom	D304	Sudan, nearly extinct
	Komo	kmw	D23	Democratic Republic of Congo

Radically restructured gender systems in the Bantu northern borderlands



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Björn WIEMER (Mainz University)

Did Finno-Ugric and Turkic substrata and adstrata help consolidate the Slavic aspect system?

The Slavic opposition of perfective:imperfective aspect (IPFV:PFV) represents a classificatory system: the binary opposition is not marked by inflections, but based on derivation in which prefixes and suffixes extend stems. As a result, entire (simple or derived) verb stems are assigned to either pfv. or ipfv. aspect. The following productive morphological schemata obtain:

(I) simplex stem ⇒ prefix+[simplex stem]
IPFV PFV
e.g. Russ. *stroi-t'*.INF, ⇒ ***po**-stroi-t'*.INF 'build'
stroi-l.PST(SG.M) ⇒ ***po**-stroi-l*.PST(SG.M) 'he built'

(II) prefixed stem ⇒ [prefixed stem]+suffix
PFV IPFV
e.g. Russ. *pere-stroi-t'*.INF ⇒ *perestra-**iva**-t'*.INF 'rebuild, reorganize'
pere-stroi-l-a.PST-SG.F ⇒ *pere-stra-**iva**-l-a*.PST-SG.F 'she rebuilt, reorganized'

Slavic provides the best-known case of a stem-derivational aspect system. Although it is not the only one in the world (cf. Arkadiev/Shluinsky 2015), it stands out for its productive combination of prefixation and suffixation which renders possible secondary imperfectivization (see pattern II above). This outstanding character applies in particular on a northern Eurasian background (cf. also Arkadiev 2014).

Concomitantly, this system holds for all Slavic languages and belongs among the few innovations that have affected the entire group. Thus, the onset of this complex morphological structure must be searched for in Common Slavic (ca. 300-700 AD), its

premises reach back into PIE times: prefixes can be reconstructed from (or are still cognate with) less bound preverbs, while suffixal stem modification was inherited from IE predecessors, it was consistently renewed and became more transparent as non-concatenative derivational patterns decreased. This development is unique among the western branches of IE languages: nowhere else in Europe have IE (or other) languages developed a stem-derivational system in which prefixation and suffixation jointly yield a consistent opposition between pfv. and ipfv. verbs. Nowhere else have both prefixation and suffixation come to be used as productive means of stem extensions which can leave argument and valency structure largely unaffected. In all other IE groups of Europe suffixation has been severely reduced or is largely restricted to operations on argument structure (e.g., causatives in Baltic), nor have preverbs developed into prefixes or, if they did, they usually affect the lexical structure of the base verb (see overview in Wiemer/Seržant, forthcoming).

On this areal and diachronic backdrop the question arises whether the typologically outstanding make-up of the Slavic aspect system can be explained without an account of language contact. In particular, the constant renewal and reinforcement of suffixation employed to mark actionality-related features makes one tempted to look for contact-induced support in Finno-Ugric and Turkic substrata and adstrata. East Slavic has spread on Finno-Ugric substrata and adstrata, while Old Church Slavonic and, thus, Bulgarian originated on a strong Oghur (i.e. Turkic) substrate from the middle of the first millenium AD. Galton (1997) claims an even stronger influence of Turkic on the formation of Slavic as a whole. Anyway, such contacts with Slavic-speaking populations cannot be disregarded in the Common Slavic period, i.e. during the Great Migrations, and language shift from Finnic and Ugric into East Slavic (in particular Russian) has been well-attested in more recent stages. All these potential contact languages of Slavic are characterized by consistent patterns of (often renewed) suffixation affecting in particular actionality features of verbs (cf. Wiemer/Seržant, forthcoming, for a sketch and references).

Therefore, my talk pursues the hypothesis that the preservation and constant renewal of suffixal stem derivation in Slavic has been sustained by Finno-Ugric and Turkic substrata and adstrata. That is, these strata may have caused 'replica preservation', not of particular suffixes, but of suffixal stem-derivation as a morphological pattern (the term was coined by Dickey 2015: 35, but with respect to the "prefix part" of the aspect system and to the western edges of Slavic). The reinforcement of this pattern would then have spread via inner-Slavic diffusion to the western part of Slavic. This hypothesis becomes more likely in view of

recurrent observations that suffixation as a means of deriving ipfv. stems from prefixed stems (see schema (2) above) has been more productive in the eastern part of Slavic than in its western part (Petruxina 2000: 89, 101-104, especially Arkadiev 2015: 122-125 for an overview).

My discussion of the pros and cons of this hypothesis involves the following issues:
(i) How likely is the micro- and macro-areal diffusion of derivational patterns (PAT-borrowing)? In particular, what is the macro-areal background of stem-derivational aspect and of productive suffixation in northern Eurasia?

(ii) What can we say about the probability of prefixes (or preverbs) vs. suffixes to be productively employed for the extension of verb stems, given an overall typological distribution and macro-areal biases?

(iii) The (pre)historical preconditions of contact and language shift from non-IE into Slavic.

(iv) Recent examples of code-copying of suffixation in Slavic language contacts that might help reconstruct (extrapolate) more ancient scenarios.

I will conclude with a proposal of a likely scenario, including relative chronological layers.

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Fabian Dustin ZUK (Université de Montréal & Université Lyon III)

Reprendre sa langue au chat: The Gaulish substrate resonates in modern Gallo-Romance vernaculars

Gallo-Romance is usually divided into three linguistic spaces: the langue d'oïl in which Latin *ă* and *ā* result in French /ɛ/ in open tonic syllables, in /ə/ pre and post-tonically and which remains /a/ elsewhere (Zink 1986); the Francoprovençal space where Latin low vowels are preserved as /a/ except after a palatal consonant in which case /a/ palatalises to /i/ (Kristol 2016); and finally, the Occitan space where the result is /a/ regardless of position (Olivieri & Sauzet 2016). When attention is paid to phonetic details however, one observes that Latin /a/ is produced with varying degrees of roundness in the regional speeches of Gaul. In a first step, I present the dialectal evidence from the early twentieth-century *Atlas Linguistique de la France* as and more importantly from recent phonetic studies of Laurentian French, Occitan and Franco-Provençal, all of which point towards [ɒ] or [ɔ] as a rounded allophone of /a/ in the Gallo-Romance speech area.

The interplay between *a* and *o* is visible in classical toponymy as in *magilo* vs. *mocilo* built on the Celtic etymon MĂG (Billy 1998). Likewise Stifter (2009) convincingly demonstrated that Celtic interference contributed to the adoption of certain Germanic /o/s as Latin /a/ as far back as the first century B.C. This roundness is still hear today in Occitan despite its reputed conservatism, atonic /a/ is rounded to [ɔ] in words like *campana* [kampanɔ]. Likewise, in the Laurentian French basilect, /a/ in open monosyllables is systematically pronounced [ɔ] in words like *chat* [ʃɔ] and *là* [lɔ]. Based on the adage: *geographisches Nebeneinander des historichen Nacheinander* (Reenen & Mulder 2003:180), i.e. that diatopic variation is historical change in synchrony, we postulate that roundness is a feature of common Gallo-Romance. In contrast to the widespread view that Celtic contributed very little to Gallo-Romance (Silva 2006:807), we suggest instead the continuity of Gaulish speech habits which have endured in low-level phonetic details often overlooked in heavily phonologically-leaning descriptions of language change. This hypothesis is reinforced by contrastive results from the Jura department where unstressed Latin /a/ has

been phonologically remapped to Jurassien /o/, a consequence which we attribute to yet another substrate: Germanic.

In this case study of Gallo-Romance and Germanic, it is my intent to demonstrate how phonetic details of modern-day vernaculars may help us reconstruct the phonological systems of prehistoric and unattested languages.

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Abstracts of cancelled talks

Tom GÜLDEMANN (MPI-SHH, HU Berlin) & Anne-Maria FEHN (MPI-SHH, U Frankfurt)

The differential role of substrate interference in shaping the languages of the Khoe family

The 'Kalahari Basin' as a typological area encompasses languages of the Tuu, Kx'a and Khoe-Kwadi families formerly subsumed under the label "Southern African Khoisan". While a considerable number of lexical, phonological and structural isoglosses are shared between all three lineages, a clear typological split emerges between Non-Khoe, i.e., Tuu and Kx'a, on the one hand, and Khoe-Kwadi on the other. This is in line with evidence from cultural anthropology and human genetics, which suggests that Khoe-Kwadi is a colonizing lineage associated with a pre-Bantu spread of Late Stone Age pastoralism into southern Africa. This encroachment of Khoe-speaking herders into the Kalahari Basin was accompanied by substantial admixture with indigenous populations and probably caused multiple events of language shift in which speakers of Kx'a and Tuu adopted the languages of their dominant, food-producing neighbors.

In this talk, we look beyond shared lexicon and phonological patterns and assess to which extent the structure of individual languages was modified through substrate interference or borrowing. Focusing on a wide range of published and unpublished data from all three lineages, we identify substantial positive features, which are recurrent in the area, sufficiently marked, and shared between Khoe and Non-Khoe languages. These include clusivity, multi-verb constructions, patterns of TAM encoding, non-canonical clausal noun modifiers, dedicated associative plurals, and non-semantic participant flagging.
We find that the predominant situation shows those features to be well entrenched in the non-Khoe families, but restricted to a subset of Khoe languages. Their geographical distribution further suggests that the more Khoe languages have encroached onto the Kalahari Basin, the more pronounced is their change towards non-Khoe patterns.

Guus KROONEN (University of Copenhagen)

Non-suffixation as an indicator of borrowing in Pre-Proto-Germanic

The substrate method is a formal method used to isolated non-inherited lexical elements in a language, even when the donor language is unknown. The features leading to the identification of previously unidentified loanwords typically consist of recurrent non-native patterns such as an abnormal syllable structure, irregular sound correspondences, or non-inherited suffixes. In this paper I discuss the use of a "non-suffix" as a diagnostic feature for the identification of prehistoric loanwords in Germanic. Though this non-suffix is in fact inherited from Proto-Indo-European in the category of the root nouns, it can be demonstrated to have been adapted to incoming loanwords from both known and unknown languages spoken in prehistoric Europe. I thus paradoxically argue that the lack of a suffix, whether inherited from Proto-Indo-European or not, can be added to the list of features for the identification of loanwords in Proto-Germanic.

Alexander MILITAREV (Russian State University for the Humanities, Moscow)

Afrasian Substratum in Sumerian?

Among other evidence in favor of the author's hypothesis of West Asian homeland of Proto-Afrasians and their identification with the creators of Natufian and Post-Natufian archaeological cultures (see its brief version in *Alexander Militarev Wikipedia*), I've picked up about fifty cultural and even basic terms similar both phonetically and semantically in Sumerian and Afrasian/Afroasiatic/Semito-Hamitic (there are certainly more to find – and I'm working on this). Since most of these terms are attested to in more than one Afrasian branch and, hence, ought to be reconstructed on a Proto-Afrasian level, they should be viewed as Afrasian loans in Sumerian rather than *vice versa* (the assumption of Sumerisms in Proto-Afrasian dated back to the 11^{th}-12^{th} mill. BCE is too unlikely though, theoretically, cannot be completely ruled out). At the same time, the vast majority of such cases cannot be regarded as later Akkadian or other Semitic loanwords in Sumerian, as the author deliberately selected the terms either unattested in Semitic at all or related to the Afrasian terms in question but reflected in the Semitic languages in somewhat different form and meaning. Therefore, direct language contacts have to be

assumed between Sumerian and several non-Semitic Afrasian languages on a proto-branch and proto-group level (such as Proto-West-Chadic, Proto-East-Cushitic, Proto-Berber, etc.) As there are no reasons to locate the original Sumerians' habitat in Africa (or classify Sumerian as a branch of Afrasian), West Asia must be accepted as the most plausible area of such contacts. Since, on the one hand, there are strong arguments for the speakers of non-Semitic branches of Afrasian having migrated to Africa several millennia prior to the earliest traces of Sumerians in Mesopotamia and, on the other hand, the said isoglosses, on the Afrasian side, are found in various Afrasian branches, the most plausible explanation is that there was one more, unidentified, branch of Afrasian, beside Semitic, that stayed in West Asia, most likely in Mesopotamia, and became a substratum underlying Sumerian. It would be, then, that same "abandoned language" which, naturally, inherited the Afrasian *lexica* (the fact accounting for cognates with *different* Afrasian languages preserving the same roots) borrowed by Sumerian in the process of language shift.

As for the common Sumerian-Afrasian terms discovered so far, they belong to quite different semantic fields (besides a few word from the basic lexicon included into Swadesh's 100-wordlist), which I roughly classified as: (1) plants, crops, honey; (2) wild and domestic fauna; (3) space, landscape, water sources; (4) society and religion.

A few examples (Sum. words are quoted after S.Parpola's Etymological Dictionary of the Sumerian Language, 2016; Afrasian, from Afrasian Data Base by myself and O.Stolbova):

1. Sum. išin 'grain awn, stubble' (cf. ašnan 'grain' < Akk. *ašnanu* 'Korn, Getreide') – AA **sVny/ʔ-* 'seed, corn, (standing) crops': Sem.: Akk. (above), Soqotri *šáne* 'semence, blé qui est sur les tiges', etc.; Eg. (MK) *sn* 'Opferbrote'; Chadic **sVn-* 'seed, sorgho'; East Cush. **sannVy-* 'seed'; South Omotic: Hamer *isin* 'sorghum'.

2. Sum. dàr, dàra 'ibex' – AA **(ʔV-)dVr-* 'k. of bovid': Sem.: Akk. *dudrū* 'k. of sheep', Tigre *ʔaddarit* 'dwarf-antelope', etc.; Egyp. (OK) *ỉdr* 'Herde'; Berb. (Tuareg) **ʔidar-* 'oryx'; Chad.: Hausa *dari* 'hartebeest', Dangla *daro* 'gazelle sp.', etc.; Cush.: Afar *wadâr* 'Ziegen, Kleinvieh', Somali *aderio* 'male kudu antelope', Burunge *doro* 'zebra', Dahalo *ḍáḍiiri* 'Lesser Kudu'; Omot. **dVr-* 'sheep'.

3. Sum ur 'dog' (also 'lion') – AA **wahar(-ab)-* 'k. of canine or hyena': Egyp. (late) *whr-t* prop. noun 'bitch', Copt. *ʔuhor* 'dog'; Berb. **wahar* 'fox'; Chad.: Pa'a *ʔyara* 'dog', etc.; Cush.: Lowland E. Cush. **warāb-* (and Konso *oray-ta*) 'hyena', Maʔa *waré* 'hyena'.

4. Sum. illu 'water-hole, well, spring' – AA: South Cush. **ʔilal-* 'springs' (with Berb. cognates).

5. Sum. kar 'rob, steal' – AA **kar-* 'steal' (Berb., Chad. id.; Cush.: Beja *kuara* 'robber').

6. Sum. gána, gán 'field, area' – AA **gan-* 'area, plot of land producing edible plants': Sem. **gann-* 'garden'; Berb. **gan* 'tree with edible fruit'; Chad. ** $g^{(w)}$an-* 'field, farm'.

7. Sum. nun 'god' – AA: West Chad. **nan-* 'god' (likely < AA **nahin-* 'masculine relative': Sem.: Soqotri *ninhin* 'elder brother', *ninho* 'master, lord'; Chad. **nahin-* 'brother, uncle'; North Omot. **na(H)in-* 'brother, relative'.