



Syllable vs. Word and Centre vs. Periphery in the Diachrony of Romance Syllable Typology

Matthias Heinz (Tübingen)
matthias.heinz@uni-tuebingen.de

***Phonological Typology of Syllable and Word Languages
in Theory and Practice***

Freiburg i. Br.

FRIAS March 29th-31st 2010

Tuesday March 30th 2010

1. Syllabic reduction: a general tendency in Latin and Romance
2. Persistence of complex syllable shells in Romance languages
3. *A centre vs. periphery* view on syllable type complexity in Romance languages
 - 3.1 *Centre vs. periphery* in language systems/subsystems
 - 3.2 Syllabic complexity in the periphery
 - 3.3 Complexity induced by central systematic tendencies
 - 3.4 *Lento vs. allegro* realizations
4. Conclusion: syllabic complexity as a typological variable

Syllable vs. word languages

- Focussing the 'syllable pole' of the continuum: many Romance languages are seen as prototypically
 - displaying simple syllable types (CV)
 - having well-defined (i.e. constant, speech-rate independent) syllable boundaries
 - obeying sonority hierarchy
 - resyllabifying across word boundaries

1. Syllabic reduction: a general tendency in Latin and Romance

(1)

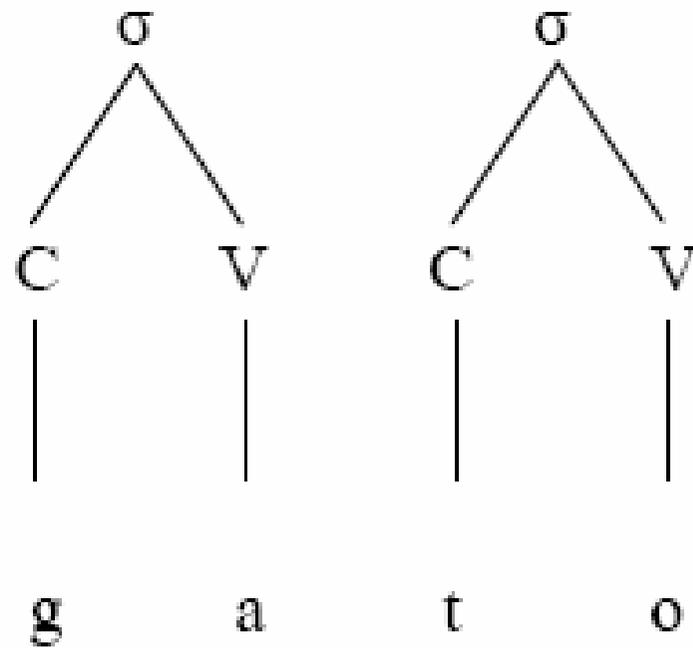
- There are languages lacking syllables with initial vowels and/or syllables with final consonants, but there are no languages devoid of syllables with initial consonants or of syllables with final vowels. (Jakobson 1962, 526)

(2) Core syllable types (Clements/Keyser 1983)

- a. CV
- b. V
- c. CVC
- d. VC

CV phonology: timing slots, tiers

(31) *sp. gato*



Latin: syllabic typology **(Kiss 1971, Väänänen 1981, Lehmann 2005)**

As for the **nucleus**, there is a **diachronic drift from Proto-Indo-European up to Proto-Romance to reduce it** or to assign relevant material to the coda [...].

The **coda is relatively complex**, with a postcoda on top. The **diachronic tendency is towards simplification**.

Onset complexity is relatively low, but pre-initials are allowed at the lexical level. There is a **diachronic shift that reduces this complexity further towards Proto-Romance**.

Lehmann (2005, 17; emphasis added)

Latin: syllabic typology

- (3) As regards diachrony, Latin represents a stage in a movement that starts in Proto-Italic and ends in Proto-Romance (or, in some respects and some language, even later) and that leads to a **simplification of syllable structure** in all of its constituents.

(Lehmann 2005, 17s.)

CV type in Late Latin: 53% (cf. Kiss 1971, 103)

(4) $C_i C_j > C_j C_j > C_j$
■ **Lat.** **Mod. Sp.**
■ ipse > isse > ese
■

(Bybee 2001, 208)

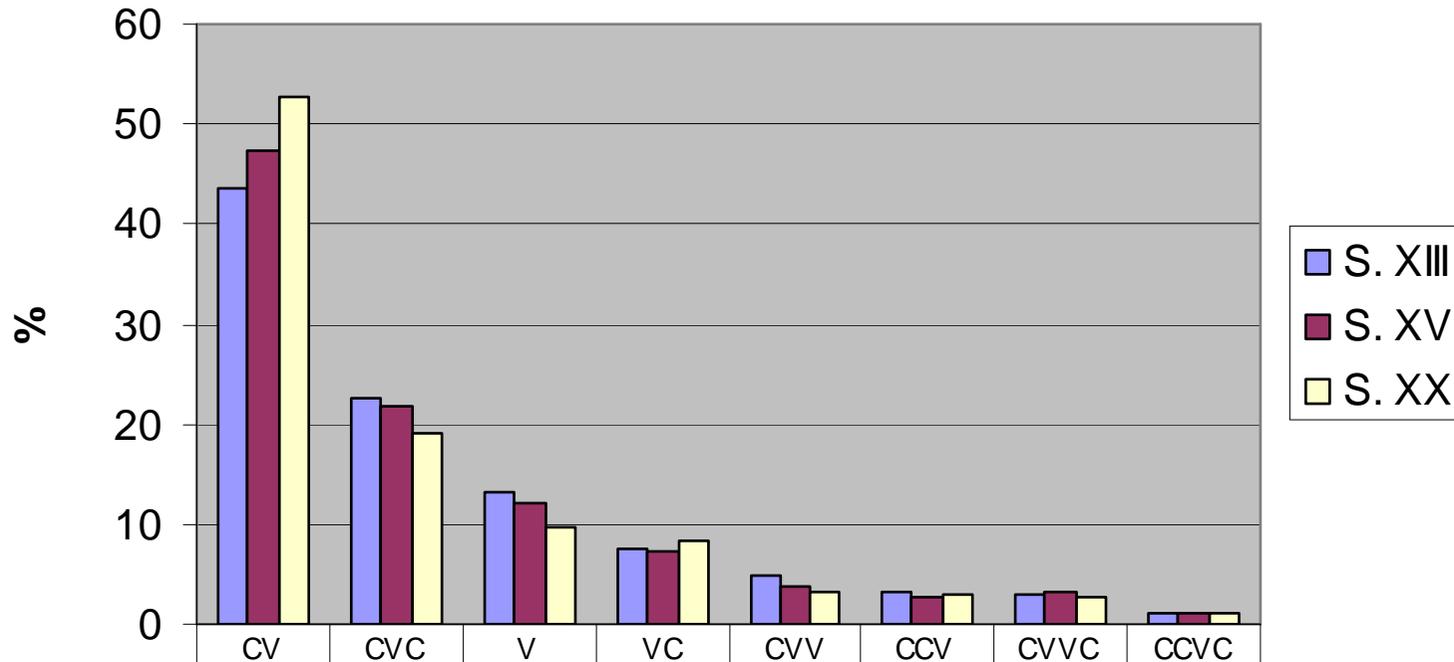
(5)

Sp. *entonces* [entonses] > [entonseh] > [entonse]

(Bybee 2001, 209)

Pervasive CV optimization: Spanish

Fréquences de types syllabiques (Guerra 1983)



■ S. XIII	43,7	22,72	13,06	7,58	4,71	3,28	3,04	1,02
■ S. XV	47,41	21,91	12,23	7,23	3,83	2,66	3,16	0,95
■ S. XX	52,64	19	9,58	8,34	3,18	3,07	2,6	0,95

2. Persistence of complex syllable shells in Romance languages

Latin: syllabic typology

(Kiss 1971, Väänänen 1981, Lehmann 2005)

- Syncope in Late Latin leading to increased syllabic complexity:

- O.CU.LUS > O.CLUS
V.CV.CVC > V.CCVC

- DO.MI.NA > DOM.NA
- CV.CV.CV > CVC.CV

- Syllables closed through apocope in Old Sp.:
- “[E]l español antiguo —desde finales del siglo XI hasta el siglo XIII y, menos claramente ya, hasta bien avanzado el siglo XIV— no estaba estructuralmente inclinado a dar preferencia al paradigma silábico /C₁V/.” (Catalán 1971, 81; cf. Tuten 2003, 160-173)
- “proliferación de las sílabas cerradas”:
proliferation of closed syllables in Old Sp.
(Catalán 1971, 78)

e.g. Old Sp. *dixol* (← LTM) vs. Mod. Sp. *le dijo*

- „For the written representation of words whose integral form they had not learned, scribes had to fall back consciously on a loose piecemeal collection of rules of thumb, probably comprising both sound-letter and syllable-multigraph correspondences. The existence of the latter type of syllabic correspondence seems possible in the light of the fact that the units are syllabic rather than phonemic in the late eleventh-century *Artes Lectoriae* from South-Western France [...] (and the fact that modern Spanish schoolchildren are taught that way as well).“

Wright (1994, 176)

(6) Lat. ABSTRACTIONE(M)>
Rom. *abstracție* (also *abstracțiune*),
It. *astrazione*, Fr. *abstraction*,
Cat. *abstracció*, Sp. *abstracción*,
EP <abstracção>(BP: *abstracção*)

(7a) It. *astrazione* /a.strat.'tsjo.ne/
V.CCCVC.C_{AFFR}GV.CV

(7b) Fr. *abstraction* /ap.strak.'sjɔ̃/
VC.CCCVC.CG_{NAS}V

(7c) Sp. *abstracción* /abs.trak.'θjon/
VCC.CCVC.CGVC

Lat. CALUMNIA > Old Sp. *calonia*,
callumpnia, *calopnia*,
calumnia, *calumpnia*,
kalonnia, *kalunnia*

(cf. García Gallarín 2007, 51)

CV optimization vs. syll. structural deterioration:

Lat. *pluvia(m)* > Pg. **chuva** (inherited voc.)

CV.CV

vs.

Lat. *pluviale(m)* > Pg. **pluvial** (learned voc.)

CCV.CGVC

(cf. Restle/Vennemann 2001)

3. A *centre vs. periphery* view on syllable type complexity in Romance languages

3.1 *Centre vs. periphery* in language systems/subsystems

- phonetics/phonology:
- Fries/Pike (1949) „coexistent phonemic systems“ („two or more phonemic systems may coexist in the speech of a monolingual“, 29)
- Pilch (1965)
- sign system: Daneš (1982)
- core grammar/periphery: Chomsky (1981, 1986)
- lexicon: e.g. Itô/Mester (1995)

(8) **Core-grammar** is that part of the relatively stable (steady) state of the language faculty (i.e. of the adult I-language) that results from the setting of parameters in UG [Universal Grammar] (the initial state of the language faculty, S_0). As opposed to the periphery, which consists of additional, marked, language-specific rules and exceptions.

(*Glottopedia*; Chomsky 1986, 147-149, 221)

(8) [E]ach actual "language" will incorporate **a periphery of borrowings, historical residues, inventions,** and so on, which we can hardly expect to – and indeed would not want to – incorporate within a principled theory of UG. For such reasons as these, it is reasonable to suppose that UG determines a set of core grammars and that what is actually represented in the mind of an individual even under the idealization to a homogeneous speech community would be a *core grammar with a periphery of marked elements and constructions*. Viewed against the reality of what a particular person may have inside his head, core grammar is an idealization.

(Chomsky 1981, 7f., emphasis added)

(10) the proportion of variable phenomena increases the closer one approaches the ‚periphery’ of the grammar, hence:

syntax < morphology < phonology < phonetics

[...], although the more peripheral language components are, of course, never entirely variable.

(Hinskens 1998, 160; emphasis added)

(11)

- 1) the central area of a language system incorporates a core of universal or near-universal (as for frequency) principles and regularities as well as further conditions (or constraints) defining grammatical features of that specific language (which it may or may not share with some other languages);
- 2) a peripheric area is characterized by additional structural features and rules which are part of the system as a whole but often constitute contrary tendencies, irregularities or rule exceptions.

Centre vs. periphery in syllable typology:

(12)

CCCV → (CCV (CVC (CV) V, VC) VCC) ← VCCC

- Universal core:

- ... (CV) ...

- Central area (language-specific):

- ... (CVC (CV) V, VC) ...

Transitional zone

... → (CCV (CVC (CV) V, VC) VCC) ← ...

Periphery (← L2-Structures/Loanword phonology)

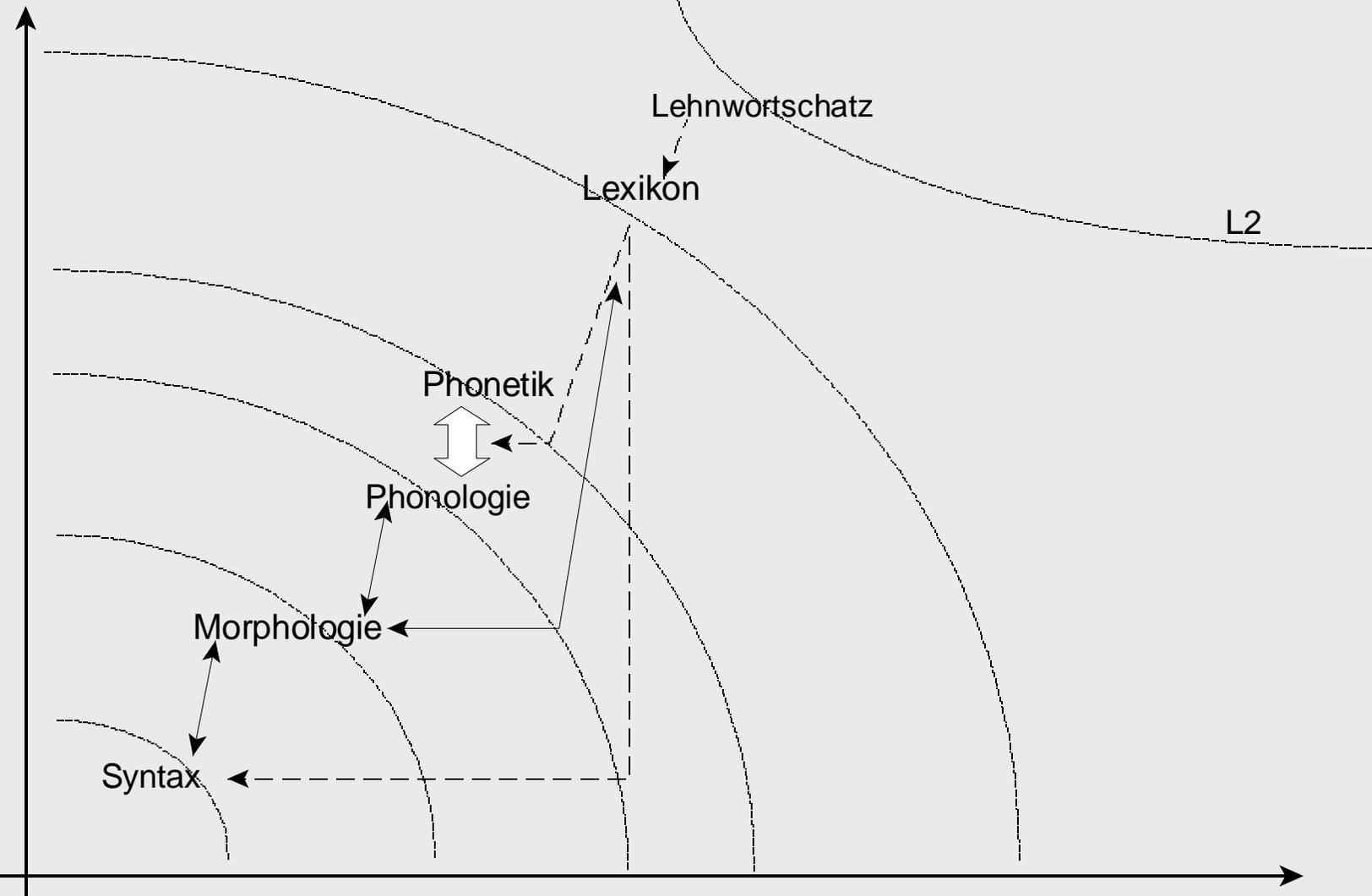
CCCV → (CCV (CVC (CV) V, VC) VCC) ← VCCC

Loanword phonology: diffusion of borrowed sound patterns

(13) [B]orrowed sound changes will usually be embedded in specific loaned items or morphemes. Initially a sound change thus borrowed will probably entrench itself for a while in the borrowing dialect in the loan words, before starting to spread in a lexically diffuse fashion.

(Hinskens 1998, 183s.)

Variation



Lehnwortschatz

Lexikon

L2

Phonetik



Phonologie

Morphologie

Syntax

Zentrum L1

Peripherie

3.2 Syllabic complexity in the periphery

Parameters for syllable size

(Blevins 1995, 219, Duanmu 2009)

Parameters	settings
Can the onset contain two sounds?	Yes/No
Can the nucleus contain two sounds?	Yes/No
Is the coda allowed?	Yes/No
Can the coda contain two sounds?	Yes/No
Can extra C occur initially?	Yes/No
Can extra C occur finally?	Yes/No

- Duanmu (2009): „CVX theory“:

■	Word	Sounds	CVX
■	<i>e. prints</i>	[prɪnts]	[p ^r ɪt ^s]

(14) [T]here is nothing intrinsically difficult about the production or perception of VVVV [e.g. a suffix *-kaaei*] in Gilbertese or CCCCCC [e.g. the finite verb *gvprckvnis*] in Georgian, and there is no evidence that these tautosyllabic sequences are in any way unstable. Rather, the rarity of such systems appears to be the result of the uncommon convergence of significant rules of consonant or vowel loss resulting in long V and C clusters respectively; prosodic systems in which stress-timing, and not syllable-timing, prevails; and unambiguous rules of syllabification. (Blevins 2004, 214)

Word margins as prominent positions for complex syllable types:

Se se tiver em conta que **as margens da palavra podem constituir posições proeminentes**, tipos silábicos **relativamente pouco frequentes** mas que se encontram nessas posições **poderão assumir maior destaque na fonologia da língua** do que outros tipos silábicos igualmente pouco frequentes.
(Frota / Vigário / Martins 2006, 10)

(15) Degrees of syllabic complexity (e.g. French)

Onset:

CCCVCC (*sprint*) > CCCVC (*strep.to.coccie*) > CCCV (*sphra.gis.tique*) >
CCGV (*droit* [drwa]) > CCV (*très*) > CGV (*Dieu*) > CV (*la*)

Coda:

CV_{NAS}CCC (*monstre*) > CVCCC (*astre, terrestre*) > CV_{NAS}CC (*montre, comble*) >
CVCC_{COMPL} (*hargne* [arp]) > CVCC (*garde*) > CVC (*bonne*)

Complexity in loanwords/learned voc.

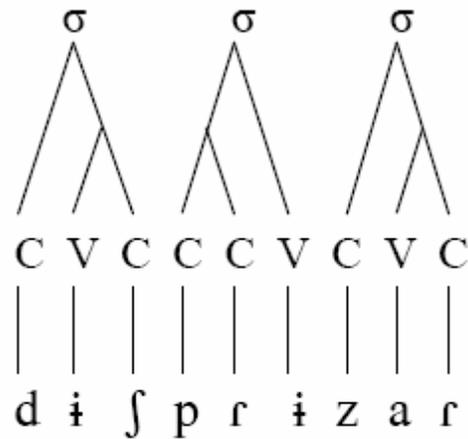
- Fr.
 - CCCVCC (*sprint, strict*)
 - CCCVC (***strep.to.coccie***)
 - CCCV (***sphra.gis.tique***)
-
- Vowel prosthesis (Sampson 2010) no longer an active process in Fr., as opposed to Sp., Cat.

3.3 Complexity induced by central systematic tendencies

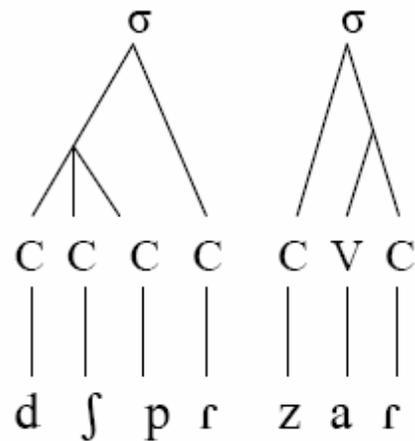
- Other sources of complexity:
- vowel deletion → complex clusters

(16) ‚Hypercomplex‘ syllables: Portuguese (EP)

(52a') EP *desprezar* Lento-Realisierung [diʃ.pɾi.'zar]



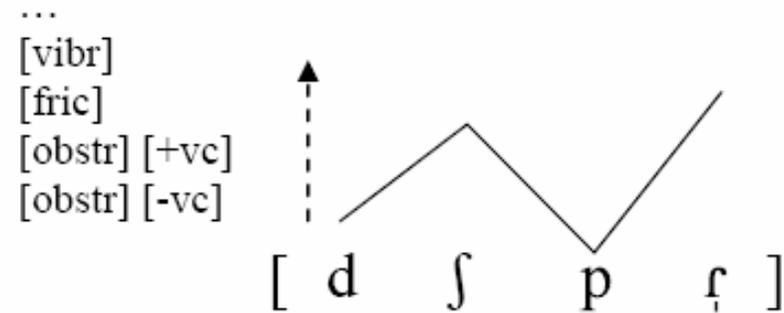
(52b') EP *desprezar* Allegro: zweisilbig? [dʃpɾ.'zar]



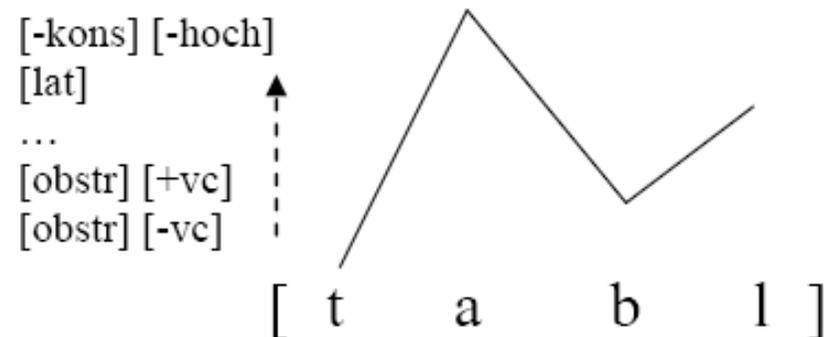
(17) Syllabic typology: simplicity vs. complexity

Sonority sequencing challenged

(61) Sonoritätsprofil pg. [dʃpʁ]zar

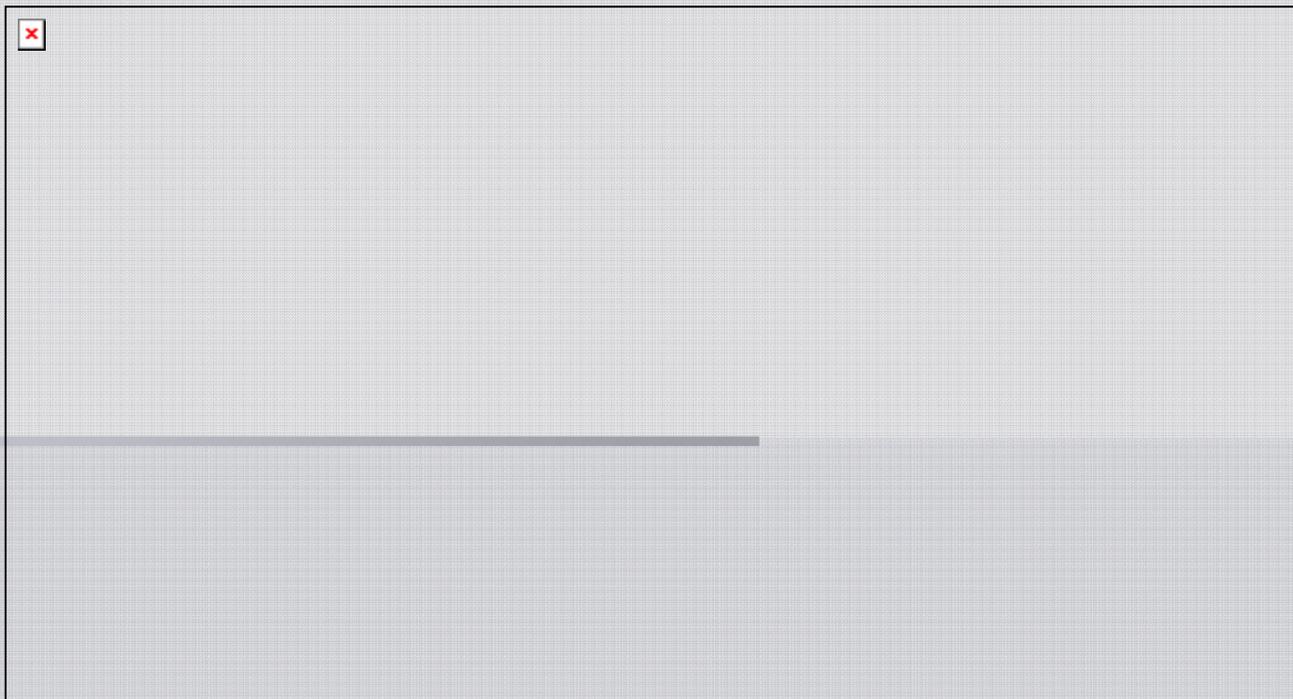


(62) Sonoritätsprofil frz. *table*



Sonority sequencing challenged

- Catalan inflectional morphology:



Effects on word structure (obscuring morphology)

(67a) *felicidade* EP [fli.si.'ðãð^(ə)]

(67b) *felicidade* BP (Caipira-Varietät) [felisi'daðʒi]

Ex. cf. Cunha (2008)

3.4 *Lento* vs. *allegro* realizations

(68a) Lento: frz. *qu'est-ce que tu fais* [kɛs.kə.ty.'fɛ], EP *desprezar* [di.ʃpri.'zar]

(68b) Allegro: frz. [ksty.'fɛ], EP [dʃpɾ.'zɛɾ].

French, EP (Krötsch 2004, Mateus/D'Andrade 2000)

NB: Allegro-style-induced vowel deletion in French goes beyond *schwa* (cliticization):

- Lento: *tu l'as vu* vs. allegro: *t'l'as vu* [tlavy]
- Lento: *cette fille-là* vs. allegro: [stə] *fille-là*
- Lento: *à cette heure-là* vs. allegro: [ast] *heure-là*

***Lento* vs. *allegro* realizations: Spanish**

cluster simplification → CV optimization

Sp. *exacto*

[eχ.'saχ.to] vs. [e.'sa.to]

***Allegro* realizations in diatopic varieties of Spanish**

Macroscopic varieties of American Sp.:

- *tierras bajas* (Lowland/coastal areas: most of Central and S-America; similar to S-peninsular Sp./Andalusian...):
 - consonantal weakening,
 - relatively stable vocalism

vs.

- *tierras altas* (Highland, e.g. Mexico, Peru):
 - vocalic weakening (without prior centralization),
 - relatively stable consonantism

***Allegro* realizations in diatopic varieties of Spanish**

bloques para apuntes ‘notepad’ Pl.

Southern peninsular/American (*tierras bajas*) Sp.:

[blo.ke^(h).pa.ra(:).pun.te^(h)]

Mexican Sp. (*tierras altas*):

[blo**ks**.pa.ra.pun**ts**]

(cf. Lope Blanch 1969, Kabatek 1994a; Blaser 2007, 82s.)

Differing strategies of cluster simplification resulting in optimal CV.CV pattern:

- Sp. *assoluto* [a.**so**.'lu.to]: C-cluster reduction
- BP *assoluto* [,ɐ.**bi**.so.'lu.tu]: epenthetic cluster resolution

4. Conclusion: syllabic complexity as a typological variable

(18) Western Romance

Syllable types	Allegro	Lento
simple	Sp. (Southern peninsula, <i>tierras bajas</i>), BP	EP, Standard Fr.
complex	EP, Standard Fr., Sp. (<i>tierras altas</i>) + central	Sp. (Southern peninsula, <i>tierras bajas</i>), BP + peripheric

Tab. 1 *Syllable types resulting from Lento- vs. Allegro style realizations*

- „[t]he diachronic viewpoint [...] provides an explanation both for the structural tendencies and for the exceptions to them. [...] the real job is to understand the mechanisms of change that create these common paths of development” (Bybee 2001, 215)
- → „trajectories of change“/drift?
- Synchrony: CV optimization in Southern peninsular and American Spanish (*tierras bajas*)
- → ‚profiling‘ the syllable end of the continuum (optimal CV shape)

- *Syllable vs. word* as central domains for rhythmic typology – a continuum in Ibero-Romance:

- *Syllable*

- S-pen., *t. bajas* Sp., pen. Sp., BP ←

- (inventories: core syllables)

Word

→ EP

(+ complex syll.)

- Catalan?

Two types of syllable shell complexity in Romance languages

- Complexity in a synchronically stable **periphery** of the syllable type inventories (loanword phonology, lexically fixed in learned borrowings):
 - Sp., Fr., Pg. (EP, BP), Cat., (It.?, Rum.)
- Complexity as a result of **central** systematic processes (vowel deletion):
 - EP, French (Rum.?)

- Conclusion: according to prototypical syllable structural parameters of the syllable-word continuum:

- simple syllable types (CV)
- well-defined, speech-rate independent syllable boundaries
- sonority hierarchy obeyed

the least syllable-oriented Romance cases are French, EP (Cat, Rum?)

Thank you for your attention.