

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

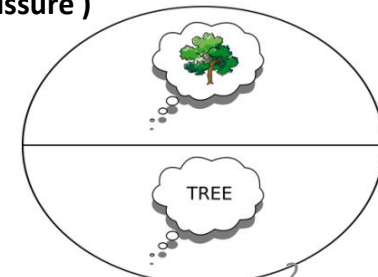
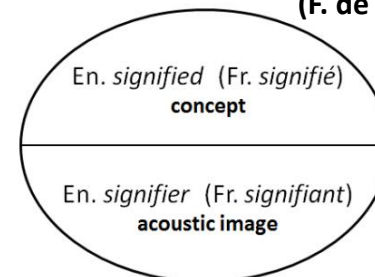
have their own meaning

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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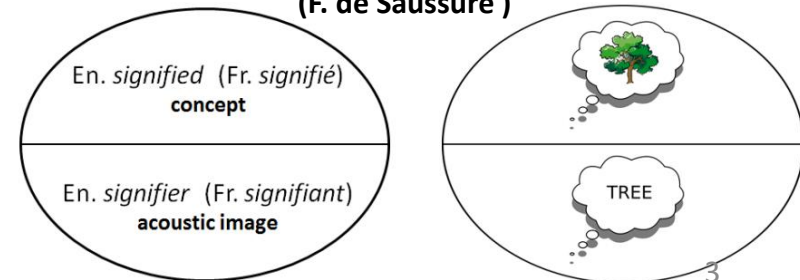
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Typology in Morphology

- 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

girl  *table* 

- 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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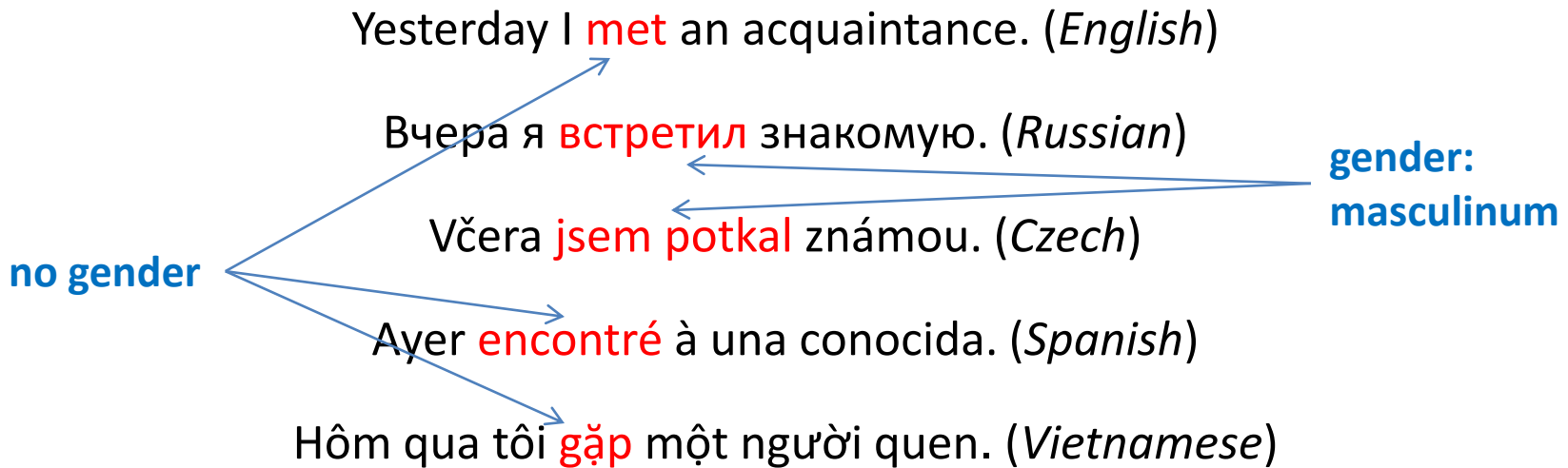
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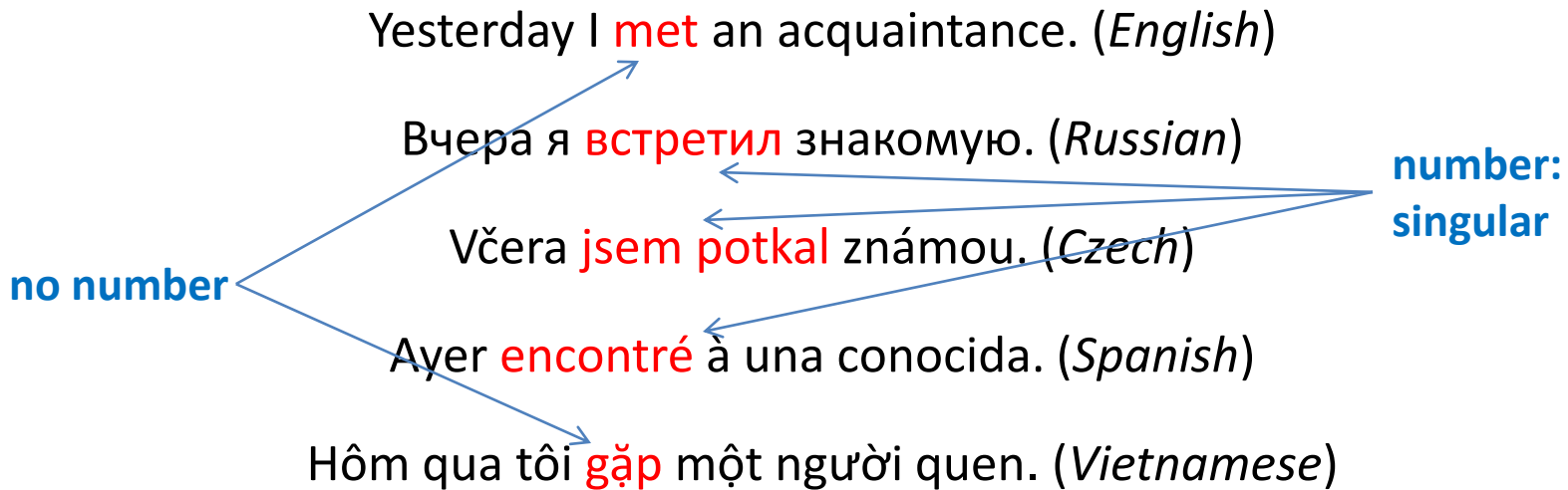
no past tense

past tense

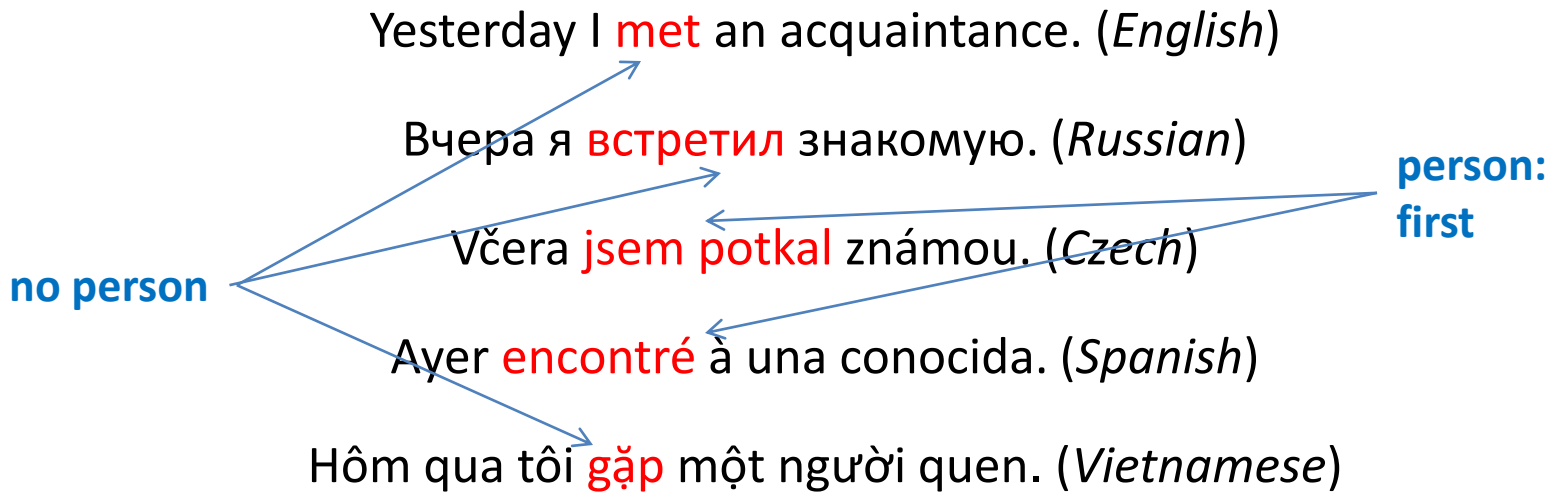
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no gender

gender:
woman

Relativeness of the Distinction: Lexical and Grammatical Meaning

Flective

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 flective 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	
<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), suprasegmentals

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

<i>Special word</i>				Hawaiian	<i>Tones</i>				ngiti (Sudan)
<i>'elua</i>	<i>a'u</i>	<i>mau</i>	<i>i'a</i>		<i>kamà</i>	<i>chief</i>	<i>kámá</i>	<i>chiefs</i>	
<i>two</i>	<i>my</i>	<i>pl</i>	<i>fish</i>		<i>màlàyikà</i>	<i>angel</i>	<i>màlàyíká</i>	<i>angels</i>	
<i>my two fishes</i>					<i>màlimò</i>	<i>teacher</i>	<i>màlímó</i>	<i>teachers</i>	

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- Monosemous vs. polysemous affixes

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

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- Invariance vs. variance of affixes
 - Declination classes

	'woman'	'student'	'money'
NOMINATIVE:	žèn-a	student-Ø	nòvac-Ø
ACCUSATIVE:	žèn-u	student-a	nòvac-Ø
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-Ø	Matti-Ø	koulu-Ø
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

Parameters of Variation

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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

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'

Synthetic

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.

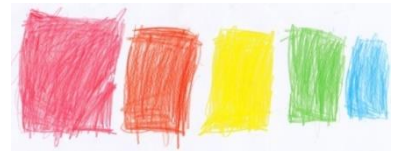
aliiku-sersu-i-llammas-sua-a-nerar-ta-ssa-galuar-paal-li
 entertainment-provide-SEMITRANS-one.good.at-COP-say.that-
 REP-FUT-sure.but-3.PL.SUBJ/3SG.OBJ-but

'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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