

Morphology

- Ling 105-

Spring 2023

Giuseppina Silvestri
(she/her)

Week 9, Class 1

Roadmap for today's class

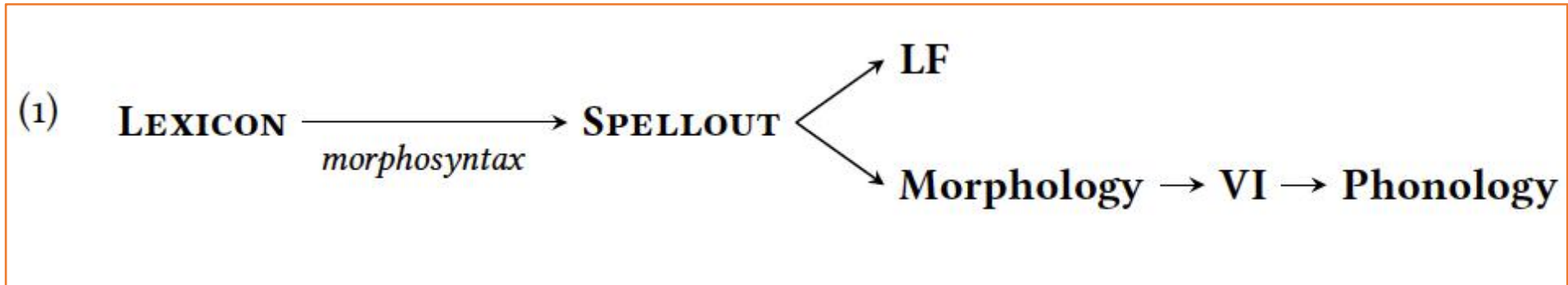
1. Syncretism

2. Distributed Morphology

Announcements

- Instructions for Assignment #3 posted
- Details and sign-up sheet are now posted

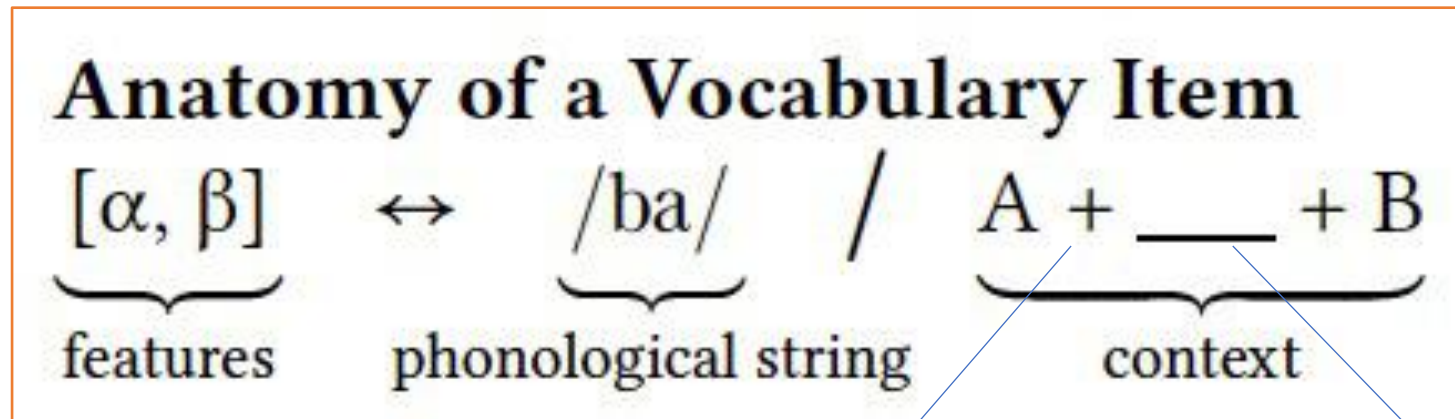
A representation of the structure of grammar



(Halle and Marantz 1993, 1994)

Vocabulary Insertion operation

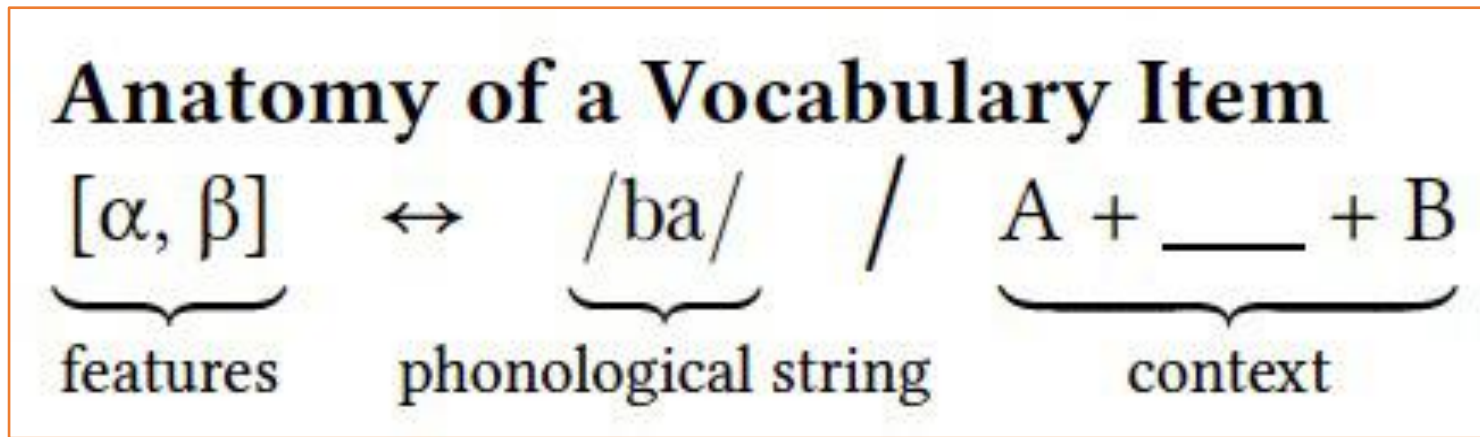
- A language's Vocabulary gives **exponence** to terminal nodes, which are themselves **bundles of morphosyntactic features**



+ signifies an adjacent-head boundary; brackets can also be used.

As in all linguistic rules, the underscore in the context represents the item being acted upon, i.e. the item to the left of the (double) arrow.

Vocabulary Insertion operation



- Readjustment rules
 - Morphological: Rules that apply *before* Vocabulary Insertion, adjusting the syntactic structure and the organization of features
 - Phonological: Rules that apply *after* Vocabulary Insertion, adjusting the phonological string outputted by Vocabulary Insertion (e.g. metaphony/umlaut, phonotactics).

Main morphological phenomena that we have seen

- Allomorphy
- Root suppletion
- Affix suppletion
- Abstract classes (e.g. Spanish, Tamil, German)
- Base modification (e.g. Umlaut in German)
- Phonological readjustments (morphophonology)
- ETC.

Syncretism

Syncretism

- It seems natural to assume that syntax and morphology would mesh rather straightforwardly, but rarely is this the case!

RUSSIAN

- Russian distinguishes subjects and objects in the syntax
- For example, the verb only agrees with the subject, and never with the object
- This is reflected in the inflectional morphology as well, in terms of case

RUSSIAN

- Russian distinguishes subjects and objects in the syntax
- For example, the verb only agrees with the subject, and never with the object
- This is reflected in the inflectional morphology as well, in terms of case

(3) a. **Object → Accusative**

Maša čitaet **knigu**
 Masha reads book.ACC
 'Masha reads a book'

b. **Subject → Nominative**

Na stole ležit **kniga**
 on table lies book.NOM
 'There is a book on the table'

– But now compare:

(4) a. Maša čitaet **pis'mo**
 Masha reads letter.ACC
 'Masha reads a letter'

b. Na stole ležit **pis'mo**
 on table lies letter.NOM
 'There is a letter on the table'

Syncretism

- To describe the pattern seen in Russian, we say that ***pis'mo*** shows syncretism of nominative and accusative case.

* ***Syncretism***

Informally, syncretism is where the morphology 'lets down' the syntax. Formally, syncretism is the failure to make a morphosyntactically relevant distinction:

(5) **Components of syncretism**

- a. a morphological distinction that is syntactically relevant
- b. a failure to make this distinction under particular conditions
- c. a resulting mismatch between syntax and morphology

(6) **SYNCRETISM PRINCIPLE**

Identity of form implies identity of function.

Syncretism Principle

Identity of form implies identity of function.

- “form” means the phonological string and “function” means the underlying linguistic unit that the string represents
- the Syncretism Principle is a guide, not an absolute:
 - for example, we would not want to consider /ɹɛd/ (past tense of *read*) and /ɹɛd/ (the color) to have the same function
 - this is a straightforward case of accidental **homophony**

Syncretism: English

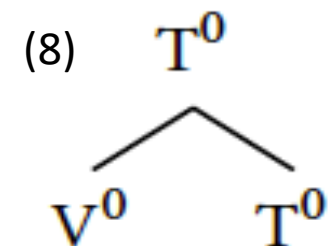
- We can see a handful of instances of syncretism in our work on verb paradigms in English

(7) **English *be***

	SG	PL
1	am	are
2	are	are
3	is	are

- We can analyze these limited instances of syncretism using **underspecification**

- Let's assume a structure like this:



- (9)
- $\sqrt{\text{BE}} \leftrightarrow \text{am} / \text{---} + [1, \text{SG}]$
 - $\sqrt{\text{BE}} \leftrightarrow \text{is} / \text{---} + [3, \text{SG}]$
 - $\sqrt{\text{BE}} \leftrightarrow \text{are}$

Syncretism: English

(7) **English *be***

	SG	PL
1	am	are
2	are	are
3	is	are

- (9)
- a. $\sqrt{\text{BE}} \leftrightarrow \text{am} / \text{---} + [1, \text{SG}]$
 - b. $\sqrt{\text{BE}} \leftrightarrow \text{is} / \text{---} + [3, \text{SG}]$
 - c. $\sqrt{\text{BE}} \leftrightarrow \text{are}$

- The analysis in (9) adheres to the **Syncretism Principle** because the form *are* corresponds to one function
- Syncretism involves the identity of cells within an assumed morphosyntactic paradigm (i.e. a set of related forms)
- There are more complicated syncretic patterns that cannot be analyzed in terms of underspecification alone - we will build up to these.

How much granularity in the analysis of syncretism?

German *sein* at the word level

	SG	PL
1	bin	sind
2	bist	seid
3	ist	sind

It is, of course, possible in principle to decompose words into much finer pieces and see more identical forms and thus instances of syncretism:

German *sein* at the phoneme level

3SG		i	s	t
2SG	b	i	s	t
1SG	b	i	n	
3PL	s	i	n	d [t]
1PL	s	i	n	d [t]
2PL	s	i	n	d [t]
INF	s	i	n	

Types of syncretism

1. Simple syncretism
2. Nested syncretism
3. Contrary syncretism

1. Simple syncretism

Two or more cells with different values for a feature in a paradigm are merged

Central Alaskan Yup'ik (Eskimo–Aleut)

	SG	DUAL	PL	
ABS	nuna	nunak	nunat	'land'
REL	nunam	nunak	nunat	
LOC	nunami	nunagni	nunani	
ABL	nunamek	nunagnek	nunaneke	

2. Nested syncretism

Simple syncretism compounded across different environments

Upper Sorbian (Slavic)

	PL	SG	DUAL	
NOM	žony	žona	žonje	‘wife’
ACC	žony	žonu	žonje	
GEN	žonow	žony	žonow	
DAT	žonam	žonje	žonomaj	
LOC	žonach	žonje	žonomaj	
INS	žonami	žonu	žonomaj	

3. Contrary syncretism

- Multiple patterns of syncretism that are not nested, but the pairings in each paradigm are *mutually exclusive*

Nuer (Nilo-Saharan)

	‘dog’	‘egret’	‘girl’	‘bug’
NOM.SG	jiök	bööŋ	nyal	baan
GEN.SG	jiök	bööŋka	nyal	baankä
LOC.SG	jiöök	bööŋka	nyaal	baan

Polarity effects through syncretism

- In some instances, a form might fill two cells in a paradigm, but these cells *cannot* be easily collapsed.
- These are called polarity effects.

Old Irish (Celtic)

	SG	PL	DUAL	
NOM	fer	fir	fer	'man'
ACC	fer	firu	fer	
GEN	fir	fer	fer	
DAT	fiur	feraib	feraib	

What kinds of paradigms and features can exhibit and trigger syncretism?

- In short, any morphosyntactic feature can be the fertile domain for syncretism, but here are some common ones crosslinguistically:
 - Inflection class
 - Case
 - Person
 - Number
 - Gender
 - Tense-aspect-mood (TAM)
 - Negation

Syncretism: morphological characteristics

A. Regularity

B. Directionality

C. Unmarkedness

A. Regularity

– Regularity refers to the **repetition** of a syncretic pattern across multiple exponents

(i.e. roots and affixes)

– Let's compare the following syncretic patterns in Latin and Kashmiri:

Latin

	2nd declension: 'star'		3rd declension: 'chief'	
	SG	PL	SG	PL
NOM	stella	stellae	princeps	principēs
ACC	stellam	stellās	principem	principēs
GEN	stallae	stellārum	principis	principium
DAT	stallae	stellīs	principī	principibus
ABL	stallā	stellīs	principe	principibus

Kashmiri

	1st declension: 'child'		2nd declension: 'tree'	
	SG	PL	SG	PL
ABS	gobur	gobar	kul	kul'
ERG	gobran	gobrav	kul'	kul'av
ABL	gobri	gobrav	kuli	kul'av
DAT	gobur	gobran	kulis	kul'an

B. Directionality

- Directionality concerns the possible morphological affiliation of the syncretic form to one of its component values.
- Compare the following syncretic patterns in Lak and Udihe:

Lak (Northeast Caucasian) and Udihe (Tungusic)

Lak imperfective ‘stand up’			Udihe ‘sing’	
	PRES	PAST	PAST	FUT
1SG	izan-na	izajssij-av	jexe:-mi	jexezeŋe-i
2SG	izan-ssara	izajssij-av	jexe:-i	jexezeŋe-i
3SG	izan-ssar	izajssij-a	jexe:-ni	jexezeŋe-ni

B. Directionality

Lak (Northeast Caucasian) and Udihe (Tungusic)

Lak imperfective ‘stand up’			Uidhe ‘sing’	
	PRES	PAST	PAST	FUT
1SG	izan-na	izajssij-av	jexe:-mi	jexezeŋe-i
2SG	izan-ssara	izajssij-av	jexe:-i	jexezeŋe-i
3SG	izan-ssar	izajssij-a	jexe:-ni	jexezeŋe-ni

- In Lak, there is a static relationship between the affixes and the morphosyntactic features that they express: **-av** expresses both **1sg** and **2sg**
- In Udihe, the relationship between the affixes and the morphosyntactic features varies. Sometimes **-i** functions solely as **2sg** and other times as both **1sg** and **2sg**
- This is called a **directional effect**: in Udihe, the **1sg future** is based on the form for **2sg**

C. Unmarkedness

Unmarkedness concerns the possible relationship within a paradigm between a morphologically **unmarked** form and syncretism:

Francisco Leon Zoque (Mixe–Zoque)

<i>poyu</i> 'ran'			affixes	
	SG	PL	SG	PL
1	poyu	potyamu	Ø-	Ø- -tam
2	mbyoyu	mbyotyamu	Ny-	Ny- -tam
3	poyu	poyaju	Ø-	Ø- -yaj

Morphology Lab 20

- Compare the following datasets from Old English, Khanty, and Gothic respectively:

Verb 'bindan' ('bind'), Old English

		PRESENT IND	PRESENT SBJV	PAST IND	PAST SBJV
1	SG	<i>binde</i>	<i>binde</i>	<i>band</i>	<i>bunde</i>
2	SG	<i>bintst</i>	<i>binde</i>	<i>bunde</i>	<i>bunde</i>
3	SG	<i>bint</i>	<i>binde</i>	<i>band</i>	<i>bunde</i>
1-3	PL	<i>bindaþ</i>	<i>binden</i>	<i>bundon</i>	<i>bunden</i>

Possessive suffixes in Khanty

	SINGULAR	PLURAL	DUAL
1ST	<i>-ēm</i>	<i>-ēw</i>	<i>-ēmən</i>
2ND	<i>-ēn</i>	<i>-lən</i>	<i>-lən</i>
3RD	<i>-l</i>	<i>-ēl</i>	<i>-lən</i>

Verb 'niman' ('take'), Gothic

	ACTIVE		PASSIVE	
	SINGULAR	PLURAL	SINGULAR	PLURAL
1ST	<i>nima</i>	<i>nimam</i>	<i>nimada</i>	<i>nimanda</i>
2ND	<i>nimis</i>	<i>nimiþ</i>	<i>nimaza</i>	<i>nimanda</i>
3RD	<i>nimiþ</i>	<i>nimand</i>	<i>nimada</i>	<i>nimanda</i>

I will see you on Thursday:
what can we do in the meanwhile?

- review the lecture slides
- do reading from the **textbook**
(Chapter 8, paragraph 6)
- **optional** reading on Distribute Morphology
- work on Assignment #3
- work on your presentation

STAY SAFE & STRONG