

Variability of Languages in Time and Space

Variability in Morphology – part 1

- Linguistic signs
- Grammatical vs. Lexical meanings
- Derivational meanings
- Structural typology
 - Parameters of variation
 - Types of morphology: agglutinating, fusional, isolating, polysynthetic
- Linguistic quiz

do not have their own meaning

speech sounds

p	b					t	d
m		ŋ				n	
ʋ						r	
		v				r	
ϕ	β	f	v	θ	ð	s	z
						ʃ	ʒ

phonemes

g, r, e, m, n, b.....

syllables

pro+fon.do
dic.ti.o.na.ry

morphemes

child + ish + ness

girl + s

un + gentle + man + li + ness

lexemes (words)

understand

woman

selection

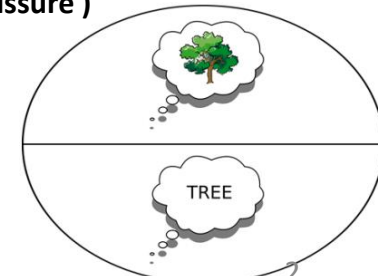
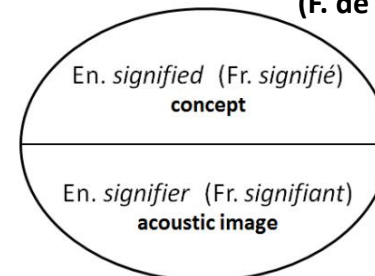
have their own meaning

Linguistic signs



- The term **linguistic sign** is used for pairing of a particular sound sequence (form) and a particular meaning
- A linguistic sign is composed of two elements:
 - *signified* (= the **concept** associated with the acoustic image = **meaning**)
 - *signifier* (= **acoustic image** of the word = **form**)

(F. de Saussure)



Basic features of linguistic signs

- **arbitrariness**
 - the relation between the signifier and signified is not motivated, given by convention
- **linearity** of the signifier (form)
 - in time for spoken texts
 - in space for written texts

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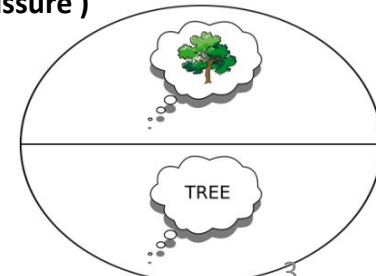
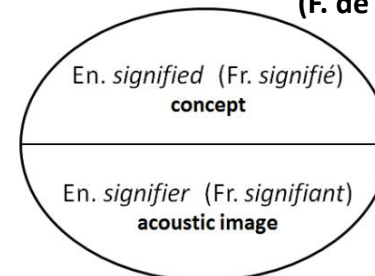
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Typology in Morphology

- Morphological typology receives relatively little attention
 - Of all the aspects of language, morphology is the most language-specific → least generalizable
 - Word classes are language-specific.
 - Even the very presence of a meaningful morphological component is language-specific.

Typology in Morphology

- Structural typology
 - How **grammatical meanings** are built in languages
- Typology of grammatical categories and meanings
 - Which **grammatical meanings** are possible
 - Which realizations they have in different languages

Distinction: Lexical and Grammatical Meaning

Grammatical meaning

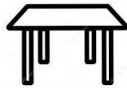
Component of meaning is repeating in individual forms of different words

1. Does not change the basic lexical meaning

girl – girls



table - tables



2. Regularly applies to different words

girls, tables, noses, computers –
grammatical meaning of **plurality**

Lexical meaning

Basic meaning of the word which is listed in the dictionary, individual meaning:

- concrete concepts



- abstract concepts

idea sense imagination

- predicates

run read cause



Distinction: Lexical and Grammatical Meaning

Grammatical meaning

- affixation of various kinds
 - affixes, inflexion, combination of both
- non-segmental markers
 - phonemic and tonal alternations,
 - reduplication,
 - conversion
- clitics
- special “function” words (auxiliaries, prepositions)

Lexical meaning

- dictionary items, individual words, autonomous units
- in morphology, typically **roots**

Distinction: Lexical and Grammatical Meaning

Grammatical meaning

- Non-universal, different distribution in languages
- Closed set of units
 - Changes are very slow and apply to the whole language
- Are inter-linguistic, abstract, general, “additional”
 - They classify, specify, modify or combine lexical meanings
- Easily structured
 - well-organized evident oppositions like ‘singular – plural’, ‘present – past – future’
 - obligatorily expressed in a subset of words

Lexical meaning

- Universal, present in all languages, absolute majority
- Open set of units
 - Constantly changes without “changing the language”
- Are linked to something outside language
 - objects, processes, events, properties, relations...
- Not easily structured

Relativeness of the Distinction: Evidentiality

- No grammatical evidentials
 - English *apparently, it looks like*
- Verbal affix or clitic
 - Korean, Japanese,
- Part of the tense system
 - Turkish
- Separate particle
 - Cantonese, Basque
- Modal verbs
 - in germanic languages : Dutch *zouden*, Danish *skulle*, German *sollen*
 - French, Finnish
- Syntactic means
 - Lithuanian, Latvian, Estonian

		Turkish
a.	Ahmet	gel-di.
	Ahmet	COME-PST.DIR.EVD
		'Ahmet came.' (witnessed by the speaker)
b.	Ahmet	gel-miş
	Ahmet	COME-PST.INDIR.EVD
		'Ahmet came.' (unwitnessed by the speaker)

Matthews, 1998	Cantonese
Sik dak wo5	
eat can WO	
'(I'm told) (we) can eat.'	*Implicit subject



Grammatical meanings are language-specific!

Yesterday I met an acquaintance. (*English*)

Вчера я встретил знакомую. (*Russian*)

Včera jsem potkal známou. (*Czech*)

Ayer encontré a una conocida. (*Spanish*)

Hôm qua tôi gặp một người quen. (*Vietnamese*)

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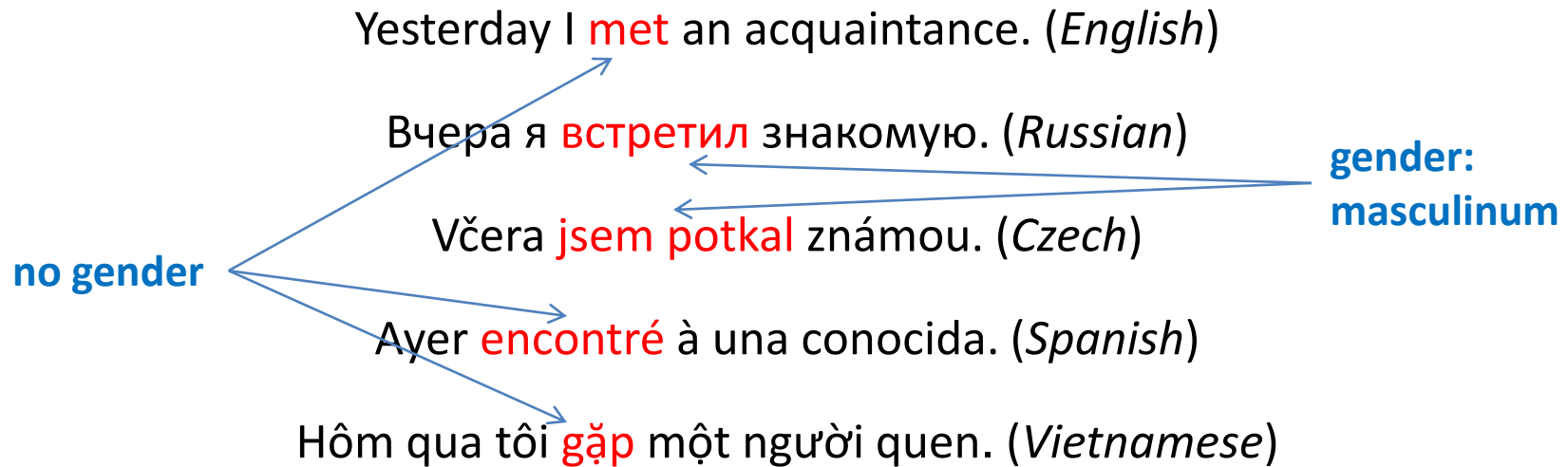
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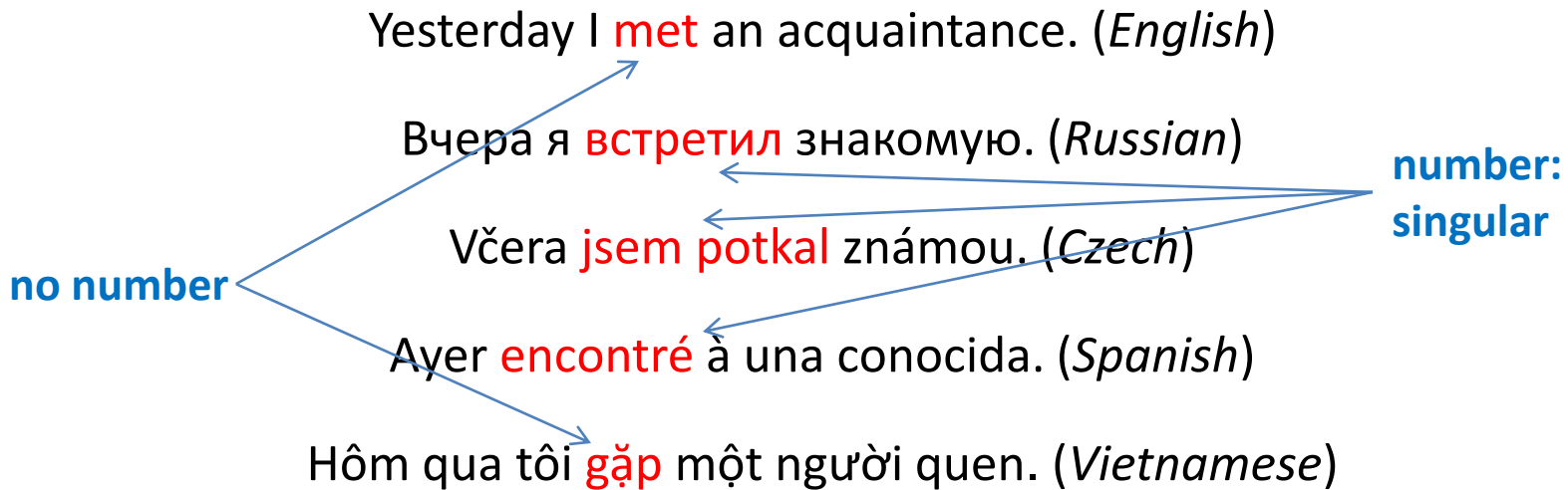
no past tense

past tense

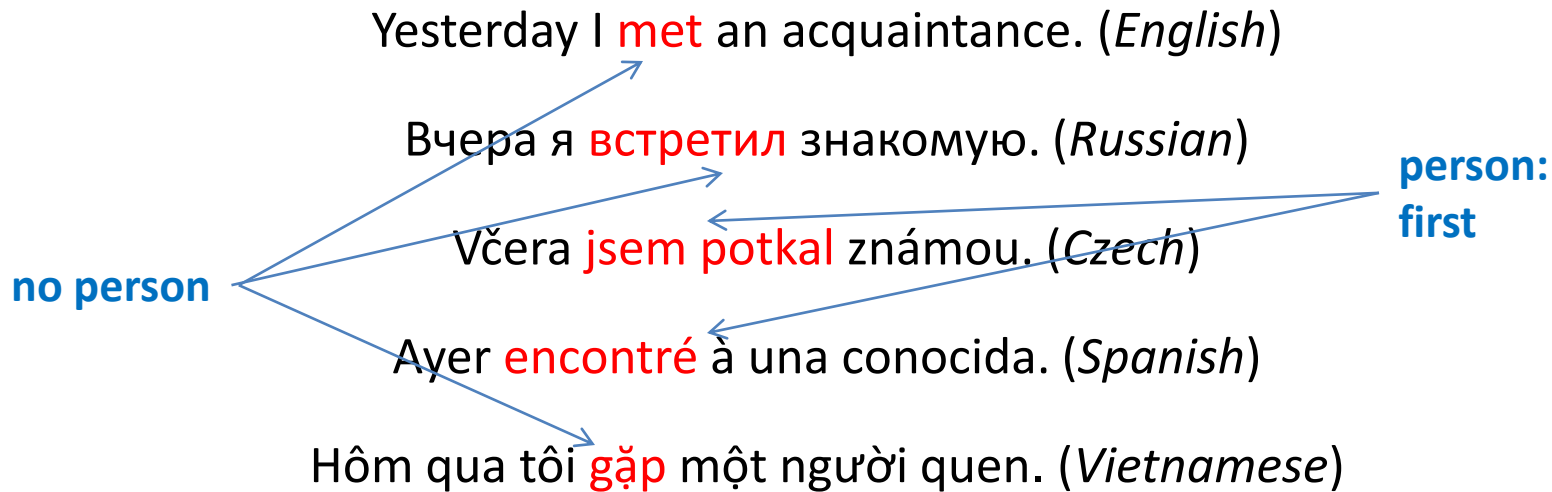
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no gender

gender:
woman

Relativeness of the Distinction: Lexical and Grammatical Meaning

Inflective

Derivational

Lexical

play-s

1. less concrete
2. broader compatibility
3. more standard realization
4. more 'collaboration' with syntax (e.g. agreement with adjectives)
5. rarely expressed within a root
6. further from the root (*play-er-s*)
7. less able to change POS (*play_V* → *plays_V*)

play-er

1. more concrete (place, instrument, language)
2. narrower compatibility (e.g. language only to places)
3. less standard realization (e.g. >10 affixes for 'inhabitant' in Spanish)
4. less 'collaboration' with syntax
5. more often may be expressed lexically (*baker, painter* but *mechanic, surgeon*)
6. closer to the root (*play-er-s*)
7. more able to change POS (*play_V* → *player_N*)

play

Relativeness of the Distinction: Possessivity

- Derivational or syntactic ways in English:
 - *my mother's sister*
 - *the sister of my mother*
- Derivational or fleective ways in Slavic languages:

Czech

maminč- in -a	sestr-a
mother- POSS -Nom.Sg	sister-Nom.Sg

sestr-a	mamink- y
sister-Nom.Sg	mother- Gen.Sg

Relativeness of the Distinction: Causative

- Lexical ways to express causation exist in most languages
 - en. *rise* → *raise*, *lie* → *lay*, *sit* → *set*
 - en. *make*: *kill* = *make die*
- Japanese, Turkish, Mongolian – causative voice

Turkish

Ali	Hasan-i	öl- dür -dü
Ali_NOM	Hasan-ACC	die-CAUS-PAST
<i>Ali killed Hasan.</i>		

Structural Typology


- How grammatical meanings are built in languages
- Approaches to structural typology
 - Holistic approach: global characterization of the entire language according to a small number of typological characteristics
 - too ambitious
 - Partial typology:
 - moving away from classifying languages into ideal types
 - specific phenomena or individual grammatical constructions are studied

Parameters of Variation

- Stems and Affixes
 - Isolating, agglutinating, fusional, polysynthetic morphology

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- Separatist vs. cumulative affixes
 - Does an affix has one or combines more meanings at the same time?

Turkish		Latin	Czech
<i>ev-ler-i</i>	<i>houses (ACC)</i>	<i>dom-os</i>	
house-PL-ACC		house-PL+ACC	

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- The form of morphemes
 - Segmental morpheme (different types), operations (e.g. reduplication), suprasegments

<i>Reduplication</i>			Indonesian
rumah	<i>house</i>	rumah-rumah	<i>houses</i>
perubahan	<i>change</i>	perubahan-perubahan	<i>changes</i>

Expression of plural

<i>Special word</i>			Hawaiian
'elua	a'u	mau	i'a
<i>two</i>	<i>my</i>	<i>pl</i>	<i>fish</i>
<i>my two fishes</i>			

<i>Tones</i>			ngiti (Sudan)
kamà	<i>chief</i>	kámá	<i>chiefs</i>
màlàyikà	<i>angel</i>	màlàyíká	<i>angels</i>
màlimò	<i>teacher</i>	màlímó	<i>teachers</i>

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- Monosemous vs. polysemous affixes

German						
	SINGULAR			PLURAL		
	MASC	NEUT	FEM	MASC	FEM	NEUT
NOM	<i>der</i>	<i>das</i>	<i>die</i>	<i>die</i>	<i>die</i>	<i>die</i>
ACC	<i>den</i>	<i>das</i>	<i>die</i>	<i>die</i>	<i>die</i>	<i>die</i>
GEN	<i>des</i>		<i>der</i>	<i>der</i>	<i>der</i>	<i>der</i>
DAT	<i>dem</i>		<i>der</i>	<i>den</i>	<i>den</i>	<i>den</i>

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- Invariance vs. variance of affixes
 - Declination classes

	'woman'	'student'	'money'
NOMINATIVE:	žèn-a	student-0	nòvac-0
ACCUSATIVE:	žèn-u	student-a	nòvac-0
GENITIVE:	žèn-e	student-a	nòvc-a
DATIVE:	žèn-i	student-u	nòvc-u
INSTRUMENTAL:	žèn-om	student-om	nòvc-em

Finnish

	'cupboard'	'Matti'	'school'
NOMINATIVE:	kaappi-0	Matti-0	koulu-0
GENITIVE: ('of')	kaapi-n	Mati-n	koulu-n
ELATIVE: ('from')	kaapi-sta	Mati-sta	koulu-sta
ADESSIVE: ('at')	kaapi-lla	Mati-lla	koulu-lla
INESSIVE: ('in')	kaapi-ssa	Mati-ssa	koulu-ssa

Serbo-Croatian

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- Overt vs. zero affixes
 - What kind of affixes have overt forms and what kinds are zero?

	SINGULAR	PLURAL
LATIN:	<i>uxor</i> 'wife'	<i>uxor-es</i> 'wives'
SOUTHERN BARASANO:	<i>kahe-a</i> 'eye'	<i>kahe</i> 'eyes'
SWAHILI:	<i>ki-su</i> 'knife'	<i>vi-su</i> 'knives'
MANDARIN:	<i>ren</i> 'man'	<i>ren</i> 'men'

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- The order of morphemes
 - e.g. *stem – deriv – number – case*

Isolating

Agglutinating

Fusional

Polysynthetic

Analytic

Synthetic

Thai

Khǎw nâŋ loŋ.
He sit down
'He sat down.'

Turkish

Gít-me-di-m
go-no-PST-pers1
'I didn't go.'

Hungarian

leg-meg-vezteget-het-etlen-ebb-ek-nek
SUP-PRF-bribe-POSS-PRIV-CMP-PL-DAT
'to those who are least bribable'

Types of morphology

- Stems and Affixes
 - What combinations of stems and affixes are possible in a language?
- Separatist vs. cumulative affixes
 - Does an affix has one or more meaning at the same time?



Agglutinating morphology

- A word may consist of more than one morpheme, mostly many morphemes
- The boundaries between morphemes in the word are always clear-cut
- One morpheme designates one grammatical meaning
- Just a few exceptions (almost no “irregular” verbs in Japanese, Turkish)

Turkish

	Singular	Plural	<i>adam</i> ‘man’
Nominative	<i>adam</i>	<i>adam-lar</i>	
Accusative	<i>adam-ı</i>	<i>adam-lar-ı</i>	
Genitive	<i>adam-ın</i>	<i>adam-lar-ın</i>	
Dative	<i>adam-a</i>	<i>adam-lar-a</i>	
Locative	<i>adam-da</i>	<i>adam-lar-da</i>	
Ablative	<i>adam-dan</i>	<i>adam-lar-dan</i>	

- Frequent in Turkish, Indonesian, Eskimo, Hungarian, Japanese, Basque, etc.



(flective, inflective) **Fusional morphology**

- no clear-cut boundaries between morphemes
 - alternations
- the expression of different categories within the same word is fused together to give a single unsegmentable morpheme
- restrictions to morpheme combinations
 - affix variance

Czech

ruk-a 'hand'

ruc-e 'hand' (N.Pl, Lok&Dat. Sg)

ruč-n-í 'hand' (adj.)

Marie sp - í

'Mary' 'sleep' – 3.pers.+SG+present

'Mary is sleeping.'

přátel-é

'friends'

politic-i

'politicians'

vítěz-ové

'winners'

Nom+Plural

Polysynthetic morphology



- Lexical morphemes are combined together into a single word
- Words are composed of many morphemes that have independent meaning
- Long "sentence-words"
- High morpheme-to-word ratio
- Morpheme and word boundaries are not clear cut
- Subject may be separated, but the rest stays very close

Polysynthetic morphology



In Paleosiberian Eskimo-Aleut languages:

Chukchi

tameynəlevtəpəytərkən

tə|meynə|levtə|pəyt|ərkən
 1.SG -'big'-'head'-'ache'-IMPF
 'I have a fierce headache'

Yupik

tuntussuqatarniksaitengqiggtuq

'He had not yet said again that he was going to hunt reindeer.'



Greenlandic

Aliikusersuillammassuaanerartassagaluarpaalli.

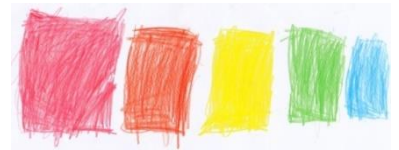
aliiku-sersu-i-llammas-sua-a-nerar-ta-ssa-galuar-paal-li
 entertainment-provide-SEMITRANS-one.good.at-COP-say.that-
 REP-FUT-sure.but-3.PL.SUBJ/3SG.OBJ-but

'However, they will say that he is a great entertainer, but ...'



Isolating and Analytical morphology

- Grammatical meanings are expressed with function words
 - One word – one morpheme
- More of isolation → Less of morphology
- Very important word order
- Many compound words



Vietnamese

Khi tôi đến nhà bạn tôi, chúng tôi bắt đầu làm bài.

when I come house friend I plural I begin do lesson

“When I came to my friend’s house, we began to do lessons.”

English?

I am a student

We are students.

I love spring.

You are a student

You are students.

anti-dis-establish-ment-arian-ism

He/she/it is a student

They are students.

EN. The dog of my father is barking.

def.

Gen. poss.

praes. actual

CZ. Tatínkuv

farther+poss

pes

dog+NomSg

štěká.

bark+praes.

Turkish – Latin – English

Given Turkish word forms and their translations into Latin and English

yazmışım	—	I've probably written
yazmışsın	—	You _{_sg} have probably written
yazmış	—	He has probably written
yazmışsınız	—	You _{_pl} have probably written
yazar	—	(he) writes
yazarlar	—	(they) write

çalışırım	—	laboro
çalışır	—	laborat
çalışırsın	—	laboras
çalışırlar	—	laborant
çalışırsınız	—	laboratis
yazarsın	—	scribis

Translate:

into Turkish: scribo, They have probably written

into Latin: (he) writes, yazarsınız

into English: scribitis, yazmışlar

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