



# Unit 3

## The syllable and its environments

some relevant contexts in which the syllable functions.

Print version of the  
*Phonetics with Listening Practice (British)*  
presentation given on  
l'octidi 8 brumaire an CCXXXIII  
Tuesday 29 October 2024

Robert Spence, { English Department | LangSciTech } , Saarland University

3.1

[fə.'nɛt.ɪks wɪð 'lɪs.(ə)n.ɪŋ 'prækt.ɪs 'brɪt.ɪʃ 'jʊ:n.ɪt̩ 'θri:]  
**Phonetics with Listening Practice (British): Unit 3:**

[ðə 'sɪl.əb.(ə)l̩(ə)n(d) \_ɪts \_m.'vaɪ(ə)ɪ.(ə)n.mənts]  
**The syllable and its environments:**

[s(ə)m 'ɪɛl.əv.(ə)nt 'kʰɒn.tɛkst̩s \_ɪn wɪtʃ ðə 'sɪl.əb.(ə)l̩ 'fʌŋ(k).ʃ(ə)nz]  
**some relevant contexts in which the syllable functions.**

[ 'rɒb.ət 'spɛns ]  
Robert Spence

[ 'fɑxvɪçtɔŋ ʔaŋ ɡlɪstɪk ʔɒnt ʔa.merɪka'nɪstɪk | 'fɑxvɪçtɔŋ 'ʃpɹæ:xvɪsɪŋfɑft ʔɒnt 'ʃpɹæ:xtʰɛçnɔ'loʤi: | ʔunɪvɛɪz-  
i'tʰɛ:t des 'zɑɹləndəs ]

Fachrichtung Anglistik und Amerikanistik /  
Fachrichtung Sprachwissenschaft und Sprachtechnologie,  
Universität des Saarlandes

[lɔk.ti.di ʋi bɹy.mɛ:ɪ ã dɔ.sã.tʁãt.tɹwɑ ]  
l'octidi 8 brumaire an CCXXXIII

[ 'tʃjuz.dɛɪ ðə 'twɛnt.i.'naɪnθ \_əv \_ɒk.'tʰəʊ.bə 'twɛnt.i.'twɛnt.i.'fʊ:]  
Tuesday 29 October 2024

3.2



Image: "F. Jullien Genève", maybe Frank-Henri Jullien[-.5ex](1882-1938) -  
Indogermanisches Jahrbuch /[-.5ex]Wikipedia CC BY-SA 4.0

Ferdinand Mongin de SAUSSURE  
26.11.1857--22.2.1913

# 1

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## 2 From matter to meaning: language in the evolutionary order

### From matter to meaning

#### The place of language in the evolutionary order of nature:

- **matter + life** → *function*
  - **life + society** → *value* *Gebrauchswert*  
↓
  - **society + language** → *meaning* *Tauschwert*
- [before there is grammar:]
  - **sounds** 'standing for' meanings → *words*
  - [once there is grammar:]
  - **sounds** 'stand for' words ...
  - ... and **words in structures** 'stand for' meanings
  - thus, adult human language has three '*levels*' or '*strata*':
  - **meanings**
  - ... stood for by **wordings**
  - ... stood for by **sound(ing)s**

3.5

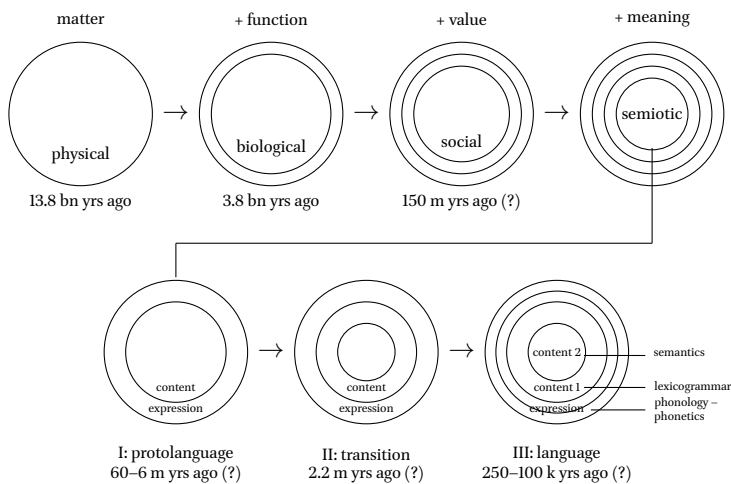


Figure 1: From matter to meaning (after C. M. I. M. Matthiessen)

3.6

### The importance of using a logarithmic time scale:

3.7

## 3 Signs and semiotic systems

### Signs and semiotic systems (1)

3.8

### Signs and semiotic systems (2)

3.9

### Signs and semiotic systems (3)

3.10

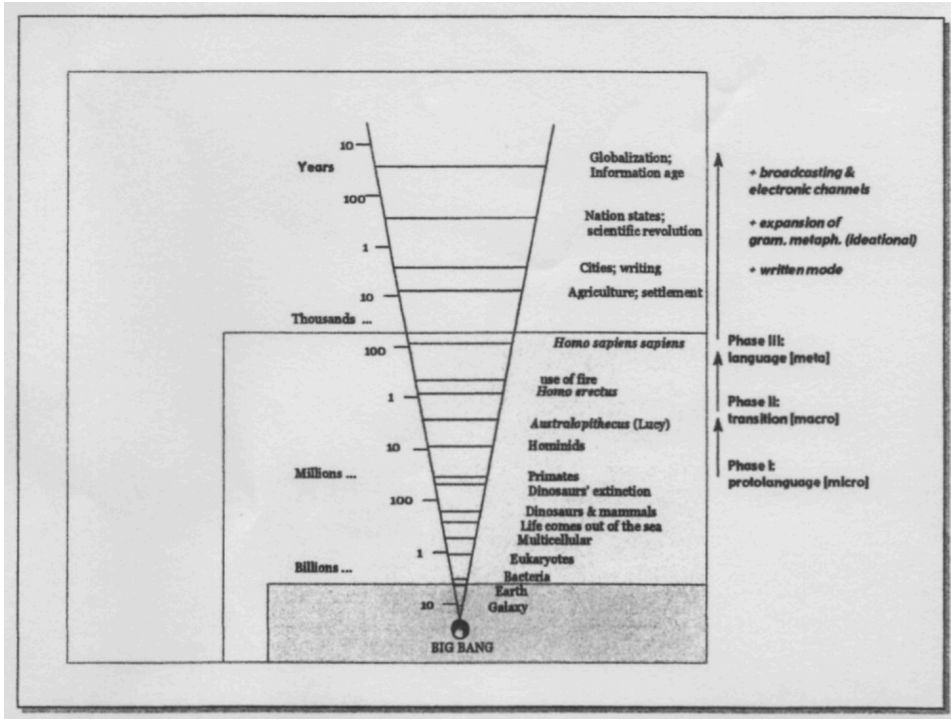


Figure 2: Cosmogenesis (logarithmic scale): acceleration

Source: Delsemme 1998, adapted by C.M.I.M. Matthiessen

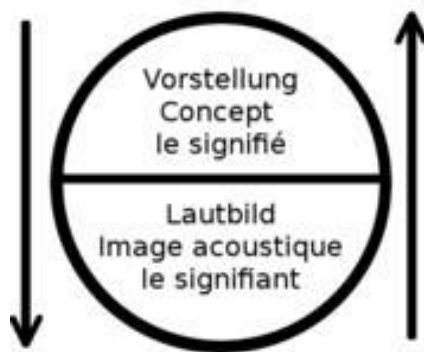


Figure 3: The sign function (Saussure)

Source: Wikipedia

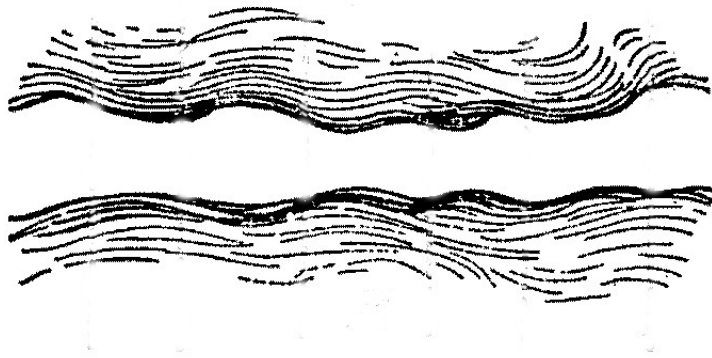


Figure 4: Without language, thought and sound are indefinite and indistinct

Source: adapted from Saussure (1916); Wikipedia

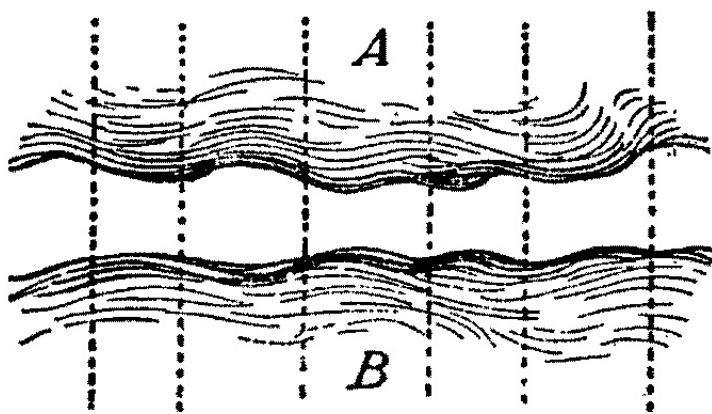
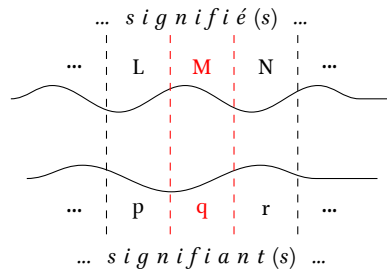


Figure 5: With language: the arbitrariness of the sign and the notion of *valeur*

Source: Saussure (1916); Wikipedia

Signs and semiotic systems (4): *l'arbitraire du signe & valeur*

- language (... L/p, **M/q**, N/r, ...) is a form, not a substance



- that **q** stands for **M** is **ARBITRARY**
- **M** is only defined by its **VALUE relative to** { ... L ... N ... }
- **q** is only defined by its **VALUE relative to** { ... p ... r ... }

For example:

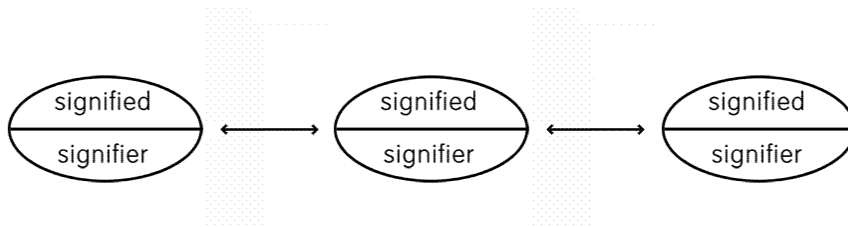
3.11



Klingon has 8 different concepts where English has only 'fight'; and don't confuse the final sound of "qaH" [q<sup>h</sup>αx] ('Sir!') vs "qagh" [q<sup>h</sup>αγ] ('worms')!

A semiotic system = a system of signs

- Each sign can only be defined by its place in the *system* of signs.



Source: Wikipedia

- Language is a system of signs.
- Read: **Ferdinand de Saussure: *Cours de linguistique générale*. 1916. Available online.**
- These five paragraphs from Saussure (1916) are ... .. **the most important thing I will ever be able to teach you about language:**

3.12

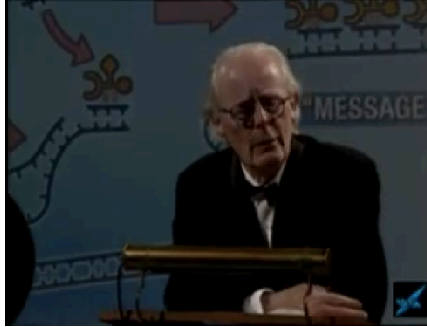


Figure 6: [John Maynard Smith](#) ← click for link to video extract

The full video on the origin of life is available in six parts here:

<https://www.youtube.com/watch?v=viP5kBMtZ18>

[https://www.youtube.com/watch?v=EzP3m\\_XlwV8](https://www.youtube.com/watch?v=EzP3m_XlwV8)

<https://www.youtube.com/watch?v=fRzRbohQ5Zs>

<https://www.youtube.com/watch?v=Il-yoFGogyA>

<https://www.youtube.com/watch?v=dmrje1cd90o>

<https://www.youtube.com/watch?v=tzGDio2ARpw>

3.13

## 4 Dimensions in the Systemic Functional theory of language

### Dimensions in the Systemic Functional theory of language

The theory of language adopted in this course is **Systemic Functional Linguistics (SFL)**. The theory provides a number of dimensions for describing language, the most important of which are described here:

1. **MANIFESTATION** (how language appears ['manifests itself'] in the world)
2. **STRATIFICATION** (levels of 'something standing for something else' a.k.a. 'something **REALISING** something else' a.k.a. 'something being constrained by something else')
3. **METAFUNCTION** (different **FUNCTIONAL COMPONENTS** of meaning, determining different kinds of structures)
4. **INSTANTIATION** (of the potential by the actual)
5. **RANK** (bigger units made up of smaller ones)
6. **AXIS** (choice vs. chain)
7. **DELICACY** ('broad' vs. 'narrow' descriptions)

3.14

### 4.1 MANIFESTATION

#### Three possible MANIFESTATIONS of language

At the point where language interfaces with physical reality, there are three possible ways in which it can 'manifest itself':

- **sound** (pronunciation) ... from the very beginning
- **writing** (orthography) ... since about 3000 B.C.
- **"signing"** (*Gebärdensprache*) ... for the hearing-impaired

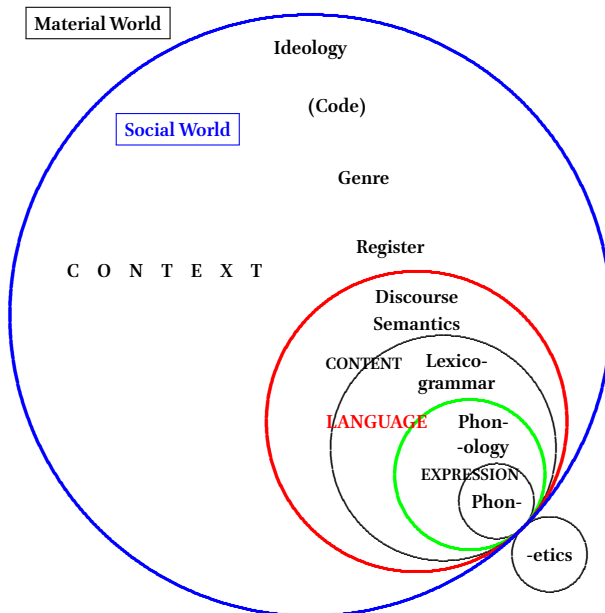
3.15

## 4.2 STRATIFICATION

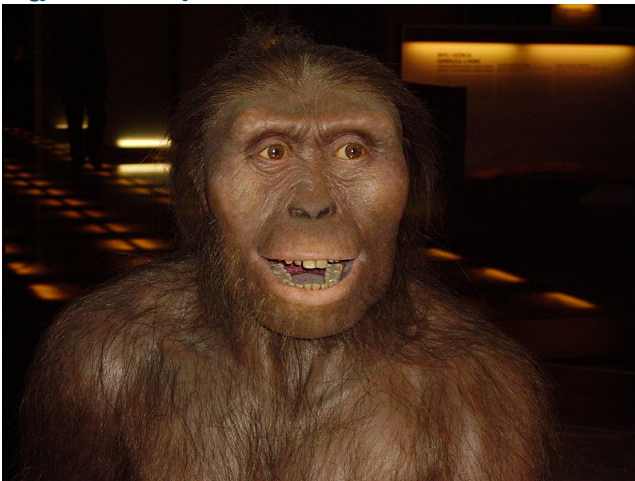
Higher STRATA *constraining* lower STRATA

- **Language**: *the noises we make with our faces in order to live*
- (Material reality: Bipedal apes **living**)
- **Ideology** (what is thinkable? what is doable?)
- **(Code)** (who's an insider? e.g. two insiders: „Unn?“ — „Jo.“)
- **Genre** (what kind of text for what social purpose?)
- **Register** (what's going on? who's taking part? what role is language playing?)
- **Discourse Semantics** (what do the words and structures mean... in context?)
- **Lexicogrammar** (what do the words and sentences mean... regardless of context?)
- **Phonology** (are those the kinds of sound patterns you find in English words and sentences?)
- **Phonetics** (are those human sounds? AND: are those the kinds of sounds you'd hear in English?)
- (Material reality: Bipedal apes making **noises** with their **faces**)

3.16



Ideology is historically conditioned



Source: Wikipedia / Licence: CC by SA 2.0

It's 3.2 million years ago. You're an *Australopithecus afarensis*. What is thinkable? What is doable?

3.17



### 4.3 METAFUNCTION


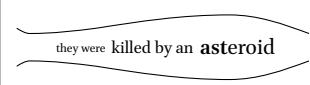
#### FUNCTIONAL COMPONENTS of language and structural types (1)

**METAFUNCTIONS:** Functional components of language — internal reflections, within the architecture of language as a system, of the general functions language serves in society

Function of language		Examples	Structural type
ideational	logical	—Chris said ... that Jane thought ... that Tom had claimed ... that Peter likes Mozart	linear ("string"-like)
	experiential	—the dinosaurs died —an asteroid killed the dinosaurs —Peter likes Mozart —Sally's the cleverest girl in the class	nuclear ("particle"-like)
interpersonal		—he likes Mozart —he's, like, sooo totally into Mozart —I suspect he's possibly rather fond of Mozart, wouldn't you say?	prosodic ("field"-like)
textual		—an asteroid killed the dinosaurs —they were killed by an asteroid —they were killed by one —it was an asteroid that killed them	culminative ("wave"-like)

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#### FUNCTIONAL COMPONENTS of language and structural types (2)

Function of language		Examples	Structural type
→ (natural logic)  reflecting upon the world	modification, quotes/reports, subordination, coordination, apposition, ...	Chris said ... that Jane thought ... that Tom had claimed ... that Peter likes Mozart	linear ("string"-like)
(experience) →	processes, participants, circumstances ...		nuclear ("particle"-like)
acting upon the world by interacting with the other people in it: mood, modality, negation, attitude, ...		???????????????????? ???????????????????? suspect...possibly...rather...wouldn't ???????????????????? ????????????????????	prosodic ("field"-like)
creating relevance: theme-rheme structure, information structure, ...			culminative ("wave"-like)

3.19

**FUNCTIONS OF LANGUAGE associated with *pitch* (dt. *Tonhöhe*) changes**

in English: **intonation** (see Units 13–15)

logical	yes	e.g. ways of joining clauses together
experiential	no	
interpersonal	yes	e.g. what you feel and want
textual	yes	e.g. what is 'given' and what is 'new'?

in Chinese: **lexical tone**

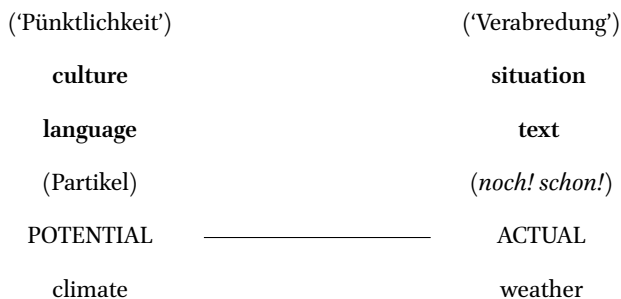
experiential	yes	e.g. distinguishing between different concepts 媽 mā 'Mutter' 麻 má 'Hanf' 馬 mǎ 'Pferd' 罵 mà 'fluchen'
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3.20

**4.4 INSTANTIATION**

**INSTANTIATION: from potential (=system) to actual (=instance) (1)**

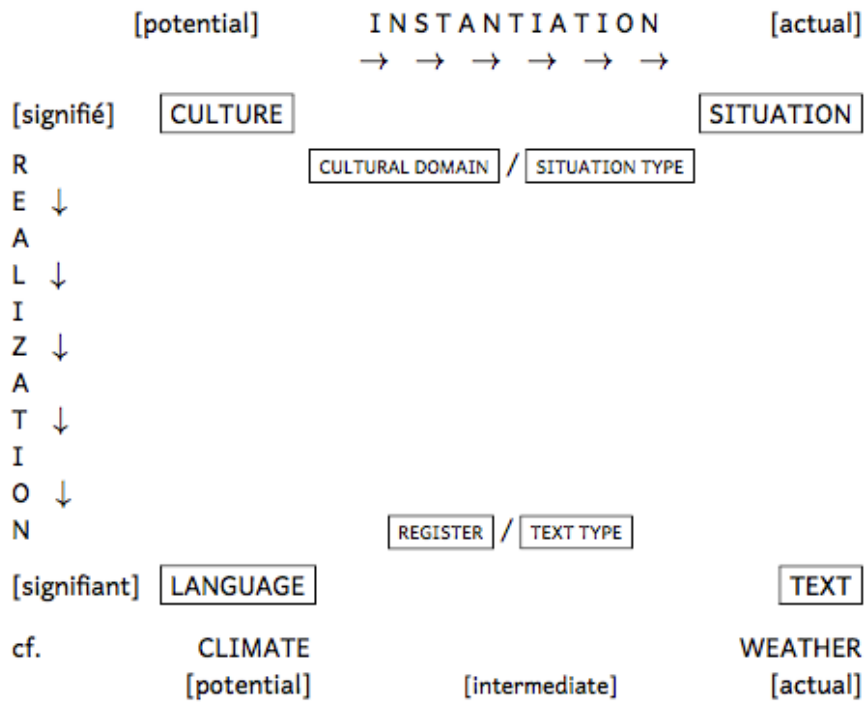
- German culture is the potential for German situations.
- This situation is an actual instance of German culture.
- The German language is the potential for German text(s).
- This text is an actual instance of the German language.



- The climate is the potential for weather.
- Today's weather is an actual instance of the climate.

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INSTANTIATION: from potential (=system) to actual (=instance) (2)



3.22

#### 4.5 RANK

RANK: bigger units made up of smaller ones (1)

The rank scale in grammar:

clause	an asteroid killed the dinosaurs						
group	an asteroid		killed		the dinosaurs		
word	an	asteroid	killed		the	dinosaurs	
morpheme	an	asteroid	kill	ed	the	dinosaur	s

3.23

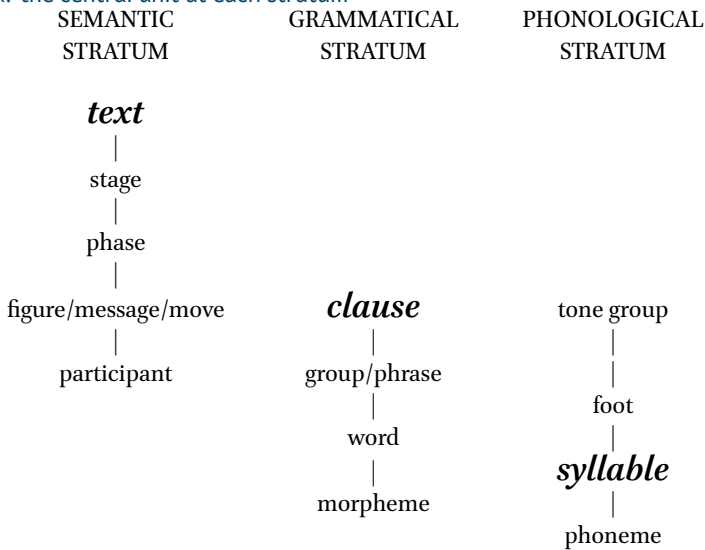
RANK: bigger units made up of smaller ones

The rank scale in phonology:

tone group	ə n <sup>^</sup> æ s t ə r ɔɪ d <b>k ɪ l d</b> ð ə <b>d aɪ n</b> ə s ɔ: z								
foot	<sup>^</sup> ə n	<b>æ s t</b> ə r ɔɪ d			<b>k ɪ l d</b> ð ə		<b>d aɪ n</b> ə s ɔ: z		
syllable	ə n	æ s t	ə	r ɔɪ d	k ɪ l d	ð ə	d aɪ n	ə	s ɔ: z
phoneme	ə n	æ s t	ə	r ɔɪ d	k ɪ l d	ð ə	d aɪ n	ə	s ɔ: z

3.24

RANK: the central unit at each stratum



3.25

RANK: a structure is a configuration of functional roles

A unit is "made up of" smaller units... but how?

syllable	sɔ:z	(bigger unit)			
(STRUCTURE)	<table border="1" style="border-collapse: collapse; width: 100%; text-align: center;"> <tr> <td style="padding: 2px 5px;">Initial</td> <td style="padding: 2px 5px;">Nucleus</td> <td style="padding: 2px 5px;">Final</td> </tr> </table>	Initial	Nucleus	Final	← functional roles
Initial	Nucleus	Final			
phonemes	<table border="1" style="border-collapse: collapse; width: 100%; text-align: center;"> <tr> <td style="padding: 2px 5px;">s</td> <td style="padding: 2px 5px;">ɔ:</td> <td style="padding: 2px 5px;">z</td> </tr> </table>	s	ɔ:	z	(smaller units)
s	ɔ:	z			

or:

syllable	sɔ:z	(bigger unit)						
(STRUCTURE)	<table border="1" style="border-collapse: collapse; width: 100%; text-align: center;"> <tr> <td style="padding: 2px 5px;">Onset</td> <td colspan="2" style="padding: 2px 5px;">Rhyme</td> </tr> <tr> <td style="padding: 2px 5px;"></td> <td style="padding: 2px 5px;">Nucleus</td> <td style="padding: 2px 5px;">Coda</td> </tr> </table>	Onset	Rhyme			Nucleus	Coda	← functional roles
Onset	Rhyme							
	Nucleus	Coda						
phonemes	<table border="1" style="border-collapse: collapse; width: 100%; text-align: center;"> <tr> <td style="padding: 2px 5px;">s</td> <td style="padding: 2px 5px;">ɔ:</td> <td style="padding: 2px 5px;">z</td> </tr> </table>	s	ɔ:	z	(smaller units)			
s	ɔ:	z						

3.26

## 4.6 AXIS

AXIS: CHOICE (paradigmatic) vs. CHAIN (syntagmatic)

must

and you should learn it

may

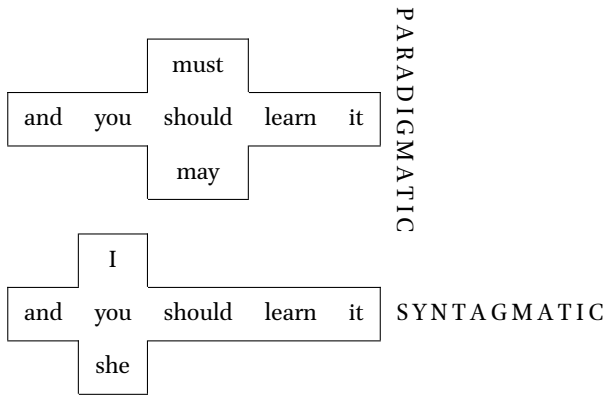
I

and you should learn it

she

3.27

AXIS: CHOICE (paradigmatic) vs. CHAIN (syntagmatic)



3.28

AXIS: there is CHOICE and CHAIN in phonology, too

.	.	
	f	
	θ	
.	s	
.	ʃ	
f	v	
θ	ð	
s	ɔ:	z
ʃ	ʒ	
v		
ð	m	
z	n	
	ŋ	
h		
m	l	
n		
w		
l		

The syllable /sɔ:z/ exists in English, as do  
 /fɔ:θ fɔ:s fɔ:m fɔ:n fɔ:l θɔ:z θɔ:n sɔ:s sɔ:m sɔ:l ʃɔ:z ʃɔ:n ʃɔ:l vɔ:m hɔ:s hɔ:z  
 hɔ:n hɔ:l mɔ:f mɔ:s mɔ:z mɔ:n mɔ:l nɔ:θ nɔ:s nɔ:z nɔ:m wɔ:f wɔ:z wɔ:m  
 wɔ:n wɔ:l lɔ:z lɔ:n .../

3.29

#### 4.7 DELICACY

DELICACY: 'broad' vs. 'narrow' transcriptions

A 'broad' (less delicate) transcription, making only the minimum necessary number of distinctions:

[ ɪeɪ ]

A 'narrow' (more delicate) transcription, making as many distinctions as possible:

[ ɪ<sup>w</sup>ɛɪ̄ ]

3.30

## 5 Homework for Week 4

### Homework for Week 4

- The homework to be completed before week 4 is:  
Learn the adjectives corresponding to the Places of Articulation for consonants:  
[https://commons.wikimedia.org/wiki/File:Places\\_of\\_articulation.svg](https://commons.wikimedia.org/wiki/File:Places_of_articulation.svg)

3.31

## 6 Envoi

### Envoi (1)

How can you tell that this is French just by listening to it?

Un petit d'un petit /  
S'étonne aux Halles /  
Un petit d'un petit /  
À degrés te fallent /  
Indolent qui ne sort cesse /  
Indolent qui ne se mène /  
Qu'importe un petit /  
Tout gai de Reguennes?

from the mediaeval manuscript "Mots d'heures: gousses, rames".

3.32

### Envoi (2)

Now compare this strangely similar English poem. How can you tell it is English, just by listening to it?  
(What about the rhythm?)

Humpty Dumpty /  
sat on a wall /  
Humpty Dumpty /  
had a great fall /  
And all the King's horses /  
and all the King's men /  
Couldn't put Humpty /  
together again.

source: the traditional collection "Mother Goose Rhymes"

3.33