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# Lexical Typology and Uralic Linguistics

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## Lexical typology: introduction, tasks, methodology

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#### 1. Typology

1.1 [Croft 2003: 1-4]

- Classification: structural types across languages.
- Generalization: study of patterns that occur systematically across languages.
- Explanation: approach to linguistic theorizing.

## 1.2 [Koptjevskaja-Tamm 2008: 4]

- According to what parameters does a specific phenomenon vary across languages, in what patterns do these parameters (co)-occur?
- What generalizations can be made about attested vs. possible patterns?
- What is universal vs. language particular in a given phenomenon, what phenomena are frequent vs. rare?
- How are various linguistic phenomena distributed across the languages of the world?
- Which phenomena are genetically stable and which are subject to contact-induced change?
- How can the attested distribution of the different patterns across languages be explained?
- How can the attested cross-linguistic patterns / generalizations be explained?

### 2. Lexical typology [Koptjevskaja-Tamm 2008: 5-6]

- What is a possible word, or what can be meant by a word?
- What meanings can and cannot be expressed by a single word in different languages?
- What different meanings can be expressed by one and the same lexeme, by lexemes within one and the same synchronic word family (words linked by derivational relations) or by lexemes historically derived from each other?
- What cross-linguistic patterns are there in lexicon-grammar interaction?
  - See also an outline in [Evans 2011].

### 3. Methodology of lexical typology: various approaches

#### 3.1 Natural semantic metalanguage (NSM)

- [Wierzbicka 1972, 1996; Goddard 1998, 2012; Goddard, Wierzbicka 2007, 2014 etc.]
- Universal semantic primes which cannot be paraphrased in simpler terms<sup>1</sup>.
- Complex meanings are described in terms of the semantic primes => the difference in definitions is the basis for semantic comparison (either in one language or cross-linguistically).
- Example English *rough* vs. Polish *szorstki* [Goddard, Wierzbicka 2007: 779-781]: *«This thing (e.g. bark, cloth) is rough*.

this thing is like this:

if a person's hand moves in some ways when it is touching this thing,

this person can feel something in this hand because of it because of this, this person can know something about this thing

because of this, this person can think like this:

"many small parts of this thing are not like other parts

because of this, if **a part of a person's body** moves in some ways when it is touching this thing

this person can feel something bad in this part because of it"» *«This thing is szorstki (i.e. has a rough, bristly, coarse feel).* 

<sup>&</sup>lt;sup>1</sup> See the list at <u>https://www.griffith.edu.au/humanities-languages/school-languages-linguistics/research/natural-semantic-metalanguage-homepage/what-is-nsm/semantic-primes</u>

this thing is like this:

if a person's hand moves in some ways when it is touching this thing,

this person can feel something in this hand because of it because of this, this person can know something about this thing because of this, this person can think like this:

"some very small parts of this thing are not like the other parts because of this, if a person's hand moves in some ways when it is touching this thing this person can feel something bad in this hand because of it

#### a person can feel something like this if a person's hand moves in some ways when it is touching some parts of a man's face"».

3.2 Stimulus-based approach

- [Berlin, Kay 1969], followed by MPI in Nijmegen [Majid et al. 2007a, b, 2008; Majid 2010, 2015; Ameka, Levinson 2007; Dingemanse 2011].
- Experiments with stimuli perceived by a consultant in different ways (colour chips, pictures, audio- and video recordings, tubes with sth. odorous, etc.).
- Co-expression of the stimuli in each particular language => different patterns of co-expression in different languages.
- Example body parts [Majid 2010: 68]:

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FIGURE 3.3. Grayscale rendition of Color Plate 2. See Color Plate 2 for interpretation. Eight Dutch, Japanese, and Indonesian speakers were asked to color in parts of the body. Their responses were then layered into a single image so that points of consensus could be viewed. The darker the image, the more speakers colored in that part of the body; the lighter the image, the fewer who included that part. These are the results when Dutch speakers were asked to color in the *arm*, Japanese speakers the *ude*, and Indonesian speakers the *tangan*.

#### 3.3 Collocational (frame-based) approach

- [Maisak, Rakhilina (eds.) 2007; Lander et al. 2012; Rakhilina, Reznikova 2013, 2014; Koptjevskaja-Tamm (ed.) 2015; Bricyn et al. (ed.) 2009; Reznikova et al. 2012; Kruglyakova 2010; Kashkin 2013]
- Semantic differences between words (either within one language or cross-linguistically) are studied on the basis of their collocational differences.
- Contexts from the large corpora => their classification and clarification with native speakers => frames (classes of extralinguistic situations involved in lexical oppositions).
- The same set of frames for all the languages in the sample, developed with the addition of each new language => frame-based questionnaires (similar to questionnaires in grammar typology).
- Semantic maps as the way of summarizing the data (see illustrations in [Rakhilina, Reznikova 2014]).
- Example 'sharp', 'pointed', etc. [Kyuseva 2012]:

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Frame 1: knife, saw, axe, scythe, razor, ... => **objects with a functional sharpened blade** (+ no lexical distinction between the sharpness of a saw and an axe within the language sample). Frame 2: needle, nail, arrow, spear, ... => **objects with a functional sharpened end** Frame 3: nose, chin, cap, summit of a mountain, ... => **objects with a sharp shape** 

	English	Russian	German	Izhma Komi
Frame 1 (blade)	sharp	ostryj	scharf	lečyd
Frame 2 (end)	sharp	ostryj	scharf	jues
Frame 3 (shape)	sharp, pointed	ostryj	spitz	jues

+ some intermediate cases, e. g. pointed natural objects co-expressed either with artifacts having a sharp point or with objects having sharp form.

+ metaphors and their cross-linguistic patterns (cf. English *sharp sight, sharp contrast, sharp mind*, etc.).

#### 4. Language sampling in lexical typology: some remarks

- Grammatical typology: hundreds of languages from different families and areas in large projects, often however studied via secondary sources (e.g. grammars).
- Lexical typology: secondary sources (primarily dictionaries) are often unreliable, lacking much necessary information. Manual laborious research with consultants and corpora => usually smaller samples (upon average, 15-20 languages).
- But: let us add more languages to the basis created in the existing projects!
- Closely related languages are just as valuable for lexical typology as unrelated ones, since word meanings are changing rapidly, see [Rakhilina, Prokofieva 2004, 2005; Majid et al. 2007b; Kashkin 2013].

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## BASIC NOTIONS ON LEXICOLOGY

## AND LEXICAL SEMANTICS

(with a minimal consideration to language typology)

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1st package (2)

This sketch aims to provide a short practical description of some basic topics and terminology of lexicology, lexical semantics and diachronic onomasiology using in works on lexical typology. First of all, it concerns for instance the concept ~ meaning ~ sense distinction, types and lists of formal and cognitive relations. This introduction can serve as basis for the further investigation on lexical typology.

Content

- 1. Introduction: the basic terms
- 2. Concept, meaning and sense
- 4. Lexical fields and semantic domains
- 5. Meaning variations
- 6. Lexical relations
- 7. Lexical motivation
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- 9. Exercises (deadline: 7th April)

## **1. INTRODUCTION**

#### **1.1. LEXICOLOGY**

>>> the term: Greek origin, *lexis* 'word', *logos* 'science'.
>>> definition: a vocabulary (Lexis) of the language and characteristic feature of words and word groups

The systematic study of all aspects of words and vocabularies. It includes lexical semantics, morphology, phonological and graphological properties of words, etymology and processes of change over time, stylistic and literary aspects, lexical characteristics of authors, genres, types of discourse, dialects and registers, structures in the vocabulary, and typology of word structures. This grouping of fields of study is not common in the English-speaking world, but is well-established in mainland Europe. (Cruse 2006)

#### **1.2. LEXICAL SEMANTICS**

The systematic study of meaning-related properties of words. Exactly what is included in the field is likely to vary from scholar to scholar, but central topics include: how best to specify the meaning of a word; paradigmatic relations of meaning such as synonymy, antonymy, and hyponymy; syntagmatic relations of meaning, including selectional restrictions; structures in the lexicon such as taxonomic hierarchies; change of word meaning over time; and processes of meaning extension, such as metaphor and metonymy. Lexical semantics is usually contrasted with grammatical semantics, and may exclude aspects of meaning treated under pragmatics. (Cruse 2006)

#### **1.3. ITEMS**

It is usual to distinguish four definitions of 'word':

- ortographic: based on the written form
- phonological: based on the pronunvitation
- grammatical: based on position in phrases
- lexical.

Lexicology deals with lexical words. However, a lexical word can labeled in different way depending on its status and characteristics.

#### Lexical word (content word, full word)

= is a lexical item which has semantic content. It has a readily identifiable meaning.

#### Citation form (dictionary form)

= lexical entry: pull together all the information on a headword

= is the particular grammatical form of it which we use in naming it, talking about it, and entering it in a dictionary.

#### Lexeme:

= lexical item is an abstract unit of the lexicon (vocabulary) of a language, with a more or less readily identifiable meaning or function. A lexical item is a word in the sense in which a dictionary contains words.

#### Word-form

word form, the physical unit or concrete realisation, either the orthographical word (the written form) or the phonological word (the uttered or transcribed form).

Function word (grammatical word, empty word)

= has little or no identifiable meaning, but has one or more grammatical functions.

#### **1.4. RELATED DISCIPLINES**

(Vachek 1973)

#### Lexicology

the semantic or morphological study of the linguistic stock of a language, particularly as to content, meaning or use of the individual forms; the study of the words in a language, their meaning and use, their derivation and history.

#### Lexicography

the listing and describing of the words or morphemes of a language, particularly from the standpoint of meaning, with the possible addition of derivation and history." (Mario Pei, quoted by Vachek)

#### Lexicology, unlike lexicography,

is concerned with the study of the regularities which can be ascertained in the vocabulary of the examined language, of the mutual relations of the individual items of that vocabulary, in short, in discovering its structure.

#### Lexicography

is descriptive; registration of the units of the vocabulary of the given language according to some fixed principle formal (alphabetical order) and dictated by considerations of content (arrangement according to the semantic relationship - *dictionaries of ideas*).

#### 1.5 Approaches to



"Semasiological approach which studies the polysemy of the lexicon from a synchronic and diachronic viewpoint, thus including also heterosemy (i.e. the different but related meanings of a given morpheme associated with distinct grammatical contexts, e.g. derivation; cf. Lichtenberk 1991) and semantic shift/change." (Vanhove)

"Onomasiology departs from an idea, a concept or a referent and looks for words that were, are, or could be, used for it. Many, if not all, linguists will every once in a while have heard a layperson ask "how should we express X?" and "why is X called this way?" Further, an important task of modern societies is knowledge management, which includes the question of how to transfer knowledge into language (including expert-layperson communication). Style guides sell well, too. (Grzega)

A typical semasiological question is: Which meanings does this word have? A semasiological perspective is more the perspective of a listener who is looking for the meaning of a word s/he has heard. And as speaking and listening go hand in hand in conversation, onomasiology and semasiology must go hand in hand in research about the changing relation between words and concepts. We could say that onomasiology and semasiology approach the same problem from different sides. (Grzega)

## 2. CONCEPTS AND MEANINGS AND SENSES

(Murphy 2010, Cruse 2006, Vorobey)

**Concept** = mental representation as a part of our world knowledge.

= is a word sense, but usual and global, because it can be expressed by different words and, thus, it is not connected with a particular word, and is determined by culture. Concept that exists in mind and is expressed in language is a mediator between a collaborative and an individual mind.

Not all concepts are lexicalized: not all concepts have a name. E.g. there is no one word form expressing the concept THINGS TO PACK FOR TRAIN JOURNEY TO SIBERIA.

A lexical meaning or sense connects the word form to the appropriate concept.

**Meaning** = is acommon, usual content that native speakers connect with a particular sound.

#### Sense = intension

= is an occasional, depending on context content that is ascribed to this word each time it is expressed.

= is some abstract representation of what the referents of a word have in common: the qualities that something needs to have in order for us to apply a certain label to it.

E.g. sense of *dog* tells us how to tell which things to call *dog* (i.e. four-legged mammals that bark)

A distinct meaning which has an established association with a given word-form is called a (lexical) sense. For a word-form to be described as having more than one sense, it must satisfy the criteria for ambiguity. Established senses normally have separate definitions in a dictionary. (Cruse 2006)

## **3. LEXICAL FIELDS AND SEMANTIC DOMAINS**

= lexical fields are the realization of the abstract notion of semantic fields The words which are part of a lexical field enter into sense or meaning relationships with one another. Semantic fields contain concepts, lexical fields contain real words.

#### 3.1. Definition (Lutzeier 2006)

In Lexicology, Semantics and Cognitive Linguistics:

Lexical fields are a useful tool for holistic approaches about lexical meaning, structures of the vocabulary and mental lexicon as well as issues around categorization.

In Lexicography:

The codification of the vocabulary of a language can be done in several different formats, and the organization of entries around lexical fields is one of them and leads to specialized dictionaries.

#### 3.2. Application (Lutzeier 2006)

Fields have a position somewhere between the individual lexical element and the whole lexicon, i.e., fields build relevant parts of the lexicon and make a contribution to the structuring of the lexicon.

Fields and individual words have in common that they are part of the lexicon. Fields and the lexicon have in common that they are constituted from words.

Fields are (higher level) signs and therefore comprise a form level as well as a content level.

Each element of the field receives its position in contradistinction and interconnection with other elements of the field. In other words, fields help to establish the senses of individual elements and therefore have to be seen as part of a semasiological approach.

Each lexical field deals with a particular conceptual domain and therefore can be seen as part of an onomasiological approach.

## 4. MEANING VARIATIONS

(Murphy 2010: 91)



(zeugma or syllepsis is a sentence in which two different senses of an ambiguous word are "activated" at the same time, a sin

John had a *case* of beer and *another of measless*.

The use of *other of measless* highlights the ambiguity of *case*, since another refers back to *case*, but is meant to be interpreted using a different sense of *case* ('instance of a disease') than the first sense ('box containing a certain number of items') we come across in the sentence. So this word is ambiguous. Murphy 2010: 86-87)

## **5. LEXICAL RELATIONS**

(Murphy 2010, Cruse 2006, Croft – Cruse 2004)

Lexical relations are semantic and formal, referring relations between meanings and relation between forms. There are two types of semantic relations:

- I. **syntagmatic** relations: relations between words that go together in a syntactic structure, like *ship* 's and *captain* 
  - a. horizontal
- II. **paradigmatic** relations: words belonging to the same word class and share some characteristics
  - a. vertical
  - b. usually substitutable for each other (hold between items which can occupy the same position in a grammatical structure)
  - c. semantic paradigms: sharing many properties of senses, but differing in some
    - i. e.g. basic color terms
      - a. types of paradigmatic relations: **synonymy, hyponymy/hyperonymy, cohyponymy (lexical contrast), antonymy**



#### **synonymy** (Murphy 2010: 110-113)

= relation of having (nearly) same meaning. The substitutability test is used to determine whether two words are synonyms. Words are substitutable if there is no change int he meaning of a sentence when one word is substituted for the other. If the truth of (i) entails truth of (ii) and vice versa, then we have evidence that person and human are synonyms:

- (i) a person is standing beside me
- (ii) a human is standing beside me

#### antonymy (Croft – Cruse 2004: 169)

They are adjectives or stative verbs.

They denote properties construed as varying degree.

They are counterdirectional int hat one term when intensified denotes a higher value of the relevant property, while the other term when intensified denotes a lower value.

#### lexical hierarchy (taxonomy) (Cruse 2006):

A grouping of lexical items whose meanings are related in a way that can be represented by means of a 'tree-diagram'. There are two main sorts of lexical hierarchy, which differ in respect of their constitutive sense relations. The first sort is the 'taxonomy' or 'classificatory hierarchy', in which the vertical relation is taxonymy (a variety of hyponymy) and the horizontal relation is co-taxonymy (a variety of incompatibility).

#### hyponymy (Cruse 2006):

This relation is usually explained in terms of inclusion, but there are two ways of looking at this. Thinking of categories of things in the world (the extensional perspective), the category of animals includes the category of dogs, so that if something is a dog it is necessarily an animal. But thinking of meanings (the intensional perspective), the meaning of dog includes the meaning of animal. The term in a relation of hyponymy associated with the more inclusive category (flower, animal) is called the 'hyperonym' (also often called the 'superordinate') and the included category (daffodil, dog) is the 'hyponym'. Notice that a word may be a hyponym of one word and a hyperonym of another: dog is a hyponym of animal, but a hyperonym of collie. (Hyponymy.) It is common for a hyperonym to have a set of incompatible hyponyms. This is the basis of a taxonomic hierarchy:

peronym	Hyponyms
imal	dog, cat, cow, camel, lion, giraffe,
uit	apple, orange, banana, plum,
20	oak, ash, yew, pine, sycamore, willow,
imal uit ve	dog, cat, cow, camel, lion, giraffe, apple, orange, banana, plum, oak, ash, yew, pine, sycamore, willow,

(Murphy 2010: 113-115, Cruse 2006)

#### meronymy

= 'part-whole' relation (e.g. *finger: hand, nose: face, spoke: wheel, blade: knife, hard* 

disk: computer, page: book)

The word referring to the part is called the meronym.

The word referring to the whole is called the **holonym**.

The names of sister parts of the same whole are called **comeronyms**. Notice that this is a relational notion: a word may be a meronym in relation to a second word, but a holonym in relation to a third. Thus *finger* is a meronym of *hand*, but a *holonym* of *knuckle* and *fingernail*.

(Meronymy must not be confused with hyponymy.)

(Murphy 2010, Cruse 2006)

#### + !!! CONCEPTUAL HIERARCHIES IN DIACHRONIC STUDIES:

(>>> 7.2!)

#### taxonomy

= relations between concepts which are more or less similar exhibiting a number of common features (e.g. TIGER, LION, LEOPARD, PUMA) so that they can be subordinated to a more general concept which logically includes them (FELINE or CAT) (Koch 2001: 1144)

#### engynomy

= a type of conceptual hierarchy vs. taxonomic hierarchy (Koch 2001: 1144):

Engonymic relations are: (a) contiguity relations between a conceptual/perceptual frame (semantic domain) and its elements or (b) contiguity relation between elements of the same frame (domain), for instance:

- (a) tree on the one hand and fruit, wood, to fell ont he other,
- (b) fruit wood, wood to fell etc.



!!! A distinction between hyponymy as a word-specific, inra-linguistic relationship and taxonomy, a relation between concepts; relations of taxonomy belonging to our encyclopedic knowledge of concepts, whereas hyponymy, describe relations word-specific meanings.

## 5.1. Inventory of semantic relations

(Koch 2008, Koch - Marzo 2007, Blank 2001, Krischke 2009)

Examples see in Blank 2001.

Ten (see in Blank 2001) associative relations is used for the lexicon and for the creation of new meaning (semantic change) and new lexemes. The main types are:

**identity** = an extreme case of similarity (~ tautology)

**contiguity** The general definition - as cited many times on the web as well - "a contiguity is a continuous mass, or a series of things in contact or in proximity". Metonymy is identified among the imaginative capacities of cognition (Langacker 1993). Metonymy is responsible for a great proportion of the cases of regular polysemy (Cruse 2000: 211). Relation of contiguity can be spatial, temporal, part/whole, casual etc.

= the relationship between frames and their elements, or between two or more elements of the same frame (metonymic relation)

#### metaphorical similarity

= a the type of similarity which – deliberately cutting across frames and taxonomies – maps concepts on to others,

(Croft - Cruse 2004: 194-204).

#### cotaxonomic similarity

as the type of similarity which connects concepts of the same hierarchical level within a taxonomy

#### taxonomic superordination

as for example thumb–finger or ring finger–finger. The taxonomically superordinate concept emphasizes the similarity ( $\beta$ ) between subordinate concepts at the expense of at least some of the contiguities ( $\alpha$ ) specific to them (part-whole relationships, properties, etc.).

#### taxonomic subordination

the reverse of taxonomic superordination,

In relation to the superordinate concept the taxonomically subordinate concept foregrounds contiguities (part-whole relationships, properties, etc.) specific to the subordinate concepts and backgrounds similarity with concepts that are taxonomically at the same level

## **5.2. Inventory of formal relations**

	in Ur	alic languages
formal identity	(change of meaning)	typical
conversion	(change of word class)	typical
tone change		not relevant
reduplication	(= doubling an entire word or part of a word)	not typical
number change		not typical
gender change		not relevant
voice change		not typical
> suffixation	typical	
> preffixation	not typical	
compound		typical
blending		typical
clipping	(= reduction of syllables in a word)	not typical
coinage		
acronyms	(= new words fored from the initial letters of a set	of words)
serial verb		not typical
eponym	(= new words based on names of person/place)	not typical
borrowing		typical
calque	(loan translation)	typical

•••

## **6. LEXICAL MOTIVATION**

(Koch 2001, Blank 2001, Szeverényi 2014)

**Motivation** = denote the relationship between the phonetic or morphemic composition and structural pattern of the word on the one hand, and its meaning on the other.

• motivational square



( $L_1$  = source form,  $L_2$  = target form,  $C_1$  = source concept,  $C_2$  = target concept)

Where C1 is in cognitive relation with C2, L1 is in formal relation with L2. We must classify both the cognitive relation (C1>C2) and the formal relation (L1>L2), then systematize the classifications of concepts and forms. At last we will classify the pathways, i.e. the kind of tendencies (universal, culture-specific etc.) that can be established.

Types of (relative) lexical motivation:

• onomatopoeia ('phonetic' motivation)



motivational square for onomatopoeia (Koch 2001)

...where  $A_1$  is an acoustic phenomenon:  $L_1$  is directly connected with  $A_1$  by a relation of phonological similarity (iconicity)

#### Examples:

 $L_1 =$  Hun. *horkol* 'to snore' = L1 is directly connected with A1 (where A1 an acoustic phenomenon) by a relation of phonological similarity.

 $L_1 =$  Hun. *kakukk*, Fin. *käki* = a non-acoustic concept (C<sub>1</sub>) stands in a relation of contiguity to the acoustic phenomenon (A<sub>2</sub>). It is only due to this motivation that L1 is phonologically similar to A2 (Koch 2001: 1157)

"secondary" onomatopoeia:

 $L_1$  = Hun. *kicsi*, Fin. *pikku* = does not designate an acoustic phenomenon, but a concept  $C_1$  belonging to another perceptual domain can be explained

• word-formation ('morphological' motivation)

= the relation between the signifiants of  $L_1$  and  $L_2$  can be described in terms of formal contiguity as well as formal similarity. Formal contiguity is here to be understood as a relation of part ( $L_2$ ) to whole ( $L_1$ ). This kind of similarity between  $L_2$  and corresponding portion of the signifiant of  $L_1$ , since total formal dissimilarity (e.g.  $L_1$  *dairy*,  $L_2$  *milk*) produces total **opacity**. There are different types of formal contiguity, such as compound, derivation, idiom etc (Koch 2001: 1157).

• metaphor, metonymy ('semantic' motivation)

= implies a direct connection between the central and marginal meanings of the word. It is based on co-existence of direct and figurative meanings of the same word, e.g. butterfly - 1 insect; 2) showy and frivolous person. (= metaphorical extension of the direct meaning) (Koch 2001: 1157).

See example 1-2 below.

#### **Typical research questions:**

- How many words of a given language are motivated?
- Have different languages / language types different proportions of motivated words?
- How are the motivated word motivated, i.e. which formal and cognitive relations are involved in different languages?

Nganasan					
example 1:					
forms:	L1: basa	>> s	emantic change >>	L2: basa	
	-			<b>→</b>	
concepts:	C1: IRON,	METAL >> c	ontiguity >>	C2: MONEY	
		(Mater	al for Object)		
example 2:					
forms:	L1: ŋənduj	>> c	ompounding >>	L2: tuu ŋənduj	
				<b>→</b>	
concepts:	C1: A KIN	D OF BOAT	>> similarity >>	C2: STEAMBOAT	,
				STEAMSHIP	
		>> taxonon	nic subordination >>		
			(Tuu :	is the genitive form of tuj, fire'.	)
			You can se	e more: www.hengon.arts.u-szeged.h	u

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## 8. EXERCISES

Here are six lexemes of two groups with meaning 'leaf' and meaning 'flag' from Hungarian, Finnish and German language:

1.	Hun. <i>levél</i>	Fi. <i>lehti</i>	Ger. das Blatt	'leaf'
2.	Hun. <i>zászló</i>	Fi. <i>lippu</i>	Ger. das Flagge	'flag'

#### Task:

Choose two lexemes of one group (e.g. *zászló* and *lippu*) and describe/establish/find/examine (if there are):

- 1. the paradigmatic relations of these items,
- 2. some syntagmatic relations of these items,
- 3. the lexical field(s) of these items,
- 4. the semantic domain(s) of these items,
- 5. the taxonomy of these items,
- 6. some synonyms of these items,
- 7. some polysems of these items,
- 8. meronyms/holonyms of these items,
- 9. homonyms of these items,
- 10. etymology/origin of these lexemes,
- 11. items where the source of lexicalization are these lexemes (motivation)!

#### Q:

Compare the data of the two chosen languages!

Are there any special, individual representation or can be established parallel/similar features?

(Please, send the answers in word or pdf!)

## Lexical typology in historical perspective

## (An example from body part terminology)

INFUSE - e-learning /March 2016

1st package (3)

#### The main questions of the lexico-typological investigation of body-part terms:

What body-part concepts are encoded as words across languages?

What distinctions are made in the systems of body-part terms?

And what factors underlie them?

(Koptjevskaja-Tamm)

#### **<u>1. The case of the upper limb:</u>**

The major segments are 'from the fingertips to the wrist' [HAND], and 'from the fingertips or from the wrist to the shoulder' [ARM].

In a sample of 617 languages, 228 languages use the same word for 'hand'/'arm' (e.g.: Russian *ruka*), and 389 languages use different words for the segments mentioned above, e.g.: English *hand/arm*. Cf.:

Differentiation: one word denotes 'hand' and another, different word denotes '	'arm' 389
--	-----------

Identity: a single word denotes both 'hand' and 'arm'	228

617

Total:

(Brown 2013)

E.g.:

#### Table 1.

English	Italian	Ruman.	Japan.	Russ.	Gurma
hand	mano	mina	ude	ruka	пи
arm	braccio	brat	te		

(Koptjevskaja-Tamm)

#### The possible explanation:

The association between values and latitudinal location was first observed by Witkowski and Brown (1985). These authors propose that the existence of extensive wearing apparel in human groups negatively influences the occurrence of upper limb polysemy. The presence of tailored clothing covering the arms greatly increases the distinctiveness of arm parts and renders more likely their labeling by separate terms. In addition, ancillary apparel such as gloves and mittens also increases the salience of arm parts. Since nonequatorial zones where cold weather is frequent are usually associated with the presence of tailored clothing and other arm gear, languages spoken in these areas are significantly more inclined to lexically distinguish 'hand' and 'arm' than those spoken in equatorial zones. (Brown 2013)

Finno-Ugric languages:

E.g.: Hungarian: *kéz - kar* Finnish: *käsi - käsivarsi* Estonian: *käsi - käsivars* Udmurt: *ki - suj* ?Differentiation ------Mordvin: *ked*' Mansi: *kāt* Khanty: *još* ?Identity

#### **Questions:**

Is the contrast of Hungarian *kéz* vs. *kar* or Finnish and Estonian *käsi* vs. *käsivars(i)* or Udmurt *ki* vs. *suj* the same as the contrast of English *hand* vs. *arm*?

The meaning of the words:

English: *hand* ' from the fingertips to the wrist' [HAND] / *arm* 'from the wrist to the shoulder' [ARM]

Hungarian, Finnish, Estonian, Udmurt: *kéz, käsi, ki*: 'from the fingertips to the shoulder' AND 'from the fingertips to the wrist'

 $\rightarrow$  not [HAND]

The morphology of the words:

primer lexemes (hand, käsi) vs. secunder lexemes (käsivarsi)

The words for [ARM] are secunder lexemes morphologically.

The origin of the words:

Hungarian kéz (FU \*käte) vs. kar (Turkish loanword)

#### **Conclusion**:

Finno-Ugric languages :

**identity** (a single word denotes both 'hand' and 'arm')

The [ARM] words are usually innovations (compound words, loanwords)

?? Udmurt *suj* 'arm' < U *soja* U 'arm -> sleeve '

(Cf.: <a href="http://www.uralonet.nytud.hu/eintrag.cgi?id\_eintrag=902">http://www.uralonet.nytud.hu/eintrag.cgi?id\_eintrag=902</a>)

#### 2. Implication 1 in connection with the segmentation of upper limb:

If in a given language there is a separate term for 'leg' as opposed to 'foot', then there is also a term for 'arm' as opposed to 'hand'. (Brown 1976, Andersen 1978, Moravcsik 2013: 20).

(1) leg/foot  $\rightarrow$  hand/arm (English) - differentiation

(2) ruka  $\rightarrow$  noga (Russian) - identity

Finno-Ugric languages: identity

Finnish: käsi (+ käsivarsi) - jalka

Estonian: käsi (+ käsivars) - jalg

Hungarian: kéz (+ kar) - láb

Udmurt: *ki (+ suj) - pid* Mordvin: *ked' - pil'ge* Mansi: *kāt - lāyl* Khanty: *još - kur* 

etc.

#### 3. Implication 2 in connection with the segmentation of the limbs:

If in a given language there is a separate term for 'arm' as opposed to 'hand' and for 'leg' as opposed to 'foot', then there is also separate terms for the digits of the hand and foot: 'finger'/'toe'. (It holds as a tendency.) (Liston 1972)

(1) hand/arm, leg/foot $\rightarrow$ finger/toe (English)	- differentiation
(2) <i>ruka</i> , <i>noga</i> $\rightarrow$ <i>palec</i> (Russian)	- identity

? Finno-Ugric languages

#### Table 2.

English	Turkish	Rumanian	Estonian	Japanese	Khalkha
					Mongolian
hand	el	mină	käsi	te	
					gar
arm	kol	brat	käsi(vars)	ude	_
Cont	1				
JOOT	ауак	nicion	iala	achi	<i>l</i> , #1
1	1 1	picior	Jaig	asni	noi
leg	bacak				
finger			sõrm		
	parmak	deget		yubi	huruu
toe			varvas		

(http://www.ling.su.se/polopoly\_fs/1.196379.1403771108!/menu/standard/file/MKT%2BER %2BMV.pdf)

#### **Exercises:**

Complete Table 2. with Uralic languages' data!

Describe the patterns of some Uralic languages! Do they coincide with the tendencies of lexical typology?

If not, can you find explanations for the deviation using the historical perspective?

What do you think: is it possible / accepted to use the findings of (lexical) typology in language diachrony?

(Use the data of Uralonet if needed! >>> <u>http://www.uralonet.nytud.hu/</u>)

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## **METHODS, QUESTIONNAIRES**

(Preparation for the Summer School)

PACKAGE 2-1 INFUSE – e-learning /April 2016

#### 1. Lexicology, lexicography and somewhat else

It seems so easy to collect words. Asking words from native speakers and collecting vocabulary is useful, important, but not sufficient to do lexical typology. As lexicology and lexical typology focuses on meanings of lexical items, fieldwork methods concentrates on (lexical) semantics:

"In language description, the meaning of utterances must be adequately established to conduct lexical, morphological, and syntactic analysis. Therefore, semantics, the study of meaning, is an integral part of descriptive linguistic field projects." (Chelliah – Reuse 2011: 413)

In this section, we discuss how questionnaires on (lexical) semantics can be used for lexical typological investigations. Points from 2 to 7 contains mostly quotations from the fundamental works on linguistic fieldworks with a special interest to organization of the lexicon.

#### 2. A few words on the fieldworks method (Austin 2014)

There are several fieldwork methods and each has its own advantages and disadvantages:

- elicitation (=the act of obtaining language data from another person)
- staged communication
- participant observation

**Contextualising elicitation**: Speakers are asked to comment on or provide contexts for a given word/construction.

Translation equivalent:	Speakers are asked to translate a given word/utterance.
Judgement:	Speakers are asked to evaluate the acceptability/grammaticality of a given form.

Fieldwork research in (lexical) semantics can assume a variety of different forms as part of the language documentation process including elicitation, speech recordings, or questionnaires.

#### 3. The role of STIMULI for structured language elicitation (Rosen et al. 2012: 135–137)

Structured language elicitation tasks that use **stimulus** materials are now an integral part of linguistic research, and provide an important complement to more traditional corpus and elicitation methods of language description and documentation.

A major goal of all such stimulus types is to provide data that is at the same time **naturalistic** and parallel, and which is as useful in giving insights into a single language as it is in enabling cross-linguistic comparison.

Important examples of such tasks include investigation of the encoding and expression of particular semantic domains or relationships between these domains. A wealth of stimuli have been developed that support detailed examination of abstract comparative topics such as event structure, narrative structures and practices, and relationships between linguistic categories and perceptual experience.

**Linguistic stimuli** (as opposed to, e.g., pictorial stimuli) include **translation**, **questionnaire**, and **explicit translation** tasks. These are very valuable tools for within-language study and cross-linguistic comparison, but also risk producing stilted responses that are strongly affected by meta-linguistic judgments and problems of translational non-equivalence. The alternative, **non-linguistic stimuli materials**, can be broadly divided into three types:

(a) those that encourage extended narrative production, for example, through asking participants to tell a depicted story (e.g., the Pear and Frog stories),

(b) those that require people to describe, categorize, and/or compare sets of nonlinguistic stimuli (e.g., color chips, pictures of spatial relations),

(c) those that elicit dialogic negotiation.

Many tasks are designed to combine more than one of these elements. For example, instead of simply asking individuals to verbally process materials in a certain way (e.g., naming, comparing), one can ask a pair or group of participants to perform a problem-solving or matching task using the stimuli in.

The picture-sequencing activity described here aims to combine all three elements in the course of a single task, while at the same time generating differences in known vs. new information among different participants. As far as content is concerned, it is particularly focused on obtaining rich materials relevant to the far-reaching domain of social cognition— whether manifested through the depictions of events, relationships, and mind-contents of characters (particularly relevant to task type a), through alterations to the mental representations of narrator and audience through time (task type b), or to negotiations, mutual adjustments, footing relations, and speech acts between the participants (task type c). Ideally, the configuration allows language fieldworkers to record descriptive and interactive data in a structured situation that allows for inter- and intra-language comparison, but is nevertheless spontaneous, informal, and sympathetically pitched. The activity does not, however, set up a single tightly controlled investigation space, and is designed as a "broad-spectrum" task rather

than as an exhaustive trawl through differing points in a given semantic domain. The "rules" of the picture-sequencing are quite flexible and open-ended, and the same materials can be used for different activities (see also Hill 2011 concerning the combined use of more rigorously constrained and more freely associative stimuli and tasks).

#### 4. Getting vocabulary

"Collecting antonyms, converses, and hyponyms at the same time as a lexical item can be useful. For example, when you ask for 'little', ask for its opposite at the same time. (Don't just ask for the English opposite, in this case 'big', ask for the 'opposite') You may also want to try to explore word formation devices and their semantic relationships fairly early in the documentation project (for example, asking for 'very little', 'littler', and 'littlest', as well as just 'little')." (Browen 2015: 122)

Some consultants are happy being asked for translation equivalents of lexical items in the contact language. However, this approach has pitfalls (Browen 2015: 123):

- it's surprisingly difficult to do, especially if the vocabulary is esoteric. Don't worry if your consultant can't remember a word. You can always come back to it later. It's easy for a person to forget the word for something if they are put on the spot.
- it can lead to misleading information if the items are not exact equivalences.

That is, the process of data gathering lends itself to consultants' giving short answers and direct equivalences, which can lead to underestimating the nuances of the meanings in the target language.

#### 5. Lexical Semantics (Chelliah – Reuse 2011: 413–415)

As part of a language description or documentation project, the fieldworker may want to investigate how the words of a language are related. One way to do this is to find lexical fields which group words together.

Grouping can be based on:

- semantic similarity,
  - $\circ~$  e.g. a possible lexical field might be a set of color terms or a set of kinship terms.
- word groups is hierarchically, identifying a superordinate term (a hyponym) and related subordinate terms (hypernyms),
  - o e.g. superordinate bird, and subordinate robin, pigeon, eagle, and peacock.

Such word nets are useful for semantic decomposition and morphological analysis. When semantically similar words are grouped together in word nets, the analyst may find the same morphology or word structure repeated in the grouped words. The meaning of the morpheme can be more easily arrived at because there will be multiple examples from which to extrapolate. Other word relationships of interest are synonomy, homophony, antonymy, and polysemy. Homophony and polysemy, for instance, become important when glossing morphemes and compiling word lists or dictionaries. Consider this set of examples of the English word run from Saeed (2009:60).

- 1. I go for a **run** every morning.
- 2. The tail-end batsmen added a single **run** before lunch.
- 3. The ball-player hit a home **run**.
- 4. We took the new car for a **run**.
- 5. He built a new **run** for his chickens.
- 6. There's been a **run** on the dollar.
- 7. The bears are here for the salmon **run**.

#### 6. Pitfalls

Field linguistics, and the whole project of language documentation, is committed to capturing and preserving, as far as possible, indigenous systems of knowledge and cognition. In our opinion, though, linguists are usually not prepared to face up to the simple fact that indigenous perspectives cannot be faithfully portrayed using complex English-specific (often Latinate) vocabulary. To ensure that "endangered concepts" are preserved for a wider audience (as part of the common human heritage), it may be necessary for them to be described in a widely accessible language such as English, i.e. in English words, but it is not necessary for these words to be technical or sophisticated Latinate English. Trying to explicate indigenous concepts using complex and untranslatable English words necessarily imposes an Anglocentric and/or Eurocentric perspective. (Evans – Sasse)

Bowern 2015: 128-130:

It is very difficult to know whether the inferences that you have drawn about the meaning of a word are the same as your consultants' inferences. Discovering what a word or sentence means is not a trivial task! Here are some commonly encountered problems specific to lexicographic work.

#### **Polysemy and homophony**

Don't ever assume you've got a complete description of a word's meanings. For example, if someone tells you that Eastern Armenian  $t^{h}ert$  means 'sheet of paper', don't assume that this is the only meaning of the word (in this case, the word also means 'newspaper', but this was not the context in which the word was originally elicited). Sometimes a consultant will volunteer multiple meanings. It can be worth asking whether a word has any other meanings, but the answer to this question is not necessarily reliable.

Sometimes consultants will say that two homonyms sound different. If you ask whether two words are the 'same' (with the intention of discovering if they are homonyms or a minimal pair), the answer tends to be 'no' if the words have very different meanings, whether or not
they are homonyms. A less ambiguous question to ask is 'are these the same word, or are they different words which happen to sound the same?' – that will elicit the consultant's feelings about polysemy versus homonymy, and will reveal whether the words are not in fact homonymous and you have made a transcription error. Of course, this discussion also presupposes that a 'meaning' is a straightforward aspect of a word to elicit, and even assumes that meaning is constant across speakers. There are all sorts of factors that affect how a researcher can approach the task of describing meaning, and (like other aspects of linguistics) how reliable the resulting data is likely to be.

# **Descriptions instead of definitions** (Bowern 2015)

Consultants will often give a description of when a word might be used, which is not the same as the meaning of the word itself. Consider the following Bardi word:

*manbin* 'soft rain' 'dry season rain'

In Aklif (1999), manbin is given as 'soft rain'. In fact, a more accurate gloss would be 'dry season rain' (that is, rain that falls in the dry season). Such rain is usually light (in contrast to the heavy wet season storms), so the definition is not incorrect, but it is not the core meaning of the word. After all, light rain in the wet season is not manbin. A further example from Yan-nhaŋu is given below:

*ba<u>l</u>gurryu* 'waistband' 'from string'

Here the 'real' meaning of this word is 'from string'. It is the word balgurr 'string' in the instrumental case. A waistband is an example of something that is made from string. Subsequent elicitation showed that the original gloss was too specific, and implied that the term had been lexicalised, whereas in fact it is simply a regular noun, not one in which case has been used in lexical derivation. In other cases, a word may be both a descriptive item and have a more abstract meaning. For example, in Yan-nhaŋu maŋutji-bu means both 'something associated with eyes' and, more specifically, 'glasses'. Be on the lookout for times when your consultant prefaces a comment with 'it's like when ...' That is a good indication that the informationyou are getting is a description rather than a definition . (Of course, descriptions can be useful information too – and if they are given in the target language, they are an excellent sources of similes , short sentences, or examples with the semblative case [if there is one].)

#### 7. Specific domains for lexical elicitation (Bowern 2015)

Here is some discussion of some particular lexical domains for elicitation. Note that semantic domains are highly specific to region, especially for flora and fauna, so the list may need adaptation to your area.

### Body parts and products (Bowern 2015)

External body part terminology can be elicited **by pointing to the particular body part**. For internal organs and body products, you may need to use terms in the **contact language** or **anatomical diagrams**. In some cultures it is not appropriate to show pictures of naked bodies (or anatomical diagrams), so find out in advance whether this is all right. It may also be frowned on to show pictures of naked members of the opposite sex. Try to get baby terms and slang terms for body parts as well as the regular terms. Possessive marking can be elicited at the same time as you do body part work. If the language has inalienable possession , this is a place you are highly likely to find it. It might be easier in some cases to get detailed anatomical information about animals rather than humans. For example, hunter-gatherer groups often have very detailed knowledge of (and terminology for) the anatomy of the animals they hunt.

# Kinship terminology(Bowern 2015)

It's useful to master kinship terminology in your field language. You can observe what people call each other and how kinship affects interaction, and can use the answers as a prompt for talking about kin-related language (e.g. wedding ceremonies). Eliciting kin terms can be quite confusing. It's best to use real family situations – your consultants will probably be able to do complex kin calculations in their heads, but you may get confused without practice.

Try to establish the range of each term. Who can be called son or daughter? Who can be called granny? Elicit information from different people and compare the results. The scope of kin terms can be very difficult to define, for example, when eliciting from English, as the English kinship system is fairly impoverished by many standards. Draw family trees. Ask different members of the same family. Reckoning may be different for men and women (e.g. for languages which classify children according to the sex of the parent, not the sex of the child; cf. Bardi *aala* 'man's child' and *bo* 'woman's child', not 'son' versus 'daughter'). The traditional anthropological literature has a great deal of information on kinship and its elicitation.

#### Other domains for lexical exploration:

- occupations (and social structures more generally);
- value judgements how to talk about evaluation, emotion terms;
- sounds, smells, textures, and the like;
- religious or other ceremonial terminology;
- musical terms; other specialised knowledge;
- abstract concepts (ethnophilosophy, moral reasoning;
- mental vocabulary (thinking, forgetting, etc);
- mathematical concepts;
- cooking;
- astronomy;
- geography, landscape features;
- temperature terms;
- colour terms;

- pain;
- clothing, jewellery, other personal adornment (such as hair styles).

# 8. Questionnaire-based elicitation

There are two kind of questionnaires (Sakel – Everett 2012: 114):

- lists of categories of the type 'does language have X strucure'?
- lists of questions to ask speakers during an interview

You can find questionnaires on various linguistic topic on the website of Max Planck Institute:

https://www.eva.mpg.de/lingua/tools-at-lingboard/questionnaires.php

For example, a quesionnaire on Motion in Australian Languages (Wilkins – Nash – Simpson 1998) can help you in solving the exercises of recent package (see 2-2):

https://www.eva.mpg.de/lingua/tools-at-lingboard/questionnaire/australian-languages\_description.php

Another one deals with figurative use. It can be served as a good starting sketch (>>> pdf)

Further comments to the compilation (see also Matthewson 2004):

- use your general linguistic knowledge
- use your imagination
- translations provide a clue, they don't give you a result
- give the context first, then the sentence (otherwise your informant might have already imagined a context).
- you can use your common meta-language to explain the context.
- A leading question might prejudice the answer
  - E.g. do not ask the informant: "If I say [translation of It is Mary who wants fish], does this mean that we must already know that somebody wants fish?"
  - You are asking your informant to form a generalization and engage in the analysis of his/her own language.

# 9. Exercises

Compile a sketch of a questionnaire according to one of the following semantic domains (1-2 pages):

- motion verbs
- perception
- kinship
- body parts

The goal of the questionnaire:

• to get the basic terms

- to get the system of the basic terms
- Figurative use?
- Secondary meanings?

The situation:

- The investigated language is an underdocumented language.
- You can use meta-language (e.g. for translation, explanation).

Focus:

- avoid pitfalls!
- What kind/type of technique you would use (translation, pointing, text elicitation, use of contact language, use of figures and drawings, other type of stimuli etc.)?

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# LEXICAL TYPOLOGY OF MOTION VERBS

# PACKAGE 2-2

### INFUSE - e-learning /April 2016

# 1. Why MOTION?

- because **motion** is one of the primary experiential domains in human life and therefore bound to be lexicalized in all languages (van der Zee Vulchanova 2013: 1)
- because the encoding of space—including motion—is central to our cognitive and linguistic functioning. Notions relating to space are taken as an analogical model or a metaphorical source for other kinds of semantic relations, such as possessive constructions, temporal expressions, etc. (van der Zee Vulchanova 2013: 1)
- It is assumed that all languages have a class of motion verbs and that this class will minimally include two forms which correspond to English *come* and *go*. (Wilkins 1995)

but:

• motion does not exclusively belong to lexicology. It Besides morphology and semantics, but syntax as well.

The studies on motion mostly focuses on verb roots (Talmy 1985: 61)

- because the main concern is with the kinds of lexicalization that involve a single morpheme,
- in this way we are able to compare lexicalization patterns across languages with very different word structure.
  - e.g., the verb root in Chinese generally stands alone as an entire word, whereas in Atsugewi (Calfornian language) it is surrounded by many affixes that all together make up a polysynthetic verbal word. But these two languages are on a par with respect to their verb roots.

# 2. Definition

There are a lot of approaches to the definition of motion, e.g.:

"In essence, spatial motion is nothing else than a series of consecutive changes in the relationship of location holding between a given object and its domain." (Rudzka-Ostyn 1988: 517)

• motion events related to change-of-state events in general. Change-of-location can be seen as a kind of change-of-state, a subdomain in a big group of events, which comprises different kinds of events that have the characteristic 'change over time'. (Filipovic 2007: 5)

# 3. Talmy's typology

Talmy (1972, 1985 etc.) has provided the framework on which most current analyses are based.

# **3.1.** Components

(Yuka-man Yiu 2013: 4-11)

Motion events are situations "containing movement or the maintenance of a stationary location" (Talmy 1985: 85).

A **Motion Event** (= "Translatory Situation") is a pattern of four components:

Figure: the entity that is moving or is located at a specific place

- **Ground**: the entity which acts as a spatial reference point for the motion/location of the figure
- **Path**: the path of motion of the figure

**Manner**: the manner of motion by which the figure moves along the path MANNER: the way in which motion is performed

Examples of Talmy:

(1)	The bottle	moved	into	the cove.
	[Figure]	[Motion]	[Path]	[Ground]

In addition to the above four major components, a motion event can be associated with an external **co-event** which often bears the relation of **manner** or **cause** to it. The motion event and the co-event together form a macro-event. For example (Talmy 2000: 26):

Motion

(2)	The pencil	rolled	off	the table.	
	Figure	Motion	Path	Ground	
		Manner			
(3)	The pencil	blew	off	the table.	
	Figure	Motion	Path	Ground	
		Cause			
Locatio	on				
(4)	The pencil	lay	on	the table.	
	Figure	Motion	Path	Ground	
		Manner			
(5)	The pencil	stuck	on	the table.	(after I glued it).
	Figure	Motion	Path	Ground	
		Cause			

#### **3.2.** Form and meaning

semantic elements:	Motion, Path, Figure, Ground	, Manner, Cause
--------------------	------------------------------	-----------------

surface elements: verb, adposition, subordinate clause, satellite etc.

The question is which semantic elements are expressed by which surface elements?

>>> explore typological patterns and universal principles

### 3.3. The core schemas

Talmy (2000: 221):"the world's languages generally seem to divide into **a two-category typology** on the basis of the characteristic pattern in which the conceptual structure of the macro-event is mapped onto syntactic structure. To characterize it initially in broad strokes, the typology consists of whether the core schema is expressed by the main verb or by the satellite".

- verb-framed languages: maps the core schema into the verb
  - e.g. Romance, Semitic, Japanese, Tamil, Polynesian, Bantu, some branches of Mayan, Nez Perce and Caddo
- **satellite framed** languages: expresses the core schema in the satellite
  - e.g. most Indo-European minus Romance, Finno-Ugric, Chinese, Ojibwa and Warlpiri

In the case of an event of motion, the core schema of a motion event involves either the path or the path together with the ground.

### 3.4. What is satellite?

The satellite to the verb is the grammatical category of any constituent other than a nominal or prepositional phrase complement that is in a sister relation to the verb root. (Talmy 2000: 102).

The satellite, which can be either a bound affix or a free word, is thus intended to encompass all of the following grammatical forms (Talmy 2000: 222), e.g.:

- English verb particles,
- German separable and inseparable verb preffixes,
- Latin or Russian verb preffixes,
- Chinese verb complements,
- Caddo incorporated nouns and
- Atsugewi polysynthetic affixes around the verb root.

#### Finno-Ugric languages are considered as satellite-framed languages.

E.g. Hungarian is a satellite language, because (Rózsavölgyi 2015):

- it is rich in motion verbs
- the verb root refers to Manner, e.g.

0	befordul	'turn in'	be- 'in, into'
0	lemászik	'climb down'	<i>le-</i> 'down'
0	kisompolyog	'sneak out'	ki- 'out'

• the Path is expressed by other linguisitc means, such as preverbs, local cases, postpositions, adverbials etc.

#### 3.4. Conflations (Yuk-man Yiu 2913: 7-10)

There are three conflation patterns among the major components of a motion event and the co-events:

1st pattern: conflating motion and manner/cause in the verb.

Languages or language families: Chinese, Indo-European excluding Romance, Finno-Ugric, Ojibwa and Warlpiri etc.

Motion + Manner (Talmy 2000: 30, 51)

(6)	a. non-agentive motion event:	The rock <b>rolled</b> down the hill.
	b. agentive motion event:	I rolled the keg into the storeroom.
	c. self-agentive motion event:	I ran down the stairs.

Motion + Cause (Talmy 2000: 28, 30)

(7)	a. non-agentive motion event:	The bone <b>pulled</b> loose from its socket	
	b. agentive motion event:	I <b>pushed</b> the keg into the storeroom.	

**2nd pattern:** the verb expresses both motion and path.

Languages: Romance, Semitic, Polynesian, Nez, Perce, Caddo, Japanese and Korean etc.

Motion + Path

(8)	a. non-agentive motion event:	La botella <b>entro</b> a la cueva (flotando).	
		the bottle move-in.pst to the cave (floating)	
		'The bottle floated into the cave.'	
	b. agentive motion event:	Meti el barril a la bodega rodándolo.	
		I-move-in.pst the keg to the storeroom rolling-it	
		'I rolled the keg into the storeroom.'	

**3rd pattern**: conflation of motion and figure in the verb. Languages: Atsugewi and Navaho.

Motion + Figure Atsugewi (Californian) (Talmy 2000: 59) (9) a. non-agentive motion event: '-w-ca-stå q-'icť -a 3sg.s-caus-runny icky material-into liquid-factual 'Literal: Runny icky material moved into liquid from the wind blowing on it.' b. agentive motion event:

'Instantiated: The guts blew into the creek.'

s-'-w-cu-stá q-'cis-a

1sg.s-caus-runny icky material-into fire-factual

'Literal: I caused it that runny icky material move into fire by acting on it with a linear object moving axially.'

'Instantiated: I prodded the guts into the fire with a stick.'

# 4. Slobin's approach

(Slobin 2004, 2006, Fortis 2010)

Slobin (e.g. 2004, 2006) has applied Talmy's typology in his analysis of samples from narratives in different languages.

In order to hold content constant across languages, a picture storybook, Frog, where are you? has been used in extensive crosslinguistic research. (>>> pdf)

In one picture, a little boy is looking into a hole in a tree and an owl emerges, wings outspread. Schematically, the path component of the event—that is, the physical displacement of the owl in space—can be described in two ways: (1) a path verb, such as 'exit, can encode the owl's trajectory, or (2) an element associated with a verb can encode the trajectory, such as Germanic verb particles (e.g., 'come out') or Slavic verb prefixes. (= Talmy's satellites)

• The stories were collected from speakers of 21 languages: Arrernte, Basque, Dutch, English, French, German, Hebrew, Icelandic, Italian, Mandarin, Polish, Portuguese, Russian, Serbo-Croatian, Spanish, Swedish, Tzeltal, Thai, Turkish, Warlpiri, West Greenlandic.

• 3 age ranges : preschoolers (3-5 yrs), school-age children (6-11), adults.

>>> the form and content of descriptions of motion events are heavily shaped by the typology of lexicalization patterns.

Slobin (2004: 238): the path is an obligatory component of motion-event expressions: in fact no motion can be produced without a moving entity following a path.

Some results:

- languages do not use only the main verb or the satellite to encode path.
- extending Talmy's typology: a third type of languages, **equipollently**-framed languages.
  - path and manner are both expressed by equivalent grammatical forms such as the verbs in the serial verb construction (see sentence 10)

It is proposed that languages fall into the following types of lexicalization patterns, based on Talmy's dichotomy:

Language type	Preferred means	Typical construction type	Examples
	of expression		-
verb-framed	path expressed by	verb <sub>PATH</sub> +	Romance, Semitic,
	finite verb, with	subordinate verb <sub>MANNER</sub>	Turkic, Basque,
	subordinate manner		Japanese, Korean
	expression		
satellite-framed	path expressed by	$verb_{MANNER}$ + satellite <sub>PATH</sub>	Germanic, Slavic,
	non-verb element		Finno-Ugric
	associated with verb		
equipollently-framed	path and manner	serial verb:	Niger-Congo, Hmong-
	expressed by	verb <sub>MANNER</sub> + verb <sub>PATH</sub>	Mien, Sino-Tibetan,
	equivalent		Tai-Kadai, Mon-
	grammatical forms		Khmer, Austronesian
		bipartite verb:	Algonquian,
		[manner + path] <sub>VERB</sub>	Athabaskan, Hokan,
			Klamath-Takelman
		generic verb:	Jaminjungan
		coverb <sub>MANNER</sub> + coverb <sub>PATH</sub> +	
		verb <sub>GENERIC</sub>	

(Slobin 2004: 249)

### Subgroups of the equipollently-framed languages:

• **serial-verb languages:** it is not always evident which verb in a series, if any, is the "main" verb (Niger-Congo, Hmong-Mien, Sino-Tibetan, Tai-Kadai, Mon-Khmer, (some) Austronesian), e.g.

Thai (Zlatev – Yangklang 2004: 160, Yuk-man 2013: 10)

- (10) Chán dəən khaam thanŏn khaw paj naj sŭan.
  - I walk cross road enter go in park

'I walked across the road and into the park.'

• There are four verbs:

0	dəən	'to walk'	manner
0	khâam	'to cross'	non-deictic path
0	khâw	'to enter'	non-deictic path
0	рај	'to go'	deictic path

(A serial verb construction is a string of verbs or verb phrases within a single clause that express simultaneous or immediately consecutive actions: have a single grammatical subject, have no connective markings, and are marked or understood as having the same grammatical categories, such as aspect, modality, negativity or positivity, and tense. http://www-01.sil.org/linguistics/GlossaryOfLinguisticTerms)

- **bipartite verb languages**: in which the verb consists of two morpheme of equal status, one expressing manner and the other path (e.g. the Hokan and Penutian languages)
- **generic verb:** e.g. Jaminjung (Australian): with a very small verb lexicon of about 24 "function verbs". For encoding motion events, one of five verbs is used, expressing a deictic or aspectual function: 'go', 'come', 'fall', 'hit', 'do'. These verbs are combined with satellite-like elements, "coverbs," that encode both path and manner in the same fashion. In such a language, neither path nor manner is unequivocally the "main" element in a clause. (Slobin 2006: 5)

# 5. Perspectives of cognitive linguistics (Croft et al. 2010)

Talmy's basic typology has been challenged in recent theoretical and empirical research, e.g. Zlatev and Yangklang 2004; Croft et al. 2010.

For instance, Croft et al. argued that Talmy's typology of complex event constructions should be expanded:

- It should include three symmetrical construction types **coordination**, **serialization** and **compounding**
- only one of which (serialization) has been previously discussed in the literature on the Talmy's typology.
- It should also include the **double** framing construction type (e.g. Bulgarian and Icelandic.

Croft states, "the Talmy typology is not a typology of how a language encodes complex events in general, but rather a typology of how particular complex event types are encoded by different constructions in a language. Languages make use of multiple strategies to encode complex events, depending on the type of complex event involved" (Croft et al. 2010: 231).

The value of refining the typological classiffication (Croft et al. 2010: 231):

- there are patterns in the complex event types encoded by different constructional types in Talmy's typological classiffication. One can define a morpho-syntactic scale of the different constructions in the Talmy classiffication; the morpho-syntactic scale is paralleled by a semantic or conceptual scale of how typically or naturally the subevents of the complex event go together.
- there is evidence that the different types in the Talmy classification can be placed into two more or less parallel grammaticalization paths that end with the univerbation of the event and frame expressions in a single morphologically bound predicate form.

# 6. Studies on MOTION verbs in Uralic

Comparative or intra/intertypological research on Uralic motion verbs are not typical, sporadically occur studies and publications on this topic. Here we refer two studies.

# 6.1. Söder 2001: Northern Khanty, Northern Saami and Hungarian

The aim of the study:

- describe the meanings of the single verbs of motion from a synchronic persprctive
- describe the semantic field that the verbs of motion constitute
- (it does not apply Talmy's typology)

Method:

- based on lexical and contextual information
- investigation of verbs that
  - o denote movement performed by a human trajector
  - o denote a movement implying a change of location
  - transitive verbs are left out the study
  - $\circ$  are non-derived (it does not examine the "satellites")

Material:

- collected from informants
- lexical description (mostly dictionaries)

# Survey by semantic categories:

# General verbs of movement

• SOURCE-oriented movement

NKhanty	NSaami	Hung.	
манты	mannat	megy	'go'
хатты	vuolgit	indul	'leave'
	e		
	gáidat	távozik	'withdraw'
	5		
яхты		jár1	'go forward and back'
		5	8

#### • PATH-oriented movement

NKhanty	NSaami	Hung.	
нёхаты	lihkkat	mozog	'move'
каслты	johtit		'migrate'
		halad	'advance'
	sirdit		'change residence'

### • GOAL-oriented movement

NKhanty	NSaami	Hung.	
йхты	boahtit	jön	'come'
ёхатты	ollet	ér	'arrive'
хойты	beassat	jut	'reach'
ПИТТЫ		kerül <sub>1</sub>	'end up'
рахты			'approach'
	mollat		'pass by'

# Manner:

NKhanty	NSaami	Hung.	
шушты	vázzit	jár <sub>2</sub>	'walk'
хухалты	viehkat	fut	'run'
хухты	guokkardit	kúszik	'crawl'
вангкты	goargŋut	mászik	'climb'
ларыты	fierrat	gurul	'tumble'
	čierastit	csúszik	'glide'
	čuoigat		'ski'
	riidut		'ride'
	čiŋkut		'hop on one leg'

# **Direction**:

NKhanty	NSaami	Hung.	
хонтаты	báhtarit	szökik	'escape'
	gárgedit		'flee'

лонгты		bújik	'enter'
лэпты	suotnjat		'go into'
	jávkat	tűnik	'disappear'
килты		hág	'ascend'
этты	ilbmat		'emerge'
охалты			'descend'
аратты			'rush toward'
		lódul	'clear off'
		téved	'go astray'
		kerül <sub>2</sub>	'make a detour'

#### Velocity:

NSaami	Hung.	
rugáhit	siet	'hurry'
	illan	'slip'
	iszkol	'slip'
	oson	'slip away'
	robog	'rush'
	rohan	'rush'
	suhan	'flit'
	száguld	'rush'

Some results:

- The three languages demonstrate similarities concerning the number of verbs in each category.
- The verbs denoting path-oriented movement form the smallest category.
- One general egocentric verb of motion: Hung. megy, KhN. манты, SaN. mannat
- there is a large number of verbs of motion in Hungarian
  - possible causes: its early status as a literary language, many dialectal verbs could have existed in the standard language
- from a diachronic point of view:
  - o some verbs of motion have categorial and etymological counterparts

NKhanty	NSaami	Hung.	
манты	mannat	megy	'go'
йхты		jön	'come'
ёхатты		jut	'arrive'
лонгты	suotnjat		'enter'

o some verbs of motion have etymological but not etymological counterparts

NKhanty	NSaami	Hung.
охалты	vuolgit	
хухаты	golgat	halad

хухты		hág
лэпты		lép
КИЛТЫ	gállit	

# 6.2. Pajusalu – Kahusk – Orav – Veismann – Vider – Őim: Estonian (2013)

(In detail: http://www.hf.ntnu.no/motionencodingfiles/book.html)

Focus of the research:

• the means of encoding motion events in Estonian

Based on

• a mini-corpus containing 1,168 sentences with a finite form of verb of motion.

The study identified both the verbs encoding motion and the means representing spatial characteristics of motion events.

Concerning the frequency of the motion verbs, one could identify a typical verb representing each semantic group, e.g:

- for the synset 'arrive, get, come' = *tulema* 'come'
- viskama 'throw' is the typical verb for the synset 'throw, project through the air'.

The categories of SOURCE, GOAL, LOCATION, PATH and DISAPPEARANCE proved to be important categories in our approach with regard to encoding spatial relations; they all possess typical means of expression.

Statistically, the following facts are of interest:

a) GOAL is most often encoded

b) three-dimensional local cases are more frequent

The conceptual clarity of the Estonian categories reveals variation. It is relatively easy to interpret SOURCE, GOAL, and LOCATION because they have their own grammatical cases and DISAPPEARANCE has its adverb *ära* 'away' (being at the same time a perfective particle). The major difficulties include:

a) explanation of the interaction of aspect and space. In the case of the perfect aspect the motion has already taken place and the AGENT or OBJECT has stopped;

b) interpretation of the arguments of the verb käima 'walk, visit'.

PATH, in the sense we adopted in our approach, is a category that is most difficult to interpret from the viewpoint of the interface between morphosyntax and semantics as it does not have its own means of expression and because the adpositions that are typically used for encoding are polysemous.

# 8. Exercises

Choose a Finno-Ugric (students of Altaic Studies: an Altaic) language, and make a list of its motion verbs!

- collect motion verb roots as many as you can
- determine some means (particles, postpostitions, demonstrative, perverbs etc.) for satellites:
  - means for PATH and/or (if relevant)
  - o means for MANNER and/or (if relevant)
  - $\circ$  means for FIGURE and/or (if relevant)
  - means for GROUND (if relevant)
- give some examples for conflations!

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# Lexical typology

# **VERBS OF PERCEPTION**

INFUSE - E-learning /April 2016

2st package (3)

#### Why perception?

- "Every language has a way talking about seeing, hearing, smelling, tasting and touching." "Every language has a way of referring to basic sources of sensory perception: through sight, through hearing, through smell, through taste and throug touch." (Aikhenvald-Storch 2013: 1)

- it is assumed that the majority of languages have a class of perception verbs

- perception is one of the primary experiential domains in human life  $\rightarrow$  it is lexicalized in the majority of languages

- verbs of perception form a well structured semantic field

- the structure of this semantic field is based on universal parameters (e.g.: sense modalities)
- languages show clear patterns regarding the structure of this semantic fields

#### $\rightarrow$ suitable for lexical typological study!

Beside lexicology the typological study of perception verbs is in connection with syntax and morphology, too.

#### 1. Perception

"The primary function of perception in humans is to recognize and identify objects and events and their spatial and temporal arrangements and to provide the environmental input for the construction of a model or a cognitive representation of the external world." (Viberg 2001: 1994)

#### Senses

A broadly acceptable definition of a sense : "A system that consists of a group of sensory cell types that responds to a specific physical phenomenon, and that corresponds to a particular group of regions within the brain where the signals are received and interpreted." There is no firm agreement as to the number of senses because of differing definitions of what constitutes a sense. Senses are physiological capacities of organisms that provide data for perception. Humans have a multitude of senses. Sight (ophthalmoception), hearing (audioception), taste (gustaoception), smell (olfacoception or olfacception), and touch (tactioception) are the five traditionally recognized.

(Humans have other senses that they are aware of, outside of the traditional senses., like Balance, Temperature, Kinesthetic sense, and Pain.) http://udel.edu/~bcarey/ART307/project1\_4b/



# 2. Perception verbs

The prototypical function of verbs of perception is to indicate the sense modality (sight, hear, touch etc.) and the experiencer (source of the information).

János hallja a kutyákat ugatni. 'John hears the dogs barking.'

Sense: HEAR Experiencer: János

Anna érez egy követ a talpa alatt. 'Anne feels a stone under her foot.'

Sense: TOUCH

Experiencer: Anna

# 3. Viberg's typology:

Viberg investigated the perception verbs of 53 languages among them 3 Uralic languages (Hungarian, Finnish and Estonean). (Viberg 1984, 2001)

# **3.1.** The system of the perception verbs according to Viberg's typology:

- there are 15 basic meanings in the system
- one subsystem according to each sense modality (5)

- one subsystem according to the topic of the sensation Cf.: *Peter looked at me.*  $\leftarrow \rightarrow$  *Peter looked happy to me.* [I/PEETER]

- One subsystem is the so called **dynamic system** according to the agentivity. Cf.: I *was* not listening to you.  $\leftarrow \rightarrow I \operatorname{didn}'t \operatorname{hear} you$ . [Agent / Experiencer]

# → 15 possible "basic" perception verbs

Table 1. English

	EXPERIENCER-BASED		PHENOMENON-BASED
	ACTIVITY	EXPERIENCE	
SIGHT	Peter was looking/looked at the birds.	Peter <b>saw</b> the birds.	Peter <b>looked</b> happy.
HEAR	Peter was listening/listened to the radio.	Peter <b>heard</b> the radio.	Peter <b>sounded</b> sad.
TOUCH	Peter <b>felt</b> the cloth /to see how soft it was/.	Peter <b>felt</b> a stone under his foot.	The cloth <b>felt</b> soft.
TASTE	Peter <b>tasted</b> the food /to see if he could eat it/.	Peter <b>tasted</b> garlic in the soup.	The soup <b>tasted</b> good /bad/ of garlic.
SMELL	Peter <b>smelled</b> the food /to see if he could eat it/.	Peter <b>smelled</b> garlic in the soup.	The soup <b>smelled</b> good /bad/ of garlic.

(Viberg 2001: 1295)

The main aspects of the typological studies are:

- How many basic perception verbs are in the system?
- How the lexical contrasts of the system are expressed?
- How the perception verbs extend to cover meanings of other perception verbs?

**Basic verbs - basic terms** of a semantic field (e.g. basic colour terms) - they are morphologycally simpler, salient, frequent, broader in meaning, easier to learn and remember, not metaphorical.

# 3.2. The sense modality hierarchy for perception verbs

A verb whose prototypical meaning is related to a certain modality can extend its meaning to cover more marked modalities. The opposite is not possible!

E.g.:

# TOUCH

SIGHT > HEARING > TASTE

The hierarchy is based on the markedness criteria. (SIGHT: less marked modality  $\leftarrow \rightarrow$  [TOUCH, TASTE, SMELL]: most marked modality)

Markedness: 1. structural properties: number of morphemes; 2. behavioral properties: inflections, syntactic environments; 3. frequency (Cf.: Greenberg 1966, Croft 1990)

The hierarchy is also reflected in acquisitional data. The visual verbs appear before the other verbs of perception in first language acquisition.

The dominance of vision among the sense modalities is well established within cognitive psychology and neuropsychology. Around 80% of perception is accounted for by vision.

The languages may represent different perception verb's system with different patterns of extension:

# Some examples for different kinds of extension:

### 1. **SEE > HEAR** (it is not common)

# E.g.: Djaru (Western Australia)

### 'hear' is realized as an extended sense of 'see'

ŋumbir-u	mawun	ŋan-an	
woman-ERG	man	see-PRES	
'A woman see	es a man.'		
ŋumbir-u	mawun	buta	ŋaŋ-an
woman-ERG	man	hearing	see-PRES
'A woman hea	ars a man.'		

*nan-an:* unmarked / *buτa ŋaŋ-an:* marked

# **2.** (1) **SEE and** (2) **HEAR** > other sense modalities

There is a basic verb meaning 'SEE' and a second on for the other sense modalities and its prototypical meaning is 'HEAR'.

# E.g.: Setswana (Bantu, Botswana)

Table 2. Setswana

	EXPERIENCER-BASED		PHENOMENON-BASED
	ACTIVITY	EXPERIENCE	
SIGHT	leba	bona	lebega
HEAR	reetsa	utlwa	utlwala
TOUCH	utlwa or tshwara	utlwa	utlwala
TASTE	utlwa (or leka 'try')	utlwa	utlwala
SMELL	nkga (or dupa)	utlwa	nkga

# 3. (1) SEE, (2) HEAR, (3) [TOUCH, TASTE, SMELL]

There are also languages, where there are separate verbs for 'SEE', 'HEAR' and 'FEEL', and 'FEEL' is extended to 'TASTE' and 'SMELL'.

E.g.: Swedish

*se* 'see', höra 'hear', *känna* 'feel', *känna smaken* 'taste' (lit. 'feel the taste), *känna lukten* 'smell' (lit. 'feel the smell')

Russian

John felt the rock	Džon čuvstvoval kamen
	Džon feel-3SG.PST stone-ACC
John tasted the pepper	Džon čuvstvoval vkus perca
	Džon feel-3SG.PST taste-ACC pepper-GEN
	Džon čuvstvoval perec
	Džon feel-3SG.PST pepper-ACC
John smelled the soup	Džon čuvstvoval zapax supa
	Džon feel-3SG.PST smell-ACC soup-GEN
	Roger (1980)

E.g.: Hungarian: there is no differentiation after 'hear' int he activity and phenomenon-based rows. Cf.

A sütemény **í**zét még **érzem** a számban. Sütemény **illat**át **érzem** a levegőben. Sütemény *morzsákat* **érzek** a lábam alatt. Lit.: 'I taste cake in my mouth. I smell cake in the air. I feel morsels of cake under my foot.'

### *Table 3. Hungarian*

ICE	
néz	látszik
allgat	hallatszik
apint	
ízlel	érződik
zagol	
1	néz ıllgat ıpint ízlel zagol

(Cf.: Kicsi 2001: 187)

! Cf.: In English system there are 3 different verbs in [TOUCH, TASTE, SMELL]-modalities, but there is no differentiation between the "rows". (Cf.: Table 1.)

#### Table 4. English

	EXPERIENCER-BASED		PHENOMENON-BASED
	ACTIVITY	EXPERIENCE	
SIGHT	look at	see	look
HEAR	Listen to	hear	sound
TOUCH	feel		
TASTE	taste		
SMELL	smell		

# 4. Extension of 'hear' to 'smell'

(e.g.: Persian, Yoruba)

# Relations between [TOUCH, TASTE, SMELL]:

- there is a tendency to be realized in the same verb root in several ways
- the relations can be represented as a weaker generalization as follows:



'HEAR' is extended exclusively to 'smell' in a number of languages. (? Maybe because both can be characterised by [- contact]: they are used to perceive stimuli from a distance.)

### THE POLYSEMY OF THE PERCEPTION VERBS

The verbs of perception have a tendency to extend their meaning.

#### 1. intrafield polysemy (cf. Vyberg's typology of extension!)

the crosslinguistic distribution of polysemy patterns (here FEEL stands for any pattern that covers TOUCH, SMELL, and TASTE):

FEEL [vs. SEE vs. HEAR]	14 languages	
HEAR + FEEL [vs. SEE]	7 languages	
SEE + FEEL [vs. HEAR]	1 (Kurdish)	
SEE + TOUCH vs. HEAR + SMELL +	TASTE	1 (Swahili)

SEE + HEAR + FEEL 1 (Kobon)

(Maslova)

### 2. extrafield polysemy

The perception verbs have clear tendency to extend their meaning into other field of cognition (e.g. KNOW, THINK)

SEE / KNOW: "what you have seen, you know" (e.g. Mansi way 'see, to know')

HEAR / KNOW : e.g. Australian aboriginal languages (the ear is the intellectual centre, it is the set of thinking - Aikhenvald: in Australian languages audition was a more important source for cognition meanings than was vision.)

TASTE / KNOW (Latin *sapere*, Spanish *saber*)

### 3. grammaticalization of perception verbs (it is not common)

- e.g.: evidential markers from verbs 'see', 'hear' and 'say' (Maricopa language, Africa)

Cf. SEE: English seem, it seems, Hung. (úgy) látszik 'seem', HEAR: Mansi sujti 'sound, seem'

### The lexical universals of perception verbs

- most languages tend to have at least 'SEE'

- there is a strong cross-linguistic preference for lexicalization of SEE and HEAR as distinct concepts

- the hierarchy of sense modalities is: see > hear > touch > taste, smell
- SIGHT and HEARING can be extended to all modalities lower in the hierarchy
- lexicalization patterns predict lexicalization patterns in other sense modalities
- a link between intellection and sight in the language of the senses is universal

# TASKS:

1. Fill the table of perception verbs (cf.: Table 1.) with data of yor mother toungue!

Characterise your mother tongue according to the (intrafield and extrafield) polysemy of the perception verbs.

(Instead of mother tounge You can choose other language as well!)

2. Here You can see the Mansi perception verbs' system. The first table was compiled on the basis of a Mansi vocabulary (http://www.babel.gwi.uni-

muenchen.de/index.php?abfrage=munka&subnavi=edictionary). The second table was compiled on the basis of Mansi folklore texts. (Horváth 2011) Finally compile a third table from data recorded from a Mansi informant! Compare the tables, review the differencies and similarities and explain them!

	EXPERIENCER-BAS	PHENOMENON-	
	AKTIVITY	EXPERIENCE	BASED
LÁTÁS	sunsi	wāγ	nāŋki
HALLÁS	χōntli	χōli	sujti
TAPINTÁS	māli	χōli	sujti
ÍZLELÉS	ōrmi	χōli	sujti
SZAGLÁS	ataji	χōli	pasi

1.	Mansi	perception	verbs	(vocabulary)	
				· //	

2.	Mansi	perception	verbs	(folklore	texts)
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	EXPERIENCER-BASI	ED	PHENOMENON-
	AKTÍVITY	EXPERIENCE	BASED
SIGHT	sunsi	wāγ	nāŋki
HEAR	χōntli	χōli	sujti
TOUCH	(χōntli)	_	sujti
TASTE	_	_	_
SMELL	ateji / atinti	_	pasi

2. Mansi perception verbs (informant's data)

	EXPERIENCER-BASE	ED	PHENOMENON-
	AKTÍVITY	EXPERIENCE	BASED
SIGHT			
HEAR			
TOUCH			
TASTE			
SMELL			

**Data**: (Perception verbs are bold written, the stem and the suffix are separetad by hyphen) SEE

*Ēln xajtnutət kasal-asum*. 'I saw wolves far away.'

*Televizort xajtnutət urəl kina suns-eyəm*. 'I am watching (look at) a film about wolves in the tv.

*Eln xajtnutət naŋk-eyət*. 'There are (look) wolves far away.'

#### HEAR

Wort ujriśət lujyən suj xuntl-eyəm. 'I hear the twittering voices of the birds in the forest.'
Ujriśət lujyən suj xuntl-eyəm. 'I am listening to the twittering voices of the birds.'
Xajtnutət sujanəl xuntəylal-eyəm. 'I am listening to wolves. (Are they coming or not.)
Wort ujriśət lujyən suj sujt-i. 'Twittering of birds sounds in the forest.'
Xajtnutət lapamlan sujanəl sujt-i. 'The voice of approaching wolves sounds.'

#### TOUCH, TATE, SMELL

Atəŋ tenut ate <b>pas-i.</b>	'I feel the taste of the food.'		
Pasmatam xul ate <b>pas-i.</b>	'I feel the smell of stinky fish.'		
Wortolnut pil <b>at wiy</b> .	'The bear smells berrries.' (lit.: smell + take)		
Wortolnut pil <b>atənt-i.</b>	'The be	ear smells berrries.'	
Atəŋ tenut ate <b>pas-i.</b>	'The fo	ood tastes good.'	
Pasmatam xul ate <b>pas-i</b> .	'The st	inky fish smells bad.'	
Supəmt xul ate <b>sujt-i</b> .	'I feel the taste of fish in my mouth.'		
Xul <b>artal-eyəm</b> .	'I taste	the fish.'	
Xul ismitət xul ate <b>sujt-i.</b>	'Fishsu	ip tastes fish.'	
Layləm patat axwtasət <b>su</b>	ıjt-eyət.	'I feel stones under my foot.'	
Ma witəŋəy <b>sujt-i</b> .		'The earth feels raw.'	
Śepəmt axwtas <b>malaśl-as</b>	əm.	'I touched a stone in my pocket.'	
Witəŋ ma <b>malaśl-eyəm</b> .		'I touch the raw earth.'	
Lavlanum patat axwtas s	uit-i.	'Under my foot a stone feels.'	

**3.** Read article of Elena Maslova! Compare her findings with Viberg's typology! Does it contradict or support the Viberg's typology of perception verbs ?

[Maslova: *A universal constraint on sensory lexicon, or when hear can mean 'see'*? http://anothersumma.net/Publications/Perception.pdf]

# Literature

Alexandra Aikhenvald and Anne Storch (ed.) 2013 *Perception and Cognition in Language* and Culture. BRILL

Evans, Nicholas - Wilkins, David (2000). In the Mind's Ear: The Semantic Extensions of Perception Verbs in Australian Languages. *Language* Vol. 76, No. 3 pp. 546-592 Horváth Ildikó (2011) *Érzékelésigék a manysi nyelvben*. Szakdolgozat. Szeged Kicsi Sándor András (2001), Az 'érzékelés'-t jelentő igék három csoportjáról, in Gecső Tamás (szerk.): Kontrasztív szemantikai kutatások, Tinta Könyvkiadó, 186–189 Maslova, Elena. *A universal constraint on sensory lexicon, or when hear can mean 'see'*? http://anothersumma.net/Publications/Perception.pdf Rogers, A. 1980. "*A problem in the semantic analysis of certain Russian perception verbs*". Armadillo Research Institute Austin, Texas. http://www.armadilloresearch.org/wpcontent/uploads/2012/08/Russian-Perception-Verbs.pdf Viberg, Åke (1984), The verbs of perception: a typological study., in Linguistics 21, 123–162. Viberg, Åke (2001), *Verbs of perception*, in Language Typology and Language Universals. An international handbook. Vol. 2, Berlin–New York, 1294–1309

#### Numerals and numeral systems

#### INFUSE - e-learning / May 2016

package 3\_1

"Human language, when counting, not only have different names for the numbers but also use a wide diversity of mathematical strategies." (Harrison 2006: 167)

#### 1. concept of number <sup>‡</sup> numerals <sup>‡</sup> inflectional category of number

(a) category of number = inflectional category = grammatical number

- obligatory or inherent
- count distinction
- on verbs, nouns, adjectives, pronouns etc. agreement
- affixes (car > car-s), suppletive forms (child > children)
- typically Singular vs. Plural

#### e.g.

#### dual

English, Hungarian: numeral	Nganasan: inflectional suffix	Mansi: inflectional suffix
two children	<i>'nuə-gəj</i> 'id.'	ńawram-iy 'id.'
két gyerek		
English, Hungarian: numeral	Nganasan, Mansi: inflectional s	suffix
plural		
suffixal:		
children		
gyerek-ek	ńuə-?	ńawram-ət



#### 2. Numerals and number

### number: abstract concept

#### numeral: a symbol

### 3. Counting

body parts, mostly fingers: e.g. used the spaces between the fingers to count (e.g Yuki, California).

- Many languages use fingers' names for counting ('pinkie', 'index finger').
- Borôro (850 speakers): complex phrases

9: 'the one to the left side of my middle finger',

10: 'my fingers all together in front',

13: 'now the one on my foot that is in the middle again'

#### objects, e.g.:

•	Pomo
---	------

- 20 1 stick
- 61 3 sticks and 1
- 100 5 sticks
- 400 1 big stick
- 500 1 big stick and 5 small sticks
- 4000 10 big sticks

Further examples:



(Harrison 2006: 173)

Iqwaye



Mr. Omalyca-Taqalyce of the Iqwaye people demonstrates counting on his fingers and toes:

- 9 = all the fingers but the right pinkie;
- 10 = all the fingers;
- 11 =all the fingers and the big toe;
- 20 =all the fingers and toes.

Yagwoia-Anga language, Yalqwaalye village, Papua New Guinea. Courtesy of Jadran Mimica

(Harrison 2006: 175)

Kaluli: pointing to body parts



"Like the Kaluli, the Kobon (6,000 speakers) have no words for numbers and count by naming or pointing to body parts. I invite the reader to count aloud to ten in the Kobon way. We will start at the left pinky and we will point to and name the countable body parts in order: little finger, ring finger, middle finger, forefinger, thumb, wrist, forearm, inside elbow, bicep, shoulder. We have reached ten, now we will go a bit higher on the body: collarbone. Next is the mid-point, twelve, the hollow at the base of the throat. In English, we have no name for this spot, but the Kobon call it 'mögan'. After the midpoint, we proceed down the right side of the body, but here the count gets a little more difficult. We use the same set of words but add the word böng, meaning 'other side' after each one. Here we go: collarbone böng, shoulder böng, biceps böng, ring finger böng, little finger böng. Now we have reached twenty-three, which is one complete cycle in Kobon body-counting." (Harrison 2006: 176)

#### 4. Numeral systems (Comrie, http://wals.info/chapter/131)

Main types of systems:

- A. Restricted systems, with little or no internal structure
- B. Simple systems with addition only
- C. More complex systems using multiplication and addition applied to a base

#### 4.1. where no numerals

Pirahã

>>>

http://www.spiegel.de/international/spiegel/brazil-s-piraha-tribe-living-without-numbers-or-time-a-414291.html



http://www.nature.com/news/war-of-words-over-tribal-tongue-1.10595

#### B. Simple systems with addition only

• one of the simplest known systems known to include arithmetic operations

Haruai (Piawi, PNG)

1	раŋ	
2	mos	
3	mos paŋ	2 + 1
4	mos mos	2 + 2

In practice this abstract system of Haruai is used only for counting up to four. There is another numeral in Haruai based on body parts, in a similar way in Kobon:

#### Kobon

1	little finger	23	24	46	47
2	ring finger	22	25	45	48
3	middle finger	21	26	44	49
4	forefinger	20	27	43	50 (index finger)
5	thumb	19	28	42	51
6	wrist	18	29	41	52
7	forearm	17	30	40	53
8	inside of elbow	16	31	39	54
9	biceps	15	32	38	55
10	shoulder	14	33	37	56
11	collarbone	13	34	36	57
12	hole above brea	stbone		35	58

#### Aiome (New Guinea)

1	nogom	
2	omngar	
3	omngar nogom	2 1
4	omngar omngar	2 2
5	omngar omngar nogom	2 - 2 - 1
6	omngar omngar omngar	

Hixkaryana (Cariban)

1	towenyxa	
2	asako	
3	osorwawo	
4	towtinke	'its brother twice over'
5	kamori irakay (o) me	'half of our hands'
10	kamothiri tkatxehkaxe ro	'our hands completely'

Comrie's comment: The Hixkaryana system suggests that the development of higher counts may have involved gaps, with higher round numbers developing before some lower numbers (unless, of course, Hixkaryana has lost the original numerals 6–10)

#### C. More complex systems using multiplication and addition applied to a base

- General pattern: for base b:  $(n \times b) + m$  (where m < b)
- Comrie's hypothesis: Arithmetic bases of numeral systems have either a somatic or a commercial (transactional) origin; lower bases are typically somatic, higher bases commercial, but New Guinea Highland body-part counting systems have relatively high somatic-origin bases, e.g.
  - 10 fingers
  - 20 fingers and toes; each finger twice (two phalanges/knuckles)
  - 8 spaces between fingers (attested for some California languages)
  - 12 phalanges or knuckles of fingers (excluding thumbs)

For higher bases with a commercial origin, cf. English score '20', which in some varieties has made it into the numeral system.

#### 5. Numeral Bases

By the "**base**" of a numeral system is meant the value n such that numeral expressions are constructed according to the pattern ... xn + y. *Cf*.:

#### Base: 10 (Decimal)

- the most common in the world
- fingers on the hands

#### Mandarin

wŭ-shí sì 5-10 4 54 [50 + 4]

#### Values

•	Decimal	125
0	Hybrid vigesimal-decimal	22
•	Pure vigesimal	20
0	Other base	5
0	Extended body-part system	4
0	Restricted	20



(http://wals.info/chapter/131)

#### Base: 20 (Vigesimal)

• fingers of the hands and legs

Chukchee (Paleo-Siberian)

kəlgən-qlekken	məngətkən	ŋireq	parol	
15-20	10	2	left	
312 [(15 x 20) + (10 + 2)]				

Kaktovik (Eskimo, Inupiat):

Inuit counting has sub-bases at 5, 10, and 15. As Arabic numbers were not adequate to represent the base-20 system, the students of a small school (!) developed their own counting system:
	WITH KAKTOVIK	IIuII	e	ais (.	inst column) and Arabic	num	cı	ai ey	uivalents (unita column)	
8	suitchuq (*see note)	0		١٥	iñuiññaq	20		۷۲	malġukipiak	40
X	atausiq	1		λλ	iñuiññaq atausiq	21		v١	malġukipiaq atausiq	41
ν	malġuk	2		١V	iñuiññaq malġuk	22		$\nu \nu$	malġukipiaq malġuk	42
W	piŋasut	3		۱N	iñuiññaq piŋasut	23		ν٨	malġukipiaq piŋasut	43
W	sisamat	4		١W	iñuiññaq sisamat	24		VW	malġukipiaq sisamat	44
-	tallimat	5		1-	iñuiññaq tallimat	25		v-	malġukipiaq tallimat	45
۲	itchaksrat	6		15	iñuiññaq itchaksrat	26		ν٢	malġukipiaq itchaksrat	46
$\nabla$	tallimat malġuk	7		١V	iñuiññaq tallimat malġuk	27		$\nabla \nabla$	malġukipiaq tallimat malġuk	47
б	tallimat piŋasut	8		١.	iñuiññaq tallimat piŋasut	28		٧Ñ	malġukipiaq tallimat piŋasut	48
Ŵ	quliŋŋuġutailaq	9		١W	iñuiññaq quliŋŋuġutaiļaq	29		$\nabla \overline{W}$	malġukipiaq quliŋŋuġutailaq	49
>	qulit	10		<^	iñuiññaq qulit	30		$v^>$	malġukipiaq qulit	50
7	qulit atausiq	11		51	iñuiññaq qulit atausiq	31		√۲	malġukipiaq qulit atausiq	51
⋧	qulit malġuk	12		٦٧	iñuiññaq qulit malġuk	32		v₹	malġukipiaq qulit malġuk	52
Й	qulit piŋasut	13		14	iñuiññaq qulit piŋasut	33		٧Y	malġukipiaq qulit piŋasut	53
Ŵ	akimiaģutaiļaq	14		١Ŵ	iñuiññaq akimiaġutaiļaq	34		v₩	malģukipiaq akimiaģutaiļaq	54
≍	akimiaq	15		۲	iñuiññaq akimiaq	35		<b>×</b> ×	malġukipiaq akimiaq	55
۶	akimiaq atausiq	16		١٢	iñuiññaq akimiaq atausiq	36		ν٢	malġukipiaq akimiaq atausiq	56
₹	akimiaq malġuk	17		١٢	iñuiññaq akimiaq malġuk	37		v۲	malġukipiaq akimiaq malġuk	57
Й	akimiaq piŋasut	18		١.٣	iñuiññaq akimiaq piŋasut	38		$\sqrt{h}$	malġukipiaq akimiaq piŋasut	58
Ŵ	iñuiññaġutaiļaq	19		١Ŵ	malģukipiaģutaiļaq	39		v₩	piŋasukipiaġutaiḷaq	59

TABLE OF INUPIAT COUNTING SYSTEM with Kaktovik numerals (first column) and Arabic numeral equivalents (third column)

\* "Suitchuq" is a cardinal, used to express the value of nothing or zero; "kisitchisagvik" is used as an ordinal to show order as when counting or to express the power of zero

Maya

0	1 •	2 ••	3 ●●●	4 ••••	
5	6 •	7	8	9	
10	11 •	12 ••	13 •••	14	
15	16 •	17 ••	18 ••••	19	
	—	—	—	—	
5	+	8	=	13	

E.g.

#### Base: 60

• hour, minutes

Ekari (Trans-New Guinea)

*èna ma gàati dàimita mutò* 1 and 10 és 60 71 [60 + (10 + 1)]

*muto* wìi
60 4
240 [4 x 60]

# **Base: 32**

Ngiti (Nilo-Saharan)

*ìfo wădhì* 4 32 128 [4 x 32]

#### **Base: 12**

• calendar

## Birom

ba-kuruba-ba ná  $|-\bar{a}||-b\bar{a}|$ pl-12 pl-2 + 2

26 [(2 x 12) + 2]

# Base: 8

# Northern Pame

kanuje?	tehiuŋ	rnu?				
3	8	3				
27 [(3 x 8) + 3]						

#### Base: 6

#### Kanum

swabra	ı ptae	ynaoaemyntamnao			
5	36	2	3.6		
200 [ $(5 \times 6^2) + (3 \times 6) + 2$ ]					

#### Ndom

1 sas	7 mer abo sas
2 thef	8 mer abo thef
3 ithin	9 mer abo ithin
4 thonith	10 mer abo thonith
5 meregh	11 mer abo meregh
6 mer	12 mer an thef

# **D.** Idiosyncrasies relating to bases

Portmanteau forms

Russian:	sorok
	40 [expected: 4 x 10]
English:	eleven
	11 [expected: 10 + 1]

Ugric language húsz, xus '20'

Balinese (Javanese, Madurese)

25	se-lae	'one thread (of Chinese coins)'
45	se-timan	'one opium packet (costing 45 Chinese coins)'
50	se-ket	'one tie (i.e. two threads of 25 Chinese coins)'
75	telung benang	'three threads (of Chinese coins)'
200	s-atak	'one bundle of 200 Chinese coins'
400	s-aman	'one gold (coin worth 400 Chinese coins)'
900	sanga	[unknown origin]

# Hindi: 1–100 irregular

0	1	2	3	4	5	6	7	8	9	
-		ek	do	tīn	cār	pāṁc	chah	sāt	āţh	nau
10	das	gyārah	bārah	terah	caudah	pandrah	solah	satrah	ațhārah	unnīs
20	bīs	ikkīs	bāīs	teīs	caubīs	paccīs	chabbīs	sattāīs	ațțāīs	untīs
30	tīs	ikattīs	battīs	taimtīs	cauṁtīs	paiṁtīs	chattīs	saimtīs	aŗtīs	untālīs
40	cālīs	iktālīs	bayālīs	taiṁtālīs	cavālīs	paimtālīs	chiyālīs	saimtālīs	aŗtālīs	uncās
50	pacās	ikyāvan	bāvan	tirpan	cauvan	pacpan	chappan	sattāva	ațțhāvan	unsațh
60	sāțh	iksațh	bāsațh	tirsațh	cauṁsaṭh	paiṁsaṭh	chiyāsațh	sarsațh	aṛsaṭh	unhattar
70	sattar	ikhattar	bahattar	tihattar	cauhattar	pachattar	chihattar	sathattar	aṭhhattar	unyāsī

80	assī	ikyāsī	bayāsī	tirāsī	caurāsī	pacāsī	chiyāsī	sattās	ațțhāsī	navāsī
90	nave	ikyānve	bānve	tirānve	caurānve	pacānve	chiyānve	sattānve	ațțhānve	ninyānve

French *quatre-vingt-douze* 4-20-2

92 [(4 x 20) + 12]

Welsh deu-naw

2-9

18 [2 x 9]

#### E. Exponentiation and higher Bases

English

 $10^1$  $10^2$  $10^3$  $10^6$ tenhundredthousandmillionChukches: Absence of exponentiationrqliq-qlikkin20-20

400 (20 x 20) – (highest numeral in traditional system)

#### 6. Arithmetic processes

#### 6.1. Addition

English *thirteen* (3+10) '13'

Hung. tizenhárom (10+3) '13'

1.1. explicit addition (all members of the addition are present)

1.1.1 unmarked type (no morpheme for marking addition)
Finnish *satayksi* (100+1) '101'
Hung. *harminckettő* (30+2) '32'
1.1.2. marked type (marking with suffixes, adposition, conjunction, lexical words etc.)
Hung. *tízenhárom* (10-LOC + 3) '13'
Mari *lu at ikte* (10 AND 1) '11'
Tawda Mansi *low təmər üki* (10 ON [postposition] 1) '11'

Mansi *akw-xujp-low* (1 "lying" 10) '11' 1.2. implicit addition (some members are missing) Finnish *yksi-toista* (1 "from the second [grop of ten]") '11' (! no 10) Finnish (arch.) *yksi-kolmatta* (1"from the third") '21' (! no 20) Mansi *wāt nūpəl akw* (30 - toward - 1) '21' (! no 20)

#### 6.2. Subtraction

Latin *un-de-viginti* one-from-twenty 19 [20 – 1] *duo-de-viginti* two-from-twenty 18 [20-2] Finno-ugric examples (only from historical perspective!) Finnish *kahdeksan* (2 [-10]) '8', *yhdeksän* (1 [-10]) '9' Hung. *kilenc* (? *kil-* 'out' + -*c* / -*nc* '10')

#### 6.3. Multiplication

English *two hundred* Finnish *kaksikymmentä* '20', kaksisataa '200' Hung. *háromszáz* '300' Mansi *kit sāt* (two hundred) '200'

Multiplication is usually unmarked, but there can be exceptions, e.g. Komi das jes das (10 x 10) '100'

#### **6.4. Division (actually: multiplication by fraction)**

Welsh *hanner cant* Welsh half hundred 50 [½ x 100] Hung. *félszáz* (half - hundred) '50' (! Normally *ötven*(5 x 10)) Hung. (arch.) *ötödfélszáz* (fifth - half - hundred) '450'

#### 6.5. Others:

#### Subtraction and addition

Ket *dɔŋas' bən's'aŋ* <sup>2</sup>ki? thirty without hundred 70 [100 – 30]

> *qus'am Ayam dəŋas' bən's'aŋ*  ${}^{2}ki?$ one left.over thirty without hundred 71 [(100 - 30) + 1; NB: not 100 - (30 + 1)]

#### Some implications regarding composite numerals and arithmetic processes: (Greenberg)

If there is subtractive numeral in a language  $\rightarrow$  there is also additive

Division  $\rightarrow$  Multiplication

Multiplication  $\rightarrow$  Addition

In subtractive composites:

8=10-2 is possible, but 2=10-8 is impossible

9=10-1 is possible, but 1=10-9 is impossible

If 8 is subtractive (10-2)  $\rightarrow$  also 9 is probably subtractive

Overcounting: a value as part of a group with an upper limit. It is a variant of serial addition.

Danish halv-tred-sinds-tyve

half-third-times-twenty

50 [half of the third twenty]

(Now usually: *halvtreds*)

Oriya paüne tini šata

three.quarters three hundred

275 [three quarters of the third hundred]

Moni (Trans-New Guinea)

bado hago (foot - 1) '11' (bado 'foot' refers to the next serie after hands: 15)

amo bado hago (other - foot - 1)

Eastern Turcic (arch.) yeti otuz (7 - 30) '27'

Mansi wāt nūpəl akw (30 - toward - 1) '21'

wāt-n akw (30-LAT - 1) '21'

### Pairing

Yaqui	1	séenu		
	2	wói		
	3	báhi		
	4	náiki		
	5	mámni		
	6	búsani		
	7	wó-busani	two-six (i.e. 'second six	x')
	8	wóh-naiki	two-four (i.e. 2 x 4)	$\leftarrow$
	9	bátani		
	10	woh-mámni	two-five (i.e. 2 x 5)	←

#### Japanese

1	hito	2	huta
3	mi	6	mu
4	yo	8	ya

#### Non-arithmetic structures

Sanskrit	10 <sup>8</sup>	arbudá-
	10 <sup>9</sup>	mahārbuda- (maha- 'big')
Italian	10 <sup>3</sup>	mille (pl mila)
	10 <sup>6</sup>	milione (-one augmentative)

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WALS = wals.info

#### TASKS:

- 1. Describe the numeral system of a chosen Finno-Ugric (or Turkic, or other) language! Take into consideration the numerals 1-1000 from the perspective of lexical typology!
- 2. What kind of numerals can you recognise in the following examples regarding their arithmetic base? In many cases the numerals can be analysed only historically! (Etymological dictionaries, vocabularies and grammars of the given languages can help you.)

Hungarian	negyven, ötven, hatvan, hetven, nyolcvan, kilencven '40' - '90'
	harminc '30'
Finnish	viisisataa kolmekymmentä kaksi '532'
Komi	<i>öкмыс '9'</i>
Mansi	xotpan nūpəl at '55'
	ontəllow '9'
Northern Khanty	iltamjon '9'
Khanty (folk., arch)	"sata jittĭ katn andŏm" '98'
Saamic (Arj.)	lokie naldne akxta (simplified transcription) '11'
Livonian	<i>ťum ťum</i> '100'

3. How could you explain the historical relation of Finno-Ugric numeral meaning '5' with the Samoyedic numeral meaning '10' (*witte* FU ??U 'five ') on the basis of Lexical Typology of numeral systems?

http://www.uralonet.nytud.hu/eintrag.cgi?id\_eintrag=1154

(Use László Honti's article!)

# Kinship terms

### INFUSE

### 3rd package 3\_2

### 1. Kinship terminologies (Jonsson 2001)

Different cultures employ different kinship terminologies. They differ with respect to which specific kin terms they include and how kinsmen are grouped together and labelled with different kin terms.

Kinship terminologies of the languages of the world can be grouped into different types. The set of types may differ from one typology to another depending on the criteria which the types are defined. Kin terms and kinship systems have been studied in both linguistics and anthropology.

#### 2. Some basic definitions (Jonsson 2001)

consanguineal kinship	= refers kinship related by blood
affinal kinship	= refers to kinship established through marital ties, not only between a husband and wife but also between a person and the consanguineal relatives of that person's spouse.
lineal kinship	= either the direct ancestors or descendants of a particular Ego.
collateral kinship	= composed of Ego's siblings and their descendants and the siblings his/her lineal kin of ascending generations and their descendants as well. They can be pictured as side branches off

of the main trunk that links a person to his ancestry and progeny.



(https://www.umanitoba.ca/faculties/arts/anthropology/tutor/fundamentals/lincolat.html)

parallel kinship	= involves sibling ties where the siblings in question are of the
	same sex
cross kinship	= involves sibling ties where the siblings are of oppsite sex

#### 3. Earlier typologies (Read 2013, Jonsson 2001, Schwimmer 2003)

#### Morgan (1870):

- two major criterial distinctions between kinds of kinship terms:
  - **classificatory** terms, which subsume a relatively large number of biological kin types
  - **descriptive** terms, which subsume relatively small numbers of types preferably having unique referents.

Murdock (1949):

- concentrating on the terms for cousins and siblings
- established six types:
  - **Hawaiian** type = same terms for cousins and for siblings
    - the most classificatory type



- Ego distinguishes between relatives only on the basis of sex and generation. Thus there is no uncle term; (mother's and father's brothers are included in the same category as father). All cousins are classified in the same group as brothers and sisters.
- **Eskimo** type = different terms for cousins and siblings (as in English)



 is marked by a bilateral emphasis - no distinction is made between patrilineal and matrilineal relatives - and by a recognition of differences in kinship distance - close relatives are distinguished from more distant ones.

- **Sudanese** type = separates siblings from cousins and distinguishes among some different cousin types (e.g. paternal cousins vs. maternal cousins)
  - e.g. Latin, Turkish
  - the most descriptive type



- Ego distinguishes between his father (A), his father's brother (E), and his mother's brother (H). There are potentially eight different cousin terms.
- **Iroquois** type = equates parallel cousins with siblings but separates these from cousins



- is based a principle of **bifurcate merging**. Ego distinguishes between relatives on his mother's side of the family and those on his father's side (bifurcation) and merges father with father's brother (A) and mother with mother's sister (B). Accordingly, father's brother's children and mother sister's children (parallel cousins) are merged with brother and sister (C and D).
- **Crow** type = is like the Iroquois with regards to siblings and cousins, but is different in that it also equates maternal cross cousins with brother's children, thus skewing generations



• Ego generally employs a bifurcate merging pattern but applies a skewing rule to lump relatives within his father's matrilineage. Thus father's sister's son gets the same term as father (A) and father's sister's daughter, the same term as father's sister (E).

- This system is generally found in societies with strong matrilineal kinship emphases.
- **Omaha** type = a mirror image of the Crow type, since it equates paternal cross cousins with sister's children



- Ego uses the same categorizations for father, father's brother and mother's brother that he would in an Iroquois terminology. However, there is a significant difference in cousin terminology. Parallel cousins are merged with siblings, however cross-cousin terms are quite peculiar and cut across generational divisions. Ego uses the same terms for his mother's brother's son as he does for his mother's brother (F) and the same term for mother's brother's daughter as for his mother (B).
- As such Omaha terminologies are associated with societies that have a strong patrilineal emphasis in their social organization.

More recently, refined subdivisions of Murdock's six classes have been made, e.g. Dziebel 2007:211-254, Pericliev 2011:20-127.

# 4. Markednes theory and kinship terms (Greenberg 1966)

- Consanguineal kin terms are unmarked as against affinal kin terms (e.g. father-in-law has phonetic expression where father has none).
- Ascending kin terms are unmarked as against descending kin terms of equal genealogical distance from the anchor (e.g. mother is normally more frequent in texts daughter).
- Lineal kin terms are unmarked as against collateral kin terms (e.g. cousin lacks a distinction in gender while all English lineal kin terms have such a distinction).
- Kin terms denoting kin types of generations more remote from the anchor are marked as against kin terms denoting kin types of generations less remote from the anchor (e.g. grandfather has phonetic expression where father has none).

# **5.** Universal generative sequence for the construction of a kinship terminology structure (Read 2013)

# (1) Center Position

The center position of the terminology is a self position, which may be sex marked depending on the terminology.

# (2) Ascending Structure

Form a structure of ascending terms, where an ascending term expresses a kinship relation between ego and an alter who is before ego in a birth order sense.

The primary ascending terms consist of a set of parental terms = {'father', 'mother', 'parent'} and sometimes a set of sibling terms = {'older or ascending brother', 'older or ascending sister', 'older or ascending sibling'}.

#### (3) Descending Structure

= isomorphic to the ascending structure, meaning that the descending structure has the same number of generators as the ascending structure.

The descending structure uses the same self term as does the ascending structure. Each structural equation for the ascending structure is repeated as a structural equation for the descending structure, but written with the corresponding descending generator in place of an ascending generator (see Figure 6C).



(Read 2013, Figure 6)

(A) Self concept forms the central position of a terminology structure. (B) An ascending structure is generated from {self, parent}. (C) A descending structure based on {self, child} is generated isomorphic to the ascending structure. (D) The structural equation parent of child = self defines parent and self to be reciprocal kin terms.

Cross products between ascending and descending terms are formed and reduced using the equation for reciprocal generating terms. Each generated position corresponds to a kin term or a pair of kin terms, in the American Kinship Terminology

#### (4) Reciprocity

= is a central concept for kinship systems, is structurally expressed between an ascending generator and a descending generator by a structural equation of the form (ascending generating term) of (descending generating term).

#### (5) Sex Marking

#### (6) Affinal Terms

#### (7) Rules For Local Structure

Additional structural properties may be introduced, such as, for the AKT where limitations are placed on which terms remain sex marked and there are structural rules for the elaborated cousin terms. E.g., the sex marked kin terms father, mother, son and daughter are since spouse of father = mother, spouse of mother = father and son and daughter are the reciprocal terms for father and mother. In contrast, cousin is not sex marked since spouse of cousin is (logically) not a kin term.

#### (8) Cultural Modifications

• local modification of the terminology may be made using cultural criteria external to the terminology, such as the kin term 'younger brother' of 'mother' in the Tongan terminology is introduced for reasons relating to inheritance.

# 7

#### **Other aspects**

#### **Investigation of kinship terms**

# **1.** Kinterms in historical linguistics

- cognate kin terms in related languages are often compared with each other to help establishing genetic patterns between languages and groups of languages. Kin terms are dealt with in many works on Uralic historical linguistics.

#### 2. Kin terms in the theory of semantic (lexical) field

- emphasis on differencies

E.g.: (Károly)

Hungarian			
	nagys	szülők	
nagyapa nagyanya			
apai	anyai	apai	anyai

German				
	Große	eltern		
Groß	vater	Großi	nutter	
_	-	_	_	

Russian			
		-	
dedu	eshka	babu	ishka
d. po otcu	d. po materi	b. po otcu	b. o materi

Swedish				
-				
	-		-	
farfar	morfar	farmor	mormor	

# 3. Investigation of the rules of the system $\rightarrow$ comparison of different systems $\rightarrow$ lexical typology of kinship terms.

E.g.: Compare the following tables:

Table A: <u>Common ways of assigning kin terms to sibling types from the perspectives of lexical field</u>

Malay	English	Hungarian		
šudara	sister	nővér	húg	
	brother	báty	öcs	

#### Table B: Common ways of assigning kin terms to sibling types crosslinguistically (Jonsson)

(Nerlove/Romney (1967) investigate sibling terminologies cross-linguistically, and find that out of 4140 logically possible ways to assign kin terms to the eight kin types older or younger brother or sister of male or female (with one and the same term for all of them as one extreme and eight different terms as the other extreme) only 12 account for as many as 87% (214/245) of the terminologies in their sample.

#### DIVISION OF SIBLING TERMS NUMBER

A: sibling		14
A: brother B: sister		21
A: elder brother B: younger brother C: sister	3	
A: elder sibling B: younger sibling		21
A: elder brother B: elder sister C: younger sibling		38
A: elder brother B: younger brother C: elder sister D: younger sister	78	
A: parallel sibling B: cross sibling		6
A: parallel sibling B: cross brother C: cross sister		6
A: cross sibling B: parallel brother C: parallel sister	6	
A: parallel brother B: parallel sister C: cross brother D: cross sister	5	
A: elder parallel sibling B: younger parallel sibling C: cross sibling	9	

A: elder parallel sibling B: younger parallel sibling C: cross brother D: cross sister 7

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# TASKS

- 1. Describe and picture (schematize) the kinship-system of a chosen language. (It can be your mother tounge, too.)
- 2. Examine the following kinterms from the perspective of markedness theory!

(a) Finnish setä, eno, täti and (b) Ngan. d'esigej 'parents'

- 3. Can you mention some Uralic examples for polysemy of kinterms (e.g. English *sister*)? (Are they extrafield and/or intrafild polysemy?)
- 4. What kind of connotative meaning may a kinterm have? How can a connotative meaning influence the usage of a kinterm?
- 5. What kind of changes can happen in the kinshipterm system of a language? Could you mention some "new" kinterms of your mother tounge?
- 6. The following figure shows the Kazym Khanty kinterms (only the relatives within the stem/tribe) and their meanings. How could you explaine the system behind these terms?

(Wardaugh Chapter III./9 (Kinship) may help you!)

women

http://home.lu.lv/~pva/Sociolingvistika/1006648\_82038\_wardhaugh\_r\_an\_introduction\_t o\_sociolinguistics.pdf

men

	śatśaśi	
śaś-ŏpi		aki
	aśi	
ŏpi		jaj
	EGO	
apəl-ne		apśi
ewi		рŏх
xia-ne		хілі

*śatśaśi* 'father of my father'

- *śaś-ŏpi* 1. 'elder sister of my father' 2. 'sister of father of my father'
- *aki* 1. 'elder brother of my father' 2. 'brother of father of my father' 3. 'my more distant male relative within the stem, who is older me 2 generations'

- *aśi* 'my father'
- *ŏpi* 1. 'my elder sister' 2. younger sister of my father 3. doughter of elder brother of my father 4. my more distant female relative, who is older me 1 generation
- *jaj* 1. my elder brother 2. younger brother of my father' 3. son of the elder brother of my father 4. my step-father 5. my more distant male relative, who is older me 1 generation
- EGO me
- *apol-ne* 1. 'my younger sister' 2. daughter of my elder brother 3. doughter of the younger brother of my father 4. my more distant female relative, who is younger me 1 generation (daughter of *jaj* 4.)
- *apśi*1. 'my younger brother 2. son of my elder brother 3. son of the younger brother of my father 4. my more distant male relative, who is younger me 1 generation (son of *jaj* 4.)
- ewi my daughter
- *pŏx* my son
- *xin-ne* granddaughter + daughter of *apśi*
- *xi*<sub>*i*</sub>*i* grandson + son of *apśi*

# LEXICAL TYPOLOGY OF COLOUR TERMS

INFUSE 2016

package 3\_3

#### 1. Early researches: emphasis on differences

Gleason (1961:4): "There is a continuous gradation of color from one end of the spectrum to the other. Yet an American describing it will list the hues as red, orange, yellow, green, blue, purple-or something of the kind. There is nothing inherent either in the spectrum or the human perception of it which would compel its division in this way." (Cf. Table1.)

Relativist question: it is language that determins perception (cf. Sapir and Whorf), or it is perception that determines language.

					500 	450 		350 
rw.dolČre-svetio	červená	oranžová	žlutá	zelená	mo	drá indigov	á fialová	UV

Table.1.

# 2. Turning-point: Berlin, Brent - Kay, Paul: Basic Color Terms: Their Universality and Evolution. 1969.

"We argue, then, in direct opposition to Gleason and other relativists, that the human perception of color offers an explanation of why English speakers segment the visual spectrum as they do-and why, furthermore, speakers of other languages exhibit the limited and systematic set of alternative segmentations of the color space that they do. Working with a biologically based understanding of basic color-term semantics, we can show the natural relations that exist between the numerous color categories encoded in highly differentiated color terminologies, such as English, and the fewer categories encoded in languages with less differentiated and therefore superficially simpler terminologies." (Kay -McDaniel 1978) (Their main methodological aspects:

- 1: Concentrating on basic colour terms.
- 2: Concentrating on the typical elements of a category.
- 3: Standardized colour stimuli (329 Munsell chips, Table 2.)



Table 2.

#### **2.1. Basic colour terms**

# 2.1.1. Primary criteria

- Monolexemic its meaning is not predictable from the meaning of its parts, e.g. *\*lemon-coloured, \*blue-green,* but *grey, red.*
- Their extensions aren't included within those of any other colour terms, e.g. \**crimson: red,* \**scarlet: red*, Finnish \**viininpunainen : punainen*
- Applications must not be restricted to a narrow class of objects, e.g. \*blond: humans, Finnish kastanja: hair, Hung. szőke: hair, kese: horse.
- psychologically salient for informants, e.g. \**crimson*, \**scarlet*, \**bluish*, Hung.
   *magenta* 'kind of pink colour'. Saliency: a) a tendency to occur at the beginning of elicited lists of colour terms, b) stability of reference across informants and occasions of use, c) occurrence within the idiolects of all informants.

# 2.2.2. subsidiary criteria

• the dubious form should have the same distributional potential as the previously established basic terms;

- colour terms that are also names of an object are suspect. This criterion would exclude *orange* in English, if it were a dubious case on the basic criteria (1)–(4). Finnish *persikka* 'peach', *luumu* 'plum', Hung. *narancs*.
- recent foreign loanwords may be suspect, e.g Finnish kretliini 'violet', Hung. pink.
- In cases where lexemic status is difficult to access [criterion (1)], morphological complexity is given some weight as a secondary criterion. For example, the Finnish term *sinivihreä* 'blue green' might be eliminated by this criterion. (Koski, Uusküla)

# 3. Method

98 languages were investigated (20 languages in more detail: primary experimental data, 78 languages: literature, vocabularies)

(i) Basic colour words were elicited from the informants

(ii) Each subject was instructed to map both the focal point and the outer boundary of each of his basic colour terms on the presented Munsell table.

# 4. Results

- The number of basic colour terms is between 2 and 11(12).
- If a language has 11 (12) basic colour terms, then the encoded categories are WHITE, BLACK, RED, GREEN, YELLOW, BLUE, BROWN, ORANGE, PINK, PURPLE, and GREY
- Languages with 11 (12) basic colour terms: e.g. Arabic (Lebanese), Bulgarian, English, German, Hebrew, Hungarian (12! *piros - vörös*), Japanese, Korean, Russian (12! *sinij - goluboj*), Spanish, Zuni etc.
- If a language has fewer than 11 basic colour terms, then there are strict limitations on which categories it may encode
- 22 actually occurring types of basic colour lexicon (= 22 types of categorization)
- of the 2,048 (that is 211) possible combinations of the eleven basic color terms, just twenty-two, about 1 per cent, are found to occur in fact.

This types can be described by 7 implicative universals that corresponds to 7 stages.

- (I) All languages contain terms for WHITE and BLACK: 1={W, B}
- (II) If a language contains three terms, then it contains a term for RED: 2={W, B, R}

- (III) If a language contains four terms, then it contains a term for either GREEN or YELLOW: 3={W, B, R, G}, 4=={W, B, R, Y}
- Etc. (Cf. Table 3.)



Table 4.

# 5. Colours and prototypes

- Colour categories decompose the colour space in partially overlapping subsets
- Colour categories are prototype categories

(E.g. Eleanor Rosch Heider (1973), Natural Categories. Cognitive Psychology 4, 328-350.) Some colours are better examples of a given category than others are. We can say a good red, slightly red. There is usually a single colour which is the best example of the category (the prototype) The further a colour is from the prototype the less good it is as an example of the colour category. Colour categories have fuzzy boundaries. It's not clear exactly which colours are members of the category.

#### Colour terms and prototypes (Table 5.)

- The prototypes of basic terms from all languages fall into discrete clusters.
- People are very consistent in their choice of prototype (but not in where they place boundary colours).
- 11 foci were identified!





#### **Colour word evolution**

- The 7 stages introduced earlier (Table 3-4.) can be taken as corresponding to basic evolutionary stages of colour lexicon
- The logical ordering corresponds to a temporal ordering (I.: the "earliest stage" -- VII. the mos "developed" stage)



#### **Later Revisions**

Since Berlin and Kay's (1969) original study, a large amount of data concerning the basic color terms of a very wide range of languages from throughout the world have been collected. This has led to several revisions of Berlin and Kay's theory (Kay, 1975; Kay et al., 1997; Kay et al., 1991; Kay & Maffi, 1999; MacLaury, 1997a)

# 6. Color Term sin the Uralic languages

>>> Uusküla – Hollman – Sutrop article (2012)

#### Task

Choose one color from the list:

white

black

red

yellow

green ~ blue!

Compare its lexemes in three languages from the following point of view:

- formal characteristics (parts of speech, verbal forms, morphology etc.)
- diachrony (etymology)
- usage (e.g. vörös and piros in Hung.)
- metaphoric relations (e.g greenback, purple states, green mile, yellow journalism etc.
   in English) as many as you can collect with explanation!

(At least one of the three languages must be different from the five languages analysed in the Uusküla – Holmann – Sutrop article.)

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http://www.blutner.de/color/Color\_Words.pdf