φων

Unit 3

The syllable and its environments

some relevant contexts in which the syllable functions.

Print version of the
Practical English Phonetics (British) /
Phonetics with Listening Practice (British)
presentation given on
le septidi 7 brumaire an CCXXXIV
Tuesday 28 October 2025

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

3.1

[fə.ˈnet̞.ɪks wɪð ˈlɪs.(ə)n.ɪŋ ˈpɹ̥ækt.ɪs ˈbɹɪt.ɪʃ ˈjʉːn.ɪt̚ ˈθɾiː]
Phonetics with Listening Practice (British): Unit 3:

[ðə ˈsɪl.əb.(ə)ɫ‿(ə)n(d)‿ɪts‿ɪn.ˈva̠ɪ̯(ə)ɹ.(ə)n.mənts]
The syllable and its environments:

[s(ə)m ˈɹe̞l.əv.(ə)nt ˈkʰɒn.te̞ksts‿ɪn wɪtʃ ðə ˈsɪl.əb.(ə)ɫ ˈfʌ̟ŋ(k).ʃ(ə)nz]
some relevant contexts in which the syllable functions.

[ˈɹɒb.ət ˈspe̞ns]
Robert Spence

[ˈfaxʁɪçtʊŋ ʔaŋˈglɪstɪk ʔʊnt ʔaˌmeʁikaˈnɪstɪk | ˈfaxʁɪçtʊŋ ˈʃpʁaːxvɪsn̩ʃaft ʔʊnt ˈʃpʁaːxtʰɛçno·lo·giː | ˌʔunivɛʁ̞z-iˈtʰɛːt dɛs ˈzaʁ̞landəs]

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

[lə sɛp.ti.di sɛt bʁy.mɛːʁ ɑ̃ dø.sɑ̃.tʁɑ̃t.katʁ]
le septidi sept brumaire an CCXXXIV

[ˈtjʉːz.de̞ɪ̯ ðə ˈtw̥e̞nt.i.ˈe̞ɪ̯t̪θ‿əv‿ɒk.ˈtʰəʊ̯b.ə ˈtw̥e̞nt.i.ˈtw̥e̞nt.i.ˈfa̠ɪ̯v]
Tuesday 28 October 2025 3.2

Dedication

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

3.3

Diachronic and synchronic perspectives

- **Diachronic** (but *not systemic*):
  - Before Saussure, linguistics was mostly historical linguistics – studying the history of (*parts* of) languages, such as words, or sounds, **across time**.
- **Synchronic** (and *systemic*):
  - Saussure proposed that a language should be studied as a *single, whole system*, at **one point in time**.
  - This change of perspective made Saussure the father of modern linguistics.
- How to **fuse** both perspectives?
  - "The biggest mistake people make is: not to work historically!"
    — Ruqaiya Hasan
  - "Every text — that is, everything that is said or written — unfolds in some context of use; furthermore, it is the uses of language that, over tens of thousands of generations, have shaped the system. Language has evolved to satisfy human needs; and the way it is organised is functional with respect to these needs."
    — Michael Halliday (IFG2: xiii)

3.4

1

Overview of Unit 3

Contents

3.5

2 From matter to meaning: language in the evolutionary order

Evolution vs. development: a terminological reminder

Evolution is "Descent with modification".
Languages, computers and fashions evolve.
Solar systems, mountains and embryos don't.
They develop

Chaucerian English EVOLVED into modern English.
Language DEVELOPS afresh in each child.

In EVOLUTION there is a succession of entities,
each slightly different from its predecessor.
In DEVELOPMENT, one entity changes over time.

– Richard Dawkins
Twitter
9.11.2015

3.6

From matter to meaning

The place of language in the evolutionary order of nature:

- **matter** + **life** → *function*
- **life** + **society** → *value* $\overset{\textit{Gebrauchswert}}{\underset{\textit{Tauschwert}}{\downarrow}}$
- **society** + **language** → *meaning*

  - [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**

3.7

3.8

The importance of using a logarithmic time scale:

3.9

3 Signs and semiotic systems

Signs and semiotic systems (1)

3.10

Signs and semiotic systems (2)

3.11

Signs and semiotic systems (3)

3.12

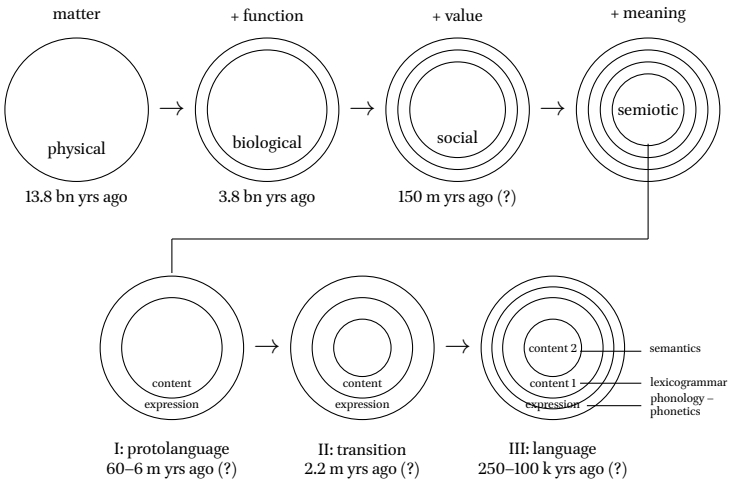


Figure 1: From matter to meaning (after C. M. I. M. Matthiessen)

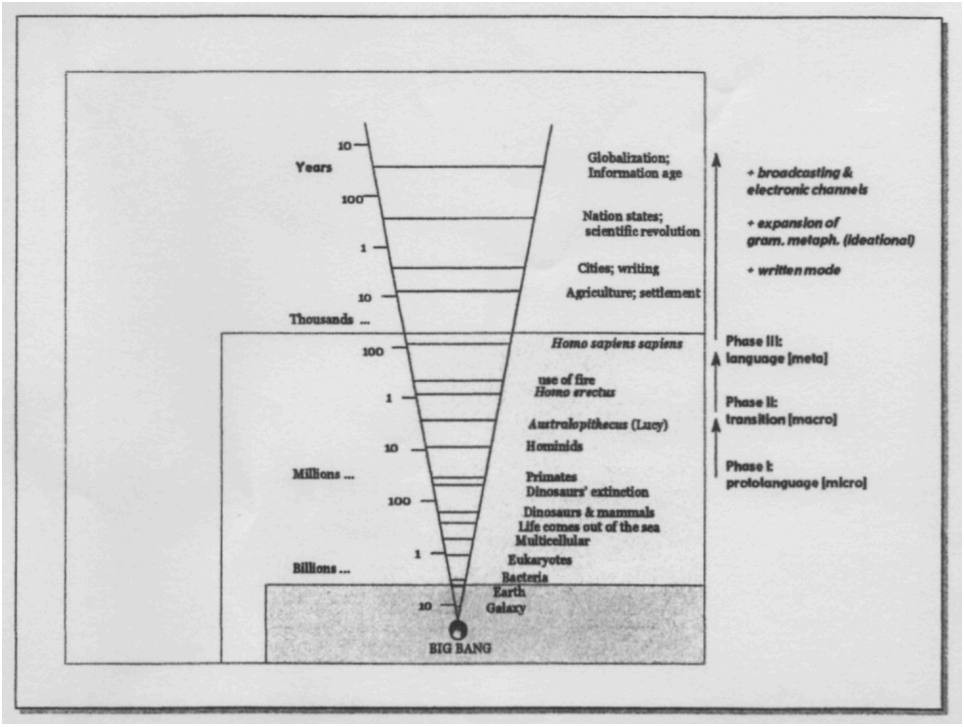


Figure 2: Cosmogenesis (logarithmic scale): acceleration

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

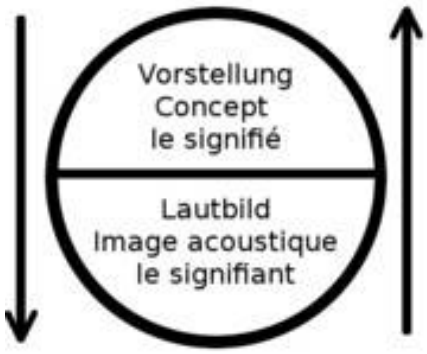


Figure 3: The sign function (Saussure)

Source: Wikipedia

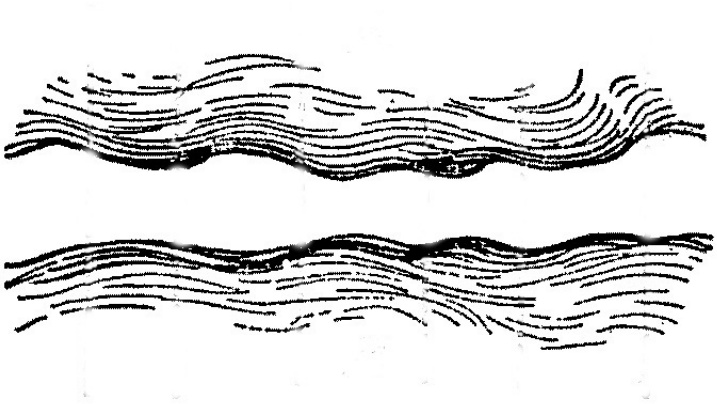


Figure 4: Without language, thought and sound are indefinite and indistinct

Source: adapted from Saussure (1916); Wikipedia

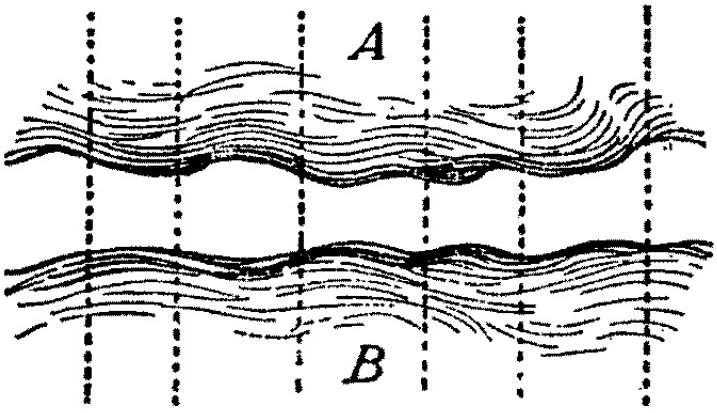
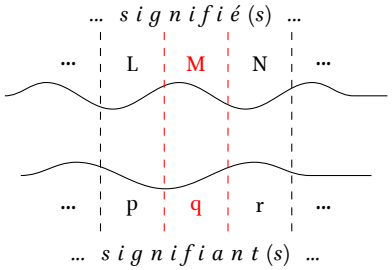


Figure 5: With language: the arbitrariness of the sign and the notion of *valeur*

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 ... }

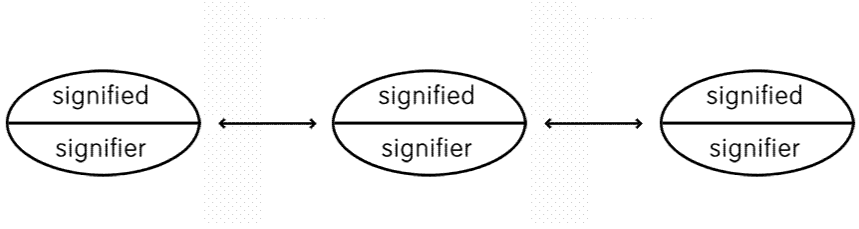
3.13

For example:

Klingon has 8 different concepts where English has only 'fight'; and don't confuse the final sound of "qaH" [qʰɑx] ('Sir!') vs "qagh" [qʰɑɣ] ('worms') ! — semantic space and phonetic space are partitioned differently from the way they are in English

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:

3.14

Priming vocabulary for the following video

Richard Dawkins's teacher, John Maynard Smith, introduced GAME THEORY into evolutionary biology.

Here, as part of a lecture on the evolution of life seen from the point of view of information theory, he describes the difference between animal language and human language.

Key vocabulary items that unexpectedly occur in the video clip:

vervet monkey

leopard — eagle — snake — another troop of monkeys

lion — dog — sleeping — running

3.15

From a bistratal to a tristratal semiotic system

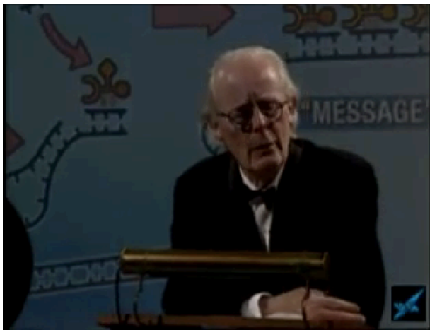


Figure 6: John Maynard Smith ← click for link to video extract

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=fRzRbohQ5Zs
https://www.youtube.com/watch?v=Il-yoFGogyA
https://www.youtube.com/watch?v=dmrje1cd90o
https://www.youtube.com/watch?v=tzGDio2ARPw

3.16

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. **RANK** (bigger units made up of smaller ones)
4. **METAFUNCTION** (different **FUNCTIONAL COMPONENTS** of meaning, determining different kinds of structures)
5. **INSTANTIATION** (of the potential by the actual)
6. **INDIVIDUATION** (the individual user's selection of their own 'repetoire' from the collective 'reservoir' of resources for meaning-making)
7. **AXIS** (choice vs. chain)
8. **DELICACY** ('broad' vs. 'narrow' descriptions)

3.17

4.1 Manifestation

1) 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

Genuine question: Would you be prepared to change your handwriting in order to "fit in" better in an English-speaking country?

What about the way you write J, Z, z, 1, 7, 9 ?

I have to change the way I write these every time I enter Australia or enter Germany.

Changing the way your hand moves when you write is like changing the way your tongue moves when you speak.

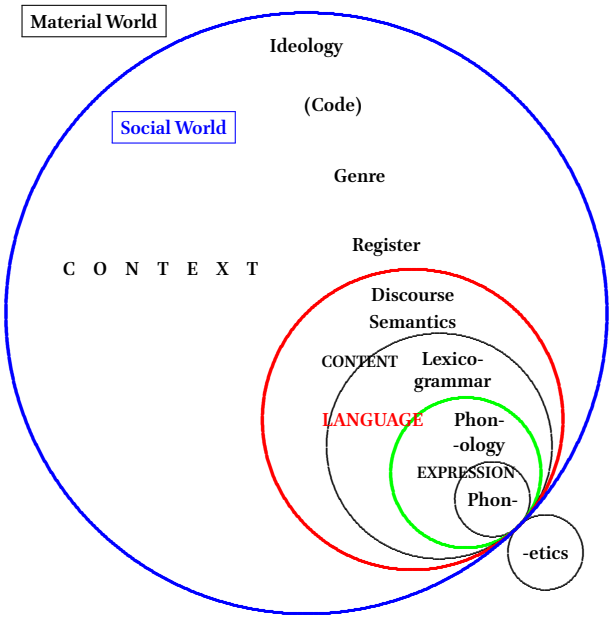
Are you aware of what makes you seem German?
(Remember: You're a spy! A German accent will give you away!) 3.18

4.2 Stratification

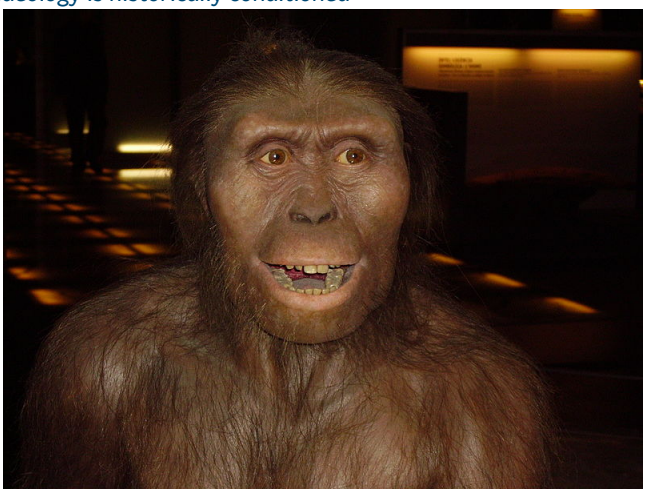
2) Higher strata *constraining* lower strata

- ***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**)

3.19



2) 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? 3.20

4.3 Rank

3) 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	

3.21

3) Rank: bigger units made up of smaller ones (2)

The rank scale in phonology:

tone group	ən **æst** ə rɔɪd **kɪld** ðə **daɪn** ə sɔːz								
foot	ən	**æst** ə rɔɪd			**kɪld** ðə		**daɪn** ə sɔːz		
syllable	ən	æst	ə	rɔɪd	kɪld	ðə	daɪn	ə	sɔːz
phoneme	ə n	æ s t	ə	r ɔɪ d	k ɪ l d	ð ə	d aɪ n	ə	s ɔː z

3.22

3) Rank: the central unit at each stratum

SEMANTIC STRATUM	GRAMMATICAL STRATUM	PHONOLOGICAL STRATUM	*treated in Unit:*
text			
stage			
phase			
figure/message/move	***clause***	tone group	*13, 14, 15*
participant	group/phrase		
	word	foot	*11, 12*
	morpheme	***syllable***	*6, 7*
		phoneme	*6, 7*

… ***syllables*** in English are either strong or weak.
… ***syllables*** in English make up feet, and are made up of phonemes.
… ***syllables*** in English realise morphemes, or words, or 'Mood Blocks'
— "I'll", "you're", "she's", "he'd" …

3.23

3) Rank: a structure is a configuration of functional roles

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

syllable	strɛŋθs sɔ:z			(bigger unit)
(STRUCTURE)	Initial	Nucleus	Final	← functional roles
phonemes	s s t r	ɔ: e	z ŋ θ s	(smaller units)
treated in Unit:	*7*	*6*	*7*	

or:

syllable	strɛŋθs sɔ:z			(bigger unit)
(STRUCTURE)	Onset	Rhyme		← functional roles
		Nucleus	Coda	
phonemes	s s t r	ɔ: e	z ŋ θ s	(smaller units)

3.24

4.4 Metafunction

4) 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)

3.25

4) Functional components of language and structural types (2)

Function of language		Examples	Structural type
⟶ (natural logic) reflecting upon the world (experience) ⟶	modification, quotes/reports, subordination, coordination, apposition, ...	Chris said ... that Jane thought ... that Tom had claimed ... that Peter likes Mozart	linear (“string”-like)
	processes, participants, circumstances ...	Pete like Moz	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, ...		they were killed by an asteroid	culminative (“wave”-like)

3.26

4) 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' 蔴 má 'Hanf' 馬 mǎ 'Pferd' 罵 mà 'fluchen'

3.27

4.5 Instantiation

5) Instantiation: from potential (=system) to actual (=instance) (1)

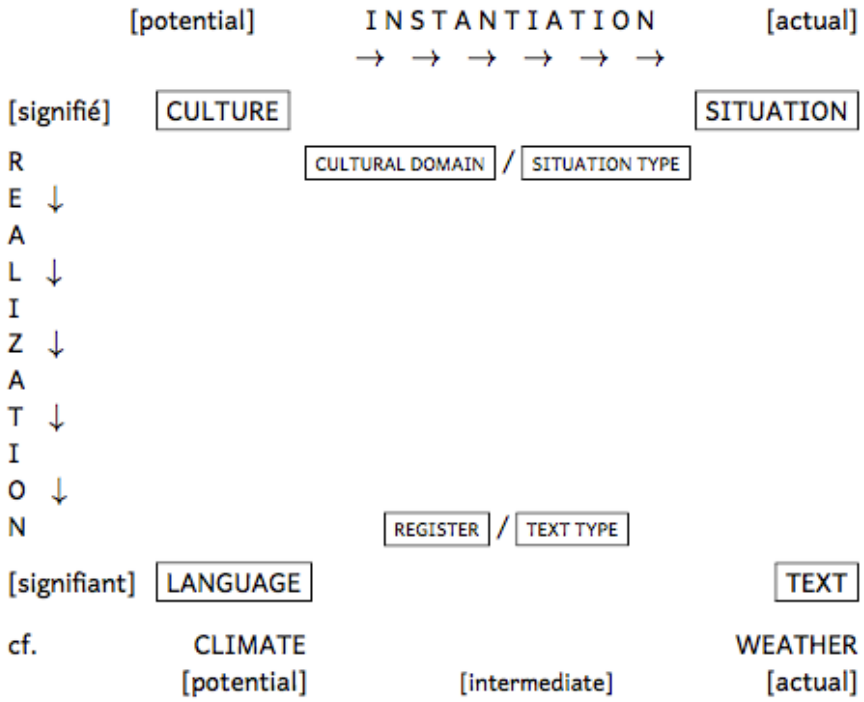
- German culture is the potential for German situations.
- This situation is an actual instance of German culture.
- The German language is the potential for German text(s).
- This text is an actual instance of the German language.

('Pünktlichkeit')		('Verabredung')
culture		**situation**
language		**text**
(Partikel)		(*noch! schon!*)
POTENTIAL	———————	ACTUAL
climate		weather

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

3.28

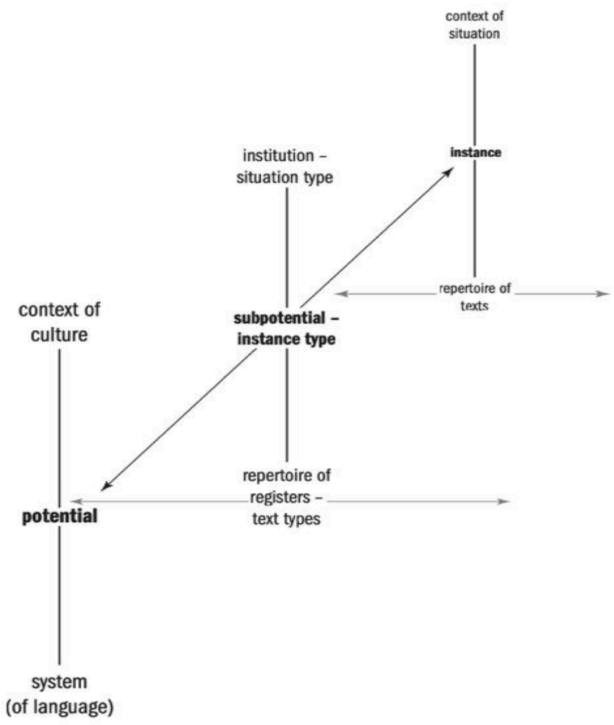
5) INSTANTIATION: from potential (=system) to actual (=instance) (2)



3.29

4.6 INDIVIDUATION

6) INDIVIDUATION: RESERVOIR (collective potential of 'language ~emphuse') vs. REPETOIRE (individual potential of the 'language *user*'))

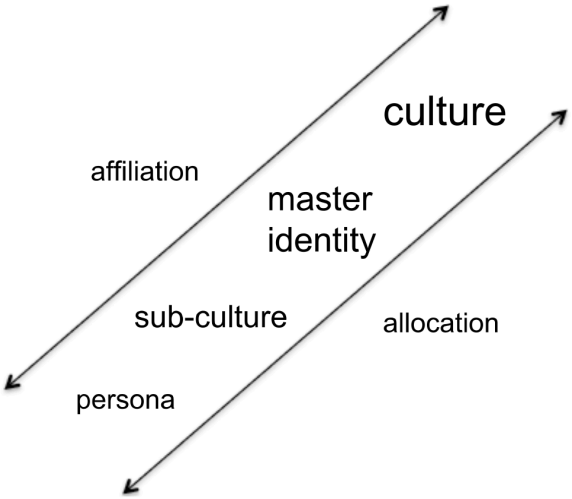


Halliday & Matthiessen 2014: 28; cited in Yu 2023:3280 / fair use

The Cline of Instantiation, also showing Individuation

3.30

6) Individuation: reservoir (collective potential of 'language *use*') vs. repetoire (individual potential of the 'language *user*')



Martin et al., 2013, p. 490; cited in Yu 2023:3281 / fair use

The Cline of Individuation

3.31

4.7 Axis

7) Axis: choice (paradigmatic) vs. chain (syntagmatic)

must

and you should learn it

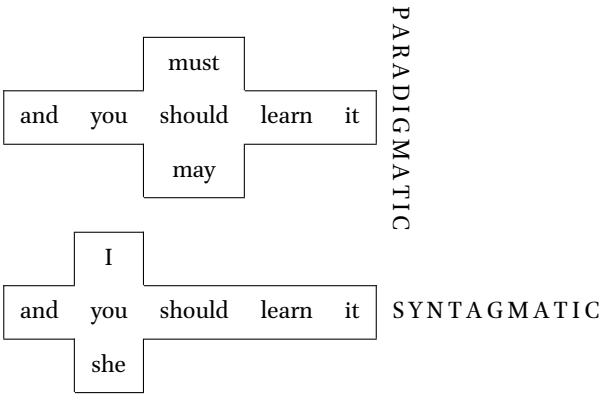
may

I

and you should learn it 3.32

she

7) Axis: choice (paradigmatic) vs. chain (syntagmatic)



3.33

7) Axis: there is choice and chain in phonology, too

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

The syllable /sɔːz/ exists in English, as do
/fɔːθ fɔːs fɔːm fɔːn fɔːl θɔːz θɔːn sɔːs sɔːn sɔːl ʃɔːz ʃɔːn ʃɔːl vɔːn hɔːs hɔːz hɔːn hɔːl mɔːf mɔːs mɔːz mɔːn mɔːl nɔːθ nɔːs nɔːz nɔːm wɔːf wɔːz wɔːm wɔːn wɔːl lɔːz lɔːn .../

3.34

7) Syntagmatic boundaries — knocking edges of building blocks

When units (phonemes, syllables, ...) are put together, their edges rub against each other:

phonology:	k	ɪ	l	d		ð	ə	***Units 6, 7***
phonetics:	kʰ	ɪ	ɬ	d		ð	ə	***Units 8, 9***
	k̟ʰ	ɪ	ʷ	d̪		ð	ə	***Unit 10***

Or should we abandon "building blocks" (units) altogether, and just have "overlapping waves" in our theory?

3.35

4.8 Delicacy

8) Delicacy: 'broad' vs. 'narrow' transcriptions

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

[ɹed]

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

[ɹ̠ʷe̟d̠̃]

3.36

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`

3.37

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". 3.38

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" 3.39