### SLE 2017 Workshop – Book of Abstracts

### When "noun" meets "noun"

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### Workshop description: When "noun" meets "noun"

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Compounding is one of the most widespread methods of word-formation in the world's languages. That being the case, one might expect typological studies of compounding to offer interesting insights into the nature of conceptualization. So far, however, cross-linguistic research has not been very revealing in this regard. Bauer's (2001) investigation of an areally and genetically balanced sample of 36 languages has surprisingly few generalizations to report; Guevara & Scalise (2009), drawing on a database of 80,000 compounds, limit their conclusions to mostly formally defined scales of preference; while Štekauer, Valera & Körtvélyessy (2012) are primarily interested in the presence or absence of different types of compounding in their sample of 70 languages.

Two reasons can be posited for this state of affairs. Firstly, previous studies have aimed to cover the full range of compounding. Given that different types of compound often exhibit different properties (e.g. Mandarin has right-headed nominal compounds and left-headed verbal compounds), this can complicate the typology unnecessarily. Secondly, the purely formal point of departure of these studies leads to issues with cross-linguistic identification and the risk of excluding potentially interesting phenomena from the investigation. For example, while admitting Ger. *Eisen.bahn* [iron.track] 'railway', most definitions of compound exclude Fr. *chemin de fer* [track PREP iron] 'railway', even though the constituent meanings, the resultant meaning, and presumably also the underlying cognitive processes, are essentially identical.

This workshop adopts a different perspective, one that involves a simultaneous narrowing and broadening of scope. First of all, instead of examining the whole gamut of compounding, it starts out from the more uniform phenomenon of noun-noun compounding. This represents a narrowing of scope. Secondly, it adopts a functional rather than a formal approach to defining the object of study, which results in a broadening of scope. This is because the *function* of noun-noun compounds – to provide names for complex concepts that involve two entities – is not theirs alone.

Thus, in addition to **noun-noun compounds** (e.g. *Eisenbahn*) and **prepositional compounds** (or "phrasal lexemes", e.g. *chemin de fer*), the same function is carried out by **relational compounds** in Slavic languages (e.g. Rus. *želez.naja doroga* [iron.ADJZ road] 'railway') and constructions that "compete" with them (Rainer 2013), **izafet constructions** in Turkic (e.g. Tur. *demir yol.u* [iron road.3SG] 'railway'), **construct state constructions** in Semitic (e.g. Modern Hebrew *mesila.t barzel* [track.CON iron] 'railway'), and **genitive-like constructions** in many languages from around the world (e.g. Malagasy *lala.m.by* [road.PERT.iron] 'railway').

What all of these constructions have in common is that they serve to name a complex concept via the combination of two "Thing-roots" (Haspelmath 2012), between which there is an unstated (or underspecified) relation. They are all *binominal naming constructions* (or "binominals" for short).

Viewing binominals from a functional perspective is an innovation in terms of language typology, but it is not totally without precedent. Three previous studies are especially noteworthy. Levi (1978) includes both nominal compounds and "non-predicative" (i.e. relational) adjective constructions under the cover term "complex nominal". Rainer's (2013) notion of relational adjectives "competing" with nominal compounds, genitives, prepositional phrases and "certain kinds of derivations" comes very close to the present conception of

binominals. And so too does the use of the term "adnominal nominal modification" by Bauer & Tarasova (2013) to cover a range of constructions in which a noun is modified by another noun.

The commonality between such binominals can also be viewed in terms of Štekauer's model of onomasiological word-formation, according to which they are all Type 3 naming units (where "the determined (actional) element is not linguistically expressed", Štekauer 1998:10). Adopting this perspective encourages two further refinements, again involving a simultaneously narrowing and broadening of scope. The first is the exclusion of complex nominals of Štekauer's Type 1 and Type 2 that contain an "Action-root". As a consequence, synthetic compounds like *truck-driver* are considered *out of scope*. This is justified on the grounds that the presence of an actional element (here: drive) may be expected to involve different formal and semantic parameters, which (again) would complicate the typology unnecessarily.

The second refinement is based on the recognition that nominalizing affixes, like Eng. -er and Slovak -ica, and noun classifiers like Bora -heju ('hole-like object') can play one of the "nominal" roles in a Type 3 complex nominal. At least in terms of the cognitive processes involved, there is no difference between Eng. banker and bankman, despite one being formed through derivation and the other through compounding, or between Bora túú.heju [nose.CM(hole)] and Indonesian lubang hidung [hole nose], both of which mean 'nostril'. Consequently, nominalizing suffixes and noun classifier constructions that fulfil the basic criteria of 'binominal-hood' are considered in scope.

This approach to complex denotation cuts across traditional boundaries between morphology and syntax, and between compounding and derivation: it "divides the cake" in a new way that might reveal new insights into language and conceptualization. The goal of this workshop is to explore semantic and morphosyntactic aspects of binominals as defined here, along with frequency, productivity, and competition between different strategies, across a broad range of languages (in particular, lesser-studied and non-SAE languages) and along different dimensions (contrastive, typological, diachronic, acquisitional, cognitive).

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### Noun+Noun and Noun+Adjective juxtapositions in Polish: syntactic schemas employed in building phrasal nouns

# Bożena Cetnarowska (University of Silesia)

Juxtapositions in Polish, i.e. multiword expressions (in the sense of Hüning and Schlücker 2015) which consist of a noun followed by a modifying relational adjective (N+A as in 1) or those containing a noun followed by a modifying noun marked with genitive case (N+N.GEN, as in 2), belong to the fuzzy border between syntax and morphology.

- (1) a. dom studencki b. pociąg osobowy house.NOM student.ADJZ train.NOM person.ADJZ 'student dormitory' 'slow train'
- (2) a. dom studenta b. dom kultury
  house.NOM student.GEN house.NOM culture.GEN
  'student dormitory' 'cultural centre; community centre'

N+N and N+A combinations are regarded as syntactic units by, among others, Willim (2001) and Szymanek (2010). Both constituents of multiword units are inflected and they are not linked by a vocalic interfix, which makes juxtapositions different from compounds proper in Polish, such as *gwiazdozbiór* (lit. star-LNK-set) 'constellation'. However, since their function is comparable to that of attributive or subordinate compounds (in the classification by Scalise and Bisetto 2009), juxtapositions are treated as a subtype of compounds by Laskowski (1984) and Nagórko (2016). The partly unpredictable semantic interpretation of multiword expressions, as shown by (1b) and (2b), also implies their compound-hood.

Given the recent work on multiword units, couched within the framework of Construction Morphology (e.g. Booij 2010, Hüning 2008, Masini 2009), it can be argued that in Polish some construction schemas are used both to create (or analyse) syntactic phrases and multiword lexical units (that is, juxtapositions). Some potential problems for such a hypothesis will be dealt with in this paper.

Multiword units with a classifying function exhibit more restrictions on their internal structure than corresponding noun phrases with a descriptive function, cf. the unacceptability of the phrasal noun \*dom bardzo pijanego studenta 'dorm for very drunken students'. Moreover, in noun phrases in Polish the adjectival descriptive modifier typically precedes the head noun (e.g. piękna kobieta 'beautiful woman') while in N+A juxtapositions the adjective typically follows the head N. The opposite orders are attested but marked. Furthermore, in (possessive) noun phrases the genitive modifier can occasionally precede the head noun, e.g. dom dziadka (house.NOM grandpa.GEN) 'grandpa's house' and dziadka dom (grandpa.GEN house.NOM) 'grandpa's house'. In contrast, the N.GEN+N order is not possible in the case of juxtapositions, as in \*kultury dom (culture.GEN house.NOM), unacceptable in the intended reading 'cultural centre' (cf. 2b). The lack of reversibility of N+N.GEN combinations will be linked here with another property of phrasal names (as opposed to syntactic phrases), namely their 'kind' reading (Bücking 2010). Syntactic tests will be employed to show that nominal (genitival) modifiers or relational adjectives in attributive juxtapositions refer not to a particular individual (or object) but to a class (i.e. 'kind' or 'type') of individuals.

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### Constituent placement in relational adjective constructions in French and Polish

Dr. Christina Clasmeier (Bochum)
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In the world's languages, the combination of two (or more) nominal concepts can be realized by very different types of constructions. In our contribution to the workshop, we will focus on A(djective)-N(oun) constructions, in particular, relational compounds in French and Polish, as well as on their binominal translation equivalents of the type NN and N Prep N. While Slavic languages commonly implement the combination of two nominal concepts via relational adjective constructions, Romance languages may also resort to other nominal constructions, such as noun-noun compounds or prepositional compounds.

According to Radatz (2001: 96), derived relational adjectives still contain the semantics of their nouns and may be derived from nouns by different rules and strategies. French appears to differ from other Romance languages and Latin in showing a more fixed position in adjective placement. In the same way, Polish differs from the other Slavonic languages by the much higher frequency of the postposition of a relational adjective (e.g. Polish administracja państwowa (NA) vs. Russian gosudarstvennoe upravlenie (AN) 'public administration').

The starting point of our talk is the hypothesis by Gawełko (2012), who states the existence of a common development of the AN => NA position in French, Latin and Polish. He characterizes French to be located at a more advanced stage of this development (NA for nearly all relational adjectives and most adjectives of quality), but Polish, in contrast, at the second, "transitional" stage (AN for the adjectives of quality and dominant NA for relational adjectives). However, as demonstrated by the enormous amount of studies on French as well as on Polish adjective placement, the empirical situation seems to be more complex. In French, this is partially due to its great variety of equivalent constructions in the formation of complex nominals.

In our talk, we will present results from a contrastive synchronic study using the French and Polish parts of the Parasol Corpus, a parallel corpus of belletristic texts. We aim at comparing the frequency of different types of AN/NA-constructions in French and Polish in order to test Gawełko's hypothesis. In a second step, we will analyse different types of constructions as translation equivalents to AN/NA-constructions, for instance Polish *rada nadzorcza* and its French N Prep N-equivalent *conseil d'administration*. We will complete our talk by comparing the synchronic results of our analysis to current diachronic studies on the topic.

The crosslinguistic comparison and detection of equivalence patterns aims to shed some light on the preference for different forms to express two nominal concepts, namely AN or NA combinations in Polish and French as well as NN or N Prep N constructions in French. For this purpose, Štekauer's cognitive onomasiological theory (Štekauer 2005) seems to be particularly suited, as it considers different productive types of word formation and different naming units.

In a conclusion, we will discuss the possible realizations of combinations of nominal concepts in French and Polish in this framework.

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### Some morphological peculiarities of Balto-Slavic binominals and nominal derivatives

### **Arthur Laisis**

(École pratique des hautes études – Paris)

Baltic and Slavic languages make an extensive use of binominal compounds. My aim is to survey and compare the history of one particular formation involving a suffix common to both language groups (going back to Proto-Indo-European \*-iio, cp. Latin pater 'father'  $\rightarrow$  patr-ius 'paternal'). The original meaning of this suffix was possessive, as still exemplified in one-base lexemes (cf. Lithuanian derivative arkl-ys '(draught) horse' from arkl-as 'ard plough'). In Balto-Slavic, however, it also entered the formation of prefixal and compound nouns; in this case, it has lost its original possessive meaning and is used merely as a compositional suffix, consequently triggering a stem transfer (cp. Old Prussian grēiwa-kaul-in 'rib', -iio-stem, with simple caul-an 'bone', o-stem).

The use of this suffix has clear limitations: it only applies to nominal stems (deverbative compounds have other formations) and is most productive in place and time names (e.g. Lithuanian *varda-dien-is* 'name-day'  $\leftarrow$  *vardas* 'name' + *diena* 'day', Russian *pod-moskov-'e* 'area around Moscow'  $\leftarrow$  *pod* 'under' + *Moskva* 'Moscow'). Its spread is not uniform among individual Baltic and Slavic languages. Indeed, while some languages, like Sorbian, hardly have any trace thereof, it has become characteristic of almost all types of Lithuanian binominals, replacing at times older competing suffixes; in this language, this morphological feature makes binominal compounds very similar to other nominal formations, such as compound adjectives, prefixed nouns and prefixed adjectives.

Gender also happens to be an interesting feature in this formation: while Slavic consistently has neuter forms for all such derivatives (cf. Polish przed-szkol-e nt. 'pre-school'  $\leftarrow przed$  'before' + szkola f. 'school'), Baltic languages favour opposite gender assignment of the base noun gender (e.g. Latvian pat-skan-is m. 'vowel'  $\leftarrow pats$  '(one)self' + skan f. 'sound', Lithuanian kryz-kel-e f. 'crossroad'  $\leftarrow kryzius$  'cross' + kelias m. 'way') quite in a regular manner.

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# Kristin Kopf (Mainz University)

Old and Middle High German compounds overwhelmingly involved two simple constituents. Compounds with three nouns were unusual and derivationally complex first elements were extremely rare (Carr 1939, Wilmanns 1896). In sharp contrast, present-day German is known for its nearly unrestricted ability to form new compounds (e.g. Schlücker 2012). Compounding is the default mechanism for neologisms and loanword integration (Harlass/Vater 1974, Munske 2009).

In this paper, I'll present corpus data from 1500 to 1710 to show that the rise of compounding in German cannot be discussed independent of change in a number of relevant syntactic structures. As can be seen from the excerpts of  $15/16^{th}$  century Bible translations in (1), the Latin or Greek genitive phrase *in vestitu ovium/ἐν ἐνδύμασι προβάτων*, in sheep's clothing' was expressed as either a noun phrase with a relational adjective (1a), a postnominal genitive construction (1b), a prenominal genitive construction (1c) or a compound (1d), yielding four formally different ways to express one binominal naming construction.

(1)	a.	in schef	f-in	gewand	e		(Menteli	in, 1466)
		in sheep	o-ADJ	robe				
	b.	in den	klederer	1	der	scape		(Lübeck, 1494)
		in the	clothing		the.GEN	sheep.G	EN	
	c.	ynn	schaff-s		kleyderi	1	(Luther,	1522)
		in	sheep-G	EN/LE	clothing	;		
	d.	in Schaf-s-kleidern					(Luther, 1545)	
		in sheep	o-LE-cloth	ing				

Cases like (1c) pose a much-discussed problem (Pavlov 1983, Nitta 1987, Demske 2001, Solling 2012, Kopf 2016): As spelling varies greatly, a clear distinction between compound and phrase is not always possible. I will show that even seemingly obvious indicators (i.e. agreement between determiner and second noun) cannot be relied upon, and propose a comprehensive way to handle such ambiguities.

The discussion of binominal naming constructions in Early New High German has mostly been restricted to reanalysis of prenominal genitive constructions, which gave rise to compounds with linking elements that reflect earlier genitive suffixes (LE; 1c > 1d; e.g. Pavlov 1983). I will show that this process set in motion the loss of morphological restrictions in N+N compounds. However, I included not only possible direct precursors to reanalysis (as in 1c) in my data, but also functionally equivalent postnominal genitive constructions (as in 1b), thus most of the expressions that could be used for a binominal naming construction. This allows us to gain insight into a complex process of formal redistribution: Postnominal genitive constructions (which cannot be a source of reanalysis), decline, as do their functional equivalents in prenominal position, while compounds are rising. The data therefore suggests a more general change in expression, shifting the form of binominal naming constructions from phrases towards compounds.

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### Compounds in Karachay-Balkar

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Karachay-Balkar (KB), a Turkic dialect spoken mainly in the south parts of Karachay-Cherkessia and Kabard-Balkar Republics of Russia and cited as an endangered language by Unesco, have Noun-Noun compounds that surface with/out the marker –*sI*.

In KB, -sI is optional with compounds the Turkish counterparts of which obligatorily bear -sI (Seegmiller 1996, pg. 15, Tavkul 2007, pg. 924).

(1) a. at arba-(s1) b. tiş dohtur-(u) horse car-(sI) tooth doctor 'carriage' 'dentist'

However the appearance of -sI with Noun-Noun compounds is not fully optional.

(2) a. caş can-\*(1) b. tav baş-\*(1) boy side-sI mountain top-sI 'boy's side' 'mountain top'

This study aims to (i) find out the groups of compounds that obligatorily or optionally surface with -sI, (ii) reveal semantic and syntactic properties of the two groups and (iii) explain the derivational domains for the compounds and the results will shed light on the function of -sI in Turkic languages. In Turkish, compounds without -sI or phrases differ from compounds with -sI in that nouns in compounds with -sI mark subordinating relation but not attributive relation (Göksel and Haznedar 2008).

In Karachay-Balkar, even in the absence of -sI, subordinating relation is preserved. Hence we suggest that the function of -sI cannot be taken as marking subordinating relation. The findings reveal that -sI signals the presence of an argument being the head of functional head nP. If the head noun is inherently transitive encoding kinship terms (3a), dependent part whole (3b) or if it is derived from a verb (3c), the argument status of the non-head is signaled via -sI. This is similar to the analysis of Öztürk and Taylan (2016) for Turkish; however Karachay-Balkar is even more restrictive in that -sI surfaces only with inherently transitive heads obviating the need for type-shifting operators.

(3) a. kız ata-sı b. orunduk kıyır-ı c. çaç eşimdi-si girl father-sI bed side-sI hair braid-sI 'father of a girl' 'side of a bed' 'hair braid'

-sI follows plural marker and case markers, and the derivational marker -cI.

- (4) a. tepsi üs-ler-in-de surat bar-dı. table top-PL-sI-LOC picture exist-3SG 'There is a picture on top of the tables'
  - b. oram satuv-cu-su kel-di.street seller-cI-sI come-PAST'The street vendor came.'

The compounds in KB allow modification of the non-head which indicates that the head and the non-head do not form an opaque domain and the non-head is accessible for syntactic operations.

(5) Ata-m ((eski kamyon) şaför-ü-dü). father-1SGPOSS old truck driver-sI-3SG 'My father is an old-truck driver.'

However the compounds differ from phrasal units in that they do not allow insertion of a constituent between the head and the non-head (6a-b) which is possible in phrasal units (6c).

(6) a. \*kitap cırtık bet-(i) b. \*oram bir kiştig-(i) c. tögerek bir tepsi book torn page-sI street a cat-sI round a table Intended: 'a torn book page' Intended: 'a street cat' 'a round table'

Compounds in KB show word level properties in that it is not possible to insert a constituent between the head and the non-head, but also phrase level properties in that it is possible to modify the non-head excluding the head. However compounds differ from noun phrases in that nouns form a subordinating relation. We propose that morphology is the derivational domain of compounds. However in line with Ackema and Neeleman (2004), we suggest that syntax and morphology are parallel domains in that morphological objects can be inserted in syntactic terminals and syntactic objects can be inserted in morphological terminals. Hence compounds show mixed properties of word level and phrase level constituents.

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### Semantic correlation between binominal constructions and denominal nominals in Turkic

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Turkic languages extensively use both compounding and derivation as means of word-formation, and both techniques can often express the same semantic concepts. For instance, Turkish  $tuz\ kutusu$  [salt container-poss.3sg] and tuzluk ( $\leftarrow tuz$  'salt') can equally refer to a 'salt-cellar'. Similar to this, both Turkish  $kamyon\ sof\ddot{o}r\ddot{u}$  [lorry driver-poss.3g] and kamyoncu ( $\leftarrow kamyon$  'lorry') mean a 'lorry driver'.

The main goal of the presentation is therefore to compare binominal constructions and denominal nominals in terms of their semantic capacity, interchangeability and competitiveness. The description is based on a wide range of older and modern Turkic languages allowing family-internal generalisation. For the sake of simplicity, we provide here only Turkish examples.

Grammars of the Turkic languages, see e.g. Erdal (2004) for Old Turkic, Lewis (1967) and Kornfilt (1997) for Turkish, often present compounding in an oversimplified form and cite a limited number of *ad hoc* examples based on the introspection of their authors. Other descriptions with an effort at systematization provide just cursory overview, see e.g. Göksel (2009) and Károly (2016). For that reason, first we present a complete list of possible construction types with an emphasis on the endocentric ones. These are (1) juxtapositions, (2) possessive constructions, (3) izafet constructions, (4) relational constructions, and (5) phrasal compounds.

Using the cathegories of Levi (1978) and Estes & Jones (2006), we then define a set of possible semantic relation ( $\Re$ ) types, such as PART, CAUSE, IN, FROM, FOR, POSSESSION, HABITAT, which allow unequivocal comparison of binominal constructions and derived nominals, see e.g.:

- (1) ℜ(FOR)

  mezarların yeri [grave-pl-gen place-poss.3sg] 'cemetery'

  mezarlık 'cemetery' ← mezar 'grave'
- (2) ℜ(FOR)

  yol arkadaşı [way friend-poss.3sg] 'fellow traveller'

  yoldaş 'comrade, fellow traveller' ← yol 'way'

Then we discuss the Turkic denominal nominalizers and their relation to binominal constructions. Our data makes it evident that the semantic relations represented by a nominalizing suffix fall into a limited number of categories. For example, the suffix +lXk typically creates FOR or BE relation between a nominal stem and its derivative. The greater semantic variability of binominal constructions is due to the fact that they encompass two independent lexical elements, whereas derivatives are only based on single lexical items. However, derived nominals cannot always be expressed by composition of two nominal constituents, see e.g. Turkish  $cochlete{cochlete}$  ( $cochlete{cochlete}$ ) 'childhood' and  $cochlete{cochlete}$  of conclude that the reciprocal relationship between binominal constructions and denominal nominals is because of their different compositional and structural degree of complexity (Rescher 1998).

Finally we point out that the *nomen actoris* suffix  $+\check{c}I$  commonly described in the literature as denominal nominalizer is, due to its morphosyntactic properties, better to describe as denominal adjectivizer, thus out of the scope of the present discussion.

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### Binominal compounds in Enindhilyakwa (AOI, Gunwinyguan, Australia)

Marie-Elaine van Egmond (University of Greifswald)

This paper introduces two new types of binominal compound (BNC) from Enindhilyakwa, an Aboriginal language spoken in Northern Australia. Like many other Northern Australian languages, Enindhilyakwa is polysynthetic, thus making extensive use of morphology to identify grammatical relations, with agreement throughout the clause. As a result, simply putting two nominals together to build a compound noun - as in the English noun-noun compound *railway*, the French prepositional compound *chemin de fer* [way of iron] 'railway', or the Russian relational compound *železnaja doroga* [iron.adjz road] 'railway' - is not an available strategy in this language. <sup>1</sup> This is because modifiers need to agree with their heads.

Enindhilyakwa employs a set of derivational prefixes to achieve agreement: inalienable possession (inalp) and alienable possession (alp), which enable modifiers to agree with the noun class of their head. The two constructions each name a subset of complex concepts, as illustrated in (1, inalp) and (2, alp) (van Egmond 2012), and constitute two additional binominal construction types to the ones identified byh8 the workshop convenors:<sup>2</sup>

- (1) a. ma-ma+kulya menba VEG-INALP+skin VEG.eye 'eyelid'
  - b. *yi-nv-ma+kulya kalkwa*MASC-M-INALP+skin coconut(MASC)<sup>3</sup>

    'coconut husk'
  - c. *yi-nv-m-eminda yikarba*MASC-M-INALP-NEUT.nose MASC.woomera
    'woomera hook'
- (2) a. envngv-menba

NEUT.M.ALP-VEG.eye

'glasses, spectacles' (Lit.: 'neut class item associated with the eye')

b. envng-arrvrra

**NEUT.M.ALP-NEUT.wind** 

'bicycle pump' (Lit.: 'neut class item associated with wind')

Non-human nominals derived with the inalp prefix refer to components of body parts (1a) or parts of inanimate objects (1b,c), where the noun class of the part agrees with that of the whole. The alp construction (2) has a sense of 'belonging to' or 'associated with', and the derived noun agrees in noun class with the hypernym (introduced objects are usually neut noun class).

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<sup>&</sup>lt;sup>1</sup> This appears to be the case for other languages belonging to the Gunwinyguan family as well: e.g. Bininj Gun Wok (Evans 2003), Wubuy (Heath 1984), Ngalakgan (Baker 2008).

<sup>&</sup>lt;sup>2</sup> The letter  $\nu$  represents the phoneme /ə/; NEUT = neuter noun class; VEG = vegetable noun class; MASC = masculine noun class; F = feminine gender; M = masculine gender; NMLZ = nominalizer. A synchronic morpheme boundary is indicated with a dash (-); a frozen morpheme boundary with a full stop (.), which is not indicated on the lexeme; and bound forms with a plus sign (+).

<sup>&</sup>lt;sup>3</sup> *Kalkwa* is not overtly marked for noun class because it is a Macassan loanword, and loanwords do not take noun class prefixes.

Examples (1a) and (2a,b) are complex concepts from Pepper's (2016) cross-linguistic sample of BNCs in the world's languages. Completing Pepper's list for Enindhilyakwa results in a comparatively low frequency of BNCs: 14% (against an average of 21%). Pepper's data base so far includes only one other Australian language: Gurindji (North Australia, genetically unrelated to Enindhilyakwa), which has an even lower BNC frequency (7%). However, these low numbers are most likely due to the fact that many of the complex concepts in the sample do not exist in (former) hunter-gatherer societies, such as *doorpost*, *flea market*, *breakfast*, *carpenter*, and so on. Only 47% of Pepper's complex concepts are realized in Enindhilyakwa. Furthermore, many of the complex forms from his list are not binominals, but for example nouns derived from verbs (4a) or adverbs (4b):

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(4) a. a-k-warikaja

NEUT-NMLZ-tangle_up

'vine' (Lit: 'neut class item that is tangled up')

b. me-merrku-wilyarra

VEG-sun-in_the_middle

'midday'
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The Enindhilyakwa data thus show us two things: firstly, the frequency of BNCs in a language depends to some extent on the semantic field of the items included in the data base. And secondly, typologically lesser-known languages may reveal new strategies to express complex concepts.

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### How to distinguish between nouns and classifiers in Binominal Naming Constructions? Answers from two Western Amazonian languages

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Western Amazonian languages stand out in showing classifiers that – in addition to the well-established classifier environments – also appear as derivational devices on nouns (Payne 1987; Aikhenvald 2000; Seifart & Payne 2007). Since classifiers are commonly assumed to originate in nouns (Aikhenvald 2000), classifier languages confront us with an analytical problem in the domain of Binominal Naming Constructions (BNCs), i.e. how to distinguish between the derivational use of classifiers on nouns (1)-(2) and noun-noun compounds (3)-(4). The present paper addresses this problem on the basis of primary data collected on Harakmbut (isolate, Peru), e.g. (1) and (3), and Mojeño Trinitario (Arawak, Bolivia), e.g. (2) and (4), two unrelated (and not in contact) Western Amazonian languages. While Mojeño Trinitario will be shown to be a multiple classifier language with an extensive set of classifiers, Harakmbut turns out to show (a small set of) classifiers only, in fewer environments. Yet, both languages will appear to behave strikingly similarly in the domain of BNCs.

- (1) classifier-derived nouns in Harakmbut
  - a) siro-pi metal-CLF:stick 'knife' (cf. Hart 1963: 1)
  - b) siro-pu' metal-CLF:cylindrical;hollow 'metal tube' (cf. Hart 1963: 1)
- (2) classifier-derived nouns in Mojeño Trinitario
  - a) yuk(u)-pi fire-CLF:long;flexible 'candle'
  - b) wray(u)-'a chicken-CLF:oval 'chicken egg'
- (3) noun-noun compounds in Harakmbut
  - a) ndumba-kuwa forest-dog 'bush dog' (Helberg 1984: 252; Tripp 1995: 194)
  - b) äwït-ku giant.otter-head 'giant otter's head; person with giant otter's head'
- (4) noun-noun compounds in Mojeño Trinitario
  - a) mari-chóchoku stone-river.bank 'stony riverbank'
  - b) paku-miro dog-face 'dog's face; person with dog's face'

In this paper, we will discuss how noun-classifier derivation compares to noun-noun compounding at the phonological, prosodic, semantic and syntactic levels in both Harakmbut and Mojeño Trinitario. For example, noun-noun compounds consist of clear "Thing-roots" (Haspelmath 2012) in both languages, with one element being the morphosyntactic and semantic head. In noun-CLF formations, however, classifiers do not really denote a "thing", but rather a shape or quality; they do not contain a head.

As a factor bearing on this analytical problem, we will show that in both languages the noun/classifier distinction is blurred by the fact that there is a class of nouns that share many features with the canonical classifiers. In both languages, these nouns refer to parts of entities, such as bodyparts, cf. (3b) and (4b), or plant parts. Morphologically, these are bound roots, which require affixation to obtain independent nominal status, specifically possessor prefixes in Mojeño Trinitario and (semantically empty) nominalizing prefixes in Harakmbut. Interestingly, in both languages such N-N compounds as (3b) and (4b) can be used as endocentric compounds in their literal sense, but they can also be used exocentrically to refer to a person whose (physical) characteristics resemble those of the referent of the endocentric compound. In Mojeño Trinitario, such exocentric uses take determiners for human referents,

whereas neither component noun refers to a human entity (Harakmbut lacks any formal indication for such uses). More generally, we will examine to what extent these bound nouns can be analysed as incipient classifiers, and formulate diachronic hypotheses informed by our analysis of BNCs.

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### Six ways for nouns to meet nouns in Äiwoo

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The Oceanic language Äiwoo shows (at least) six possible strategies for combining two nominal roots into a complex referring expression:

- 1) **indirect possessive marking** using one of six possessive classifiers; most commonly used for possession proper, but includes what Koptjevskaja-Tamm (2004) calls non-anchoring relations such as purpose: *nabe na nubââ* (bait POSS:FOOD.3MIN shark) 'shark bait'.
- 2) **direct possessive marking** indicated by suffix marking directly on the noun (hence the term 'direct'); found mainly with kinship and body-part terms, but the precise borders with strategy 3 are blurry, cf. below.
- 3) a set of **person-inflected prepositions** *eä*, *nä*, *ngä*, *lä* covering a variety of relations including purpose, origin, part-whole and others (e.g. *nupo eä nubââ* 'shark net, net for sharks', *nyibe lä käi* 'packets of pudding', *sime lä nuumä* 'person from the village'). Wurm (1981) claims a semantic distinction between the different forms of the preposition, but no clear distinctions are apparent in my data; compare e.g. *sime lä nuumä* 'person from the village', *siguwâu eä nuumä* 'young man from the village'
- 4) **full-form bound nouns**, which have the phonological shape of an independent noun, but only occur in construction with another noun. This strategy is found mainly with terms for body parts and plant parts, e.g. *nyiluu nuwotaa* 'my hair' (hair my.head), *nula nyenaa* 'branch' (branch tree).
- 5) **reduced-form bound nouns**, which take a distinct form when combining with another noun (Næss 2006), typically losing the reflex of the Proto Oceanic article \*na which has accreted to many Äiwoo nouns: *nupo* 'net', *nebi* 'bamboo', *po-nebi* 'type of fishing net attached to bamboo sticks', *nyibä* 'basket', *be-nupo* 'string basket'.
- 6) juxtaposition, e.g. tou nyiivä 'stone anchor', naa nuwale 'end [of] rope'

Several of the strategies show formal overlaps. For example, some nouns appear directly possessed (strategy 2) in that they only occur with a suffixed marker of possession, but this marker seems to be identical to the preposition <code>wä/nä/lä</code> (strategy 3), suggesting perhaps an ongoing process of grammaticalisation for certain nouns. Strategy 4) differs from 6) only in that the nouns found in the former never occur without a nominal modifier; while both of these differ from 5) only in the form of the modified noun as compared to that of a corresponding unmodified noun, where one exists. 5) moreover overlaps to some extent with a set of bound nouns more typically modified by verbs or clauses and showing formal similarities with nominalising prefixes (Næss 2006); that is, drawing the line between nounnoun constructions and constructions with more derivation-like properties is challenging.

Many nouns occur with more than one strategy, meaning that the choice of strategy is only to a limited extent determined by the noun itself, depending instead on the precise relation expressed. In this talk, I will map the semantic relations expressed through the different strategies, and the formal and functional relations between the strategies, to determine how Äiwoo distributes different types of semantic relations between nouns across formal strategies.

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# Noun + noun sequences in Lithuanian: medical and legal discourses Vilma Zubaitienė, Gintarė Judžentytė (Vilnius University)

The term 'collocation' was first used by Firth in the 1950s, but only few linguists have researched this phenomenon in scientific Lithuanian. Previous researches were mostly focused on collocations in general Lithuanian and translations (Marcinkevičienė 2010, Volungevičienė 2010). Usually, collocations are studied as lexical units in translation and academic discourse (cf. e.g. Kjær 2007, Miščin 2013, Salazar 2014).

The report deals with NN collocations in medical and legal Lithuanian discourses, specifically lexical collocations (Benson, Benson & Ilson 1986). Lexical collocations are usage-determined or preferred syntagmatic relations between two lexemes in a specific syntactic pattern (Granger & Paquot 2008, 43). *CorALit: the Corpus of Academic Lithuanian* (<a href="http://coralit.lt/en/node/18">http://coralit.lt/en/node/18</a>) was used as a corpus. In addition, bilingual dictionaries (English-Lithuanian and German-Lithuanian) were used as additional material to find the most frequent collocations.

The aim of this research is to investigate the most frequent noun collocations, which occur in Lithuanian medical and legal discourses, and to find out what noun is the base of the collocation and which of them is the second element selected by the base (i.e., the collocate).

Next, we classify collocations according to their structure and semantics. The researched legal and medical discourses reveal different types of constructions. The most common are Mod.GEN Head constructions, e.g., plaučių vėžys lung-Gen.PL cancer-Nom.SG 'lung cancer', teismo byla court-Gen.PL case-Nom.SG 'case'. However, some contexts show N PREP N type, e.g., derybos dėl susitarimo negotiation-Nom.PL due to agreement-Gen.PL ('negotiation of an agreement'), kova su nedarbu fight-Nom.SG with unemployment-Instr.SG ('fight against unemployment'). In addition, these discourses stand out with N + N sequences of 3 or 4 members, e.g., Teisingumo Teismo nuomonė Justice-Gen.SG Court-Gen.SG opinion-Nom.SG ('opinion of the Court of Justice'), medicinos ekspertizės aktas medicine-Gen.SG expertise-Gen.SG report-Nom.SG ('medical report'), teismo nutarimo vykdymo būdas court-Gen.SG decision-Gen.SG enforcement-Gen.SG mode-Nom.SG ('mode of enforcement').

There are many classifications of semantic relations between nouns (cf. e.g. Rosario et al. 2002; Girju et al. 2005; Turney 2006). It was found that, out of the total 35 relations considered, there were 21 in the case of of-genitive (Moldovan et al. 2004). The most frequently occurring relations are:

- PART-WHOLE (*širdies kraujagyslė* heart-Gen.SG vessel-Nom.SG 'cardiovascular', *Teismo narys* Court-Gen.SG member-Nom.SG 'member of the Court'),
- ATTRIBUTE-HOLDER (*širdies nepakankamumas* heart-Gen.SG failure-Nom.SG 'heart failure', *teismo neveiksnumas* Court-Gen.SG incapacity-Nom.SG 'legal incapacity of the Court'),
- POSSESSION (paciento širdis Patient-Gen.SG heart-Nom.SG 'the patient's heart', teismo turtas Court-Gen.SG Estate-Nom.SG 'Court Estate'),
- LOCATION (*širdies ertmė* heart-Gen.SG cavity-Nom.SG 'chambers', *teismo salė* Court-Gen.SG room-Nom.SG 'courtroom'),
- SOURCE (*širdies ritmas* heart-Gen.SG beat-Nom.SG 'heartbeat', *teismo sprendimas* Court-Gen.SG judgment-Nom.SG 'judgment of the Court'), and

• TOPIC (*širdies gydymo metodas* heart-Gen.SG treatment-Gen.SG method-Nom.SG 'heart treatment method', *teismo ekspertizė* Court-Gen.SG expertise-Nom.SG 'forensics').

Therefore, this paper deals with semantic relations between nouns in special legal and medical texts, and with specific legal and medical equivalents (compounds, types of noun phrases) in Baltic (Lithuanian) and Germanic (English, German) languages, e.g., *teismo institucijos* (*courts and tribunals*), *teismo procesas* (*Gerichtsverfahren*). We also establish the list of the most frequent basic nouns in medical and legal discourses on the basis of corpus and vocabulary analysis. We establish why certain nouns occur with a certain noun in a collocation and what semantic fields can be distinguished.

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Complex nominals denoting instruments: a contrastive perspective (ITA, RUS, CMN, JAP)

# Chiara Naccarato (University of Pavia and University of Bergamo) Shanshan Huang (University of Pavia)

The aim of the present paper is to investigate complex nominals denoting instruments in a contrastive perspective, i.e. to compare the strategies employed to form instrument nouns in genetically and typologically different languages, i.e. Italian, Russian, Mandarin Chinese (henceforth Chinese) and Japanese.

In this study, we adopt an onomasiological approach to word-formation (cf. Štekauer 1998, 2005a, 2005b; Grzega 2009), by comparing "patterns apt to express one and the same function" (Rainer 2013: 27). In particular, we adopt the model by Štekauer (1998, 2005a, 2005b), in which naming units are classified according to their onomasiological structure, which normally includes three constituents, i.e. the determining constituent, the determined (actional) constituent and the onomasiological base. These constituents might be all linguistically expressed, such as in  $truck\ driver\ (truck\ =\ determining\ constituent,\ drive\ =\ determined\ constituent,\ -er\ =\ onomasiological\ base), or not, thus giving rise to different onomasiological types.$ 

The analysis is based on four manually built corpora (one for each language) containing comparable texts related to the semantic domain of COOKING (i.e. recipes from online journals and recipe websites). From each corpus, we extracted complex nominals denoting instruments, such as those in examples (1) to (3). By the term "instrument", we refer to any type of kitchenware that can be used to prepare, cook, serve, or store food.

- (1) 'cutting board'
  - a. ITA tagl-ier-e [cut-NMLZ-M.SG]
  - b. RUS *kuchon-n-aja doska* [kitchen-ADJZ-F.SG board]
  - c. CMN cài-băn [vegetable-board]
  - d. JAP mana-ita [fish-board]
- (2) 'meat grinder'
  - a. ITA *trita-carne* [grind-meat]
  - b. RUS *mjas-o-rub-k-a* [meat-LV-grind-NMLZ-F.SG]
  - c. CMN *jiǎo-ròu-jī* [grind-meat-machine]
  - d. JAP niku-hiki-ki [meat-grind-machine]
- (3) 'sugar bowl'
  - a. ITA zuccher-ier-a [sugar-NMLZ-F.SG]
  - b. RUS sachar-nic-a [sugar-NMLZ-F.SG]
  - c. CMN táng-guàn [sugar-vase]
  - d. JAP satoo-ire [sugar-holder]

The complex nominals extracted were classified according to two criteria: the type of word-formation process employed, e.g. derivation (1a, 3a, 3b), compounding (1c, 1d, 2, 3c, 3d) or phrasal compounding (1b); and the onomasiological type, e.g. Onomasiological Type 1, when the base, the determining constituent and the determined constituent are all expressed (2); Onomasiological Type 2, when the determining constituent is not expressed (1a); Onomasiological Type 3, when the determined (actional) constituent is not expressed (1b, 1c, 1d, 3).

The occurrence of a certain onomasiological type seems to be correlated with the type of instrument noun that is formed. When complex nominals denote containers or, more generally, instruments that are not used to carry out a dynamic event, Onomasiological Type 3 is preferred, while Onomasiological Types 1 and 2 are employed more frequently to denote instruments that are used to perform some dynamic actions, such as cutting or grinding.

As regards the type of word-formation process, we found that compounding is the most common strategy in Chinese and Japanese, as we expected. On the contrary, Italian and Russian show a higher number of derived words and phrasal compounds, which are not common in Chinese and Japanese.

The analysis also provides insight into language-specific tendencies in word-formation in regards to the lexical field of instrument nouns, e.g. the abundance of synonymous nominals in Japanese resulting from word-formation processes based on different lexical strata (loanwords vs. native words).

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### Semantic relations in binominal lexemes: A cross-linguistic survey

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This presentation discusses the kinds of semantic relations that occur in binominal lexemes. For the purpose of this paper a binominal lexeme (or 'binominal' for short) is defined as a complex nominal consisting primarily of two nominal constituents. This corresponds to Štekauer's (1998) Onomasiological Type 3, in which the base and the determining element (but not the determined element) are present. More informally, a binominal is a (determinative) noun-noun compound *or its functional equivalent*.

The term binominal lexeme covers a range of construction types, including – but not limited to – [N N], [N PREP N], [N.ADJZ N], [N N.3SG] and [N.CON N], exemplified by Ger. *Eisenbahn*, Fr. *chemin de fer*, Rus. *železnaja doroga*, Tur. *demir yolu* and Heb. *mesilat barzel*, respectively, all of which combine the concepts 'iron' and 'road' to denote the concept 'railway', but without stating the nature of the relation between the nominal constituents.

The nature of this unstated relation as far as noun-noun compounds are concerned has been the subject of much research, especially for English (e.g. Levi 1978; Warren 1978; Ryder 1994; Jackendoff 2010), but also for other languages, including Nizaa (Pepper 2010), French (Bourque 2014) and Norwegian (Eiesland 2016) (see also the individual chapters in Hacken 2016). Using Levi's classification scheme, Bauer & Tarasova (2013) show that the same kinds of semantic relation that are found in English noun-noun compounds also occur in other binominal constructions, such as those involving relational adjectives (e.g. *manual labour*), prenominal possessives (*dog's breakfast*), postnominal possessives (*man-of-war*), neoclassical compounds (*hydromancy*) and blends (*paratroops*).

Rainer (2013) poses the question whether relational adjectives can express "any relation" and answers it in the affirmative after an investigation that takes in genitives in Latin and Slavic, compounds in German, prepositional compounds in Romance languages, the attributivizer construction in Hungarian, and the competition between the *nisba* suffix and the  $fa^{c}il$  pattern used for deriving state adjectives in Arabic. Furthermore, Pepper (2016) shows that in at least one language where there is competition between binominal constructions (in this case, head-initial and head-final compounds), the choice of construction depends on the kind of semantic relation involved.

This paper addresses the question of semantic relations in binominals through a broad cross-linguistic study. The study takes as its starting point a set of 100 complex meanings and investigates the forms used to express them in 100 languages from around the world. Every morphologically complex form is analyzed and all binominals identified. For each binominal, the semantic relation obtaining between its constituents is determined according to the scheme developed by (Bourque 2014), along with the (formal) type of construction.

The following research question are addressed:

- 1. To what extent do the same kinds of semantic relation occur cross-linguistically?
- 2. Where there is competition between binominal constructions, does the semantic relation have any bearing on which construction is chosen?

Preliminary results suggest that certain kinds of semantic relation are universal and that there is often a correlation between the relation and the construction used to express it.

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Combined concepts in language development: Evidence from Swedish

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OBJECTIVE: This study takes a developmental approach to how compounding for expressing combined concepts contrasts with syntactic means (e.g. PPs, APs, Subordinates). Swedish has several patterns for expressing complex nominals that either compete or stand in free variation, and some being more restricted than others (cf. Rainer 2013). Given the assumption that instantiations of available patterns occur in the child's input to different extents, two research questions are posed:

- What complex nominals does the child use to express combined concepts?
- To what extent does the child's use of (novel) compounds for combined concepts contrasts to other available means?

BACKGROUND: Nouns are often claimed to have an advantage in early acquisition (Waxman et al. 2013), and NN compounding emerges early: around age two children decompose NN compounds into head and modifier (Dressler et al. 2010). Children's creativity with language (Gelman & Gottfried 2016) is evidenced by their use of novel word-formation for conceptual combinations. Theoretically, the study agrees with Lynott and Connell (2010) that a conceptual combination is a situated simulation (cf. Barsalou 2003), reconciling linguistic distributional information and embodied information (perception being central), and depends on a wider context for its understanding. Concepts are thus semantically flexible, and their simulations can be more or less deeply grounded (cf. Mahon 2015), with the retrieval of an established compound being less grounded than the constructing of a novel compound. Both head and modifier concepts interact to constrain compound meaning (Lynott & Connell 2010; counter to Gagné & Shoben 1997).

DATA AND ANALYSIS: Spontaneous production data was collected through diary notes from a typically developing, monolingual Swedish child (F), ages 1;9–4;2. As a first step, complex nominals representing combined concepts are extracted from the data and analysed for form and semantics. As a second step, around 300 unique novel word-formations (i.e. non-established), of which most are NN compounds, are analysed in contrast to other available means for expressing a similar content (web counts control for plausibility).

RESULTS AND CONCLUSION: NN compounds predominate in the data, seemingly to the detriment of other options, such as AN-phrases (that by their preference for the IS relation bear resemblance to NN compounds, as claimed by Krott et al. 2009):

- (1) NN blomklänning (3;0) (990 Google hits) 'flower-dress'
- (2) A N blommig klänning (211,000 Google hits) 'flowery-dress'
- (3) N P N klänning med blommor (på) (27,600 Google hits) 'dress with flower-PL (on)'

Since compounds combine phonology and semantics (e.g. Jackendoff 2009), children's early use of compounding — in languages where compounding is an available and profitable option (cf. Corbin 1987; Bauer 2001) — could be cognitively motivated: this study proposes that it is a simpler option to combine concepts into a compound, with an underspecified relation,

instead of using more complex syntactic phrases or derivations. During early stages of language development (around age 2), to concatenate two nouns into a compound could be the preferred pattern. But as their language develops, children will start to use other target-like constructions for combined concepts in parallel to compounding.

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### Provisional schedule

DAY 1, TUE, 12-09	-2017 (afternoon)		
1 = SLOT 21	Steve Pepper & Francesca Masini	pepper.steve@gmail.com francesca.masini@unibo.it	Convenors' introduction
2 = SLOT 22	Bożena Cetnarowska	bozena.cetnarowska@us.edu.pl	Noun+Noun and Noun+adjective juxtapositions in Polish
3 = SLOT 23	Inga Hennecke & Christina Clasmeier	christina.clasmeier@rub.de inga.hennecke@uni-tuebingen.de	Constituent placement in relational adjective constructions
4 = SLOT 24	Arthur Laisis	arthur.laisis@ephe.sorbonne.fr	Some morphological peculiarities of Balto-Slavic binominals and nominal derivatives
5 = SLOT 25	Kristin Kopf	kristin.kopf@uni-mainz.de	The formal redistribution of binominal naming constructions in Early New High German
DAY 2, WED, 13-09	9-2017 (all day)		
6 = SLOT 26	Aslı Gürer	gokselas@boun.edu.tr	Compound Formation in Karachay-Balkar: Implications for the marker -sl
7 = SLOT 27	László Károly	Laszlo.Karoly@lingfil.uu.se	Semantic correlation between binominal constructions and denominal nominals in Turkic
POSTER SESSION	+COFFEE BREAK		
8 = SLOT 28	Marie-Elaine van Egmond	vanegmondm@uni-greifswald.de	Binominal compounds in Enindhilyakwa (AOI, Gunwinyguan, Australia)
9 = SLOT 29	An Van Linden & Françoise Rose	francoise.rose@ish-lyon.cnrs.fr an.vanlinden@kuleuven.be	How to distinguish between nouns and classifiers in Binominal Naming Constructions? Answers from two Western Amazonian languages
10 = SLOT 30	Åshild Næss	ashild.nass@iln.uio.no	Six ways for nouns to meet nouns in Äiwoo
LUNCH BREAK			
11 = SLOT 31	Vilma Zubaitienė & Gintarė Judžentytė	gintare.judzentyte@gmail.com vilma.zubaitiene@gmail.com	Noun + noun sequences in Lithuanian: medical and legal discourses
12 = SLOT 32	Chiara Naccarato & Shanshan Huang	m.naccarato@studenti.unibg.it shanshan.huang01@universitadipavia.it	Complex nominals denoting instruments: a contrastive perspective
13 = SLOT 33	Steve Pepper	pepper.steve@gmail.com	Semantic relations in binominal lexemes: A cross-linguistic survey
COFFEE BREAK			
14 = SLOT 34	Maria Rosenberg	maria.rosenberg@umu.se	Combined concepts in language development: Evidence from Swedish
15 = SLOT 35	Martin Haspelmath	haspelmath@shh.mpg.de	Discussant