BBN-ANG-243 Advanced Phonology: Phonological Analysis

Lecture 5: Word Stress Part 2

Annotated version: see the Yellow Pages after sets of slides

Kiss Zoltán / Starcevic Attila / Szigetvári Péter / Törkenczy Miklós
Dept of English Linguistics, Eötvös Loránd University

(1) Metrification = *determining where the stresses are*

(2) Rightmost stress in a word (='1ry'): predictability

(2.1) The 3-syllable window

There must be a stress within the final 3-syllable window of a word: (σσσ#)

á.ni.mal ho.rí.zon kan.ga.róo

i. *apparent* counterexamples are due to morphology: #-suffixation

rá.di.a.t # ing	ám.pli.fi. # er	u.ni.lá.te.ra.l #i.sm	cá.pi.ta.l #ize
ˈrɛj.dɪj.ɛj.t#ɪŋ	ˈam.plɪ.fɑj.#ə	jʉw.nɪ.ˈla.tə.rə.l#ɪ.zm	ˈka.pɪ.tə.l#ɑjz

ii. real counterexamples (true exceptions) are rare

á.ris.to.crat	mé.lan.cho.ly	cá.ter.pi.llar
ˈa.rəs.tə.krat	ˈmɛ.ləŋ.kə.lɪj	ˈka.tə.pɪ.lə

THESE NOTES (*THE YELLOW PAGES*) ARE ANNOTATIONS EXPLAINING (LIKE THE ACTUAL LECTURE WOULD HAVE DONE VERBALLY) THE SLIDES THAT PRECEDE. THE NUMBERS IN BRACKETS ( ) REFER TO THE SECTION NUMBERS OF THE SLIDES.

This is the second part of the two lectures are about word stress, i.e. the stressing of words spoken in isolation as if each word were a "one-word sentence" (not when words are combined into phrases or sentences – phrase stress will be discussed in the set text on phrase stress/intonation, see Lecture 6). This part is about metrification, specifically, about the predictability of the rightmost stress (i.e. the 1ry stress) in a word.

(2.1) 1ry stress has to fall on one of the last three syllables of an English word, i.e. within 'the final three-syllable window'. There are very few real counterexamples (2.1.i), and some words whose stress is outside the 3-syllable window are not real counterexamples because they contain a strong boundary suffix which is outside the domain of metrification (2.1.ii).

(2.2) Stress within the 3-syllable window: two views

(2.2.1) The 'no-pattern view'

English 1ry stress is lexical, i.e. (*mostly/completely*) unpredictable. It is lexically determined for every word and it can be anywhere within the 3-syllable window independently of the phonological properties of the syllables within the window and/or the morphological features of the word.

(2.2.2) The 'pattern-with-exceptions view'

English 1ry stress is *mostly/generally* predictable. Metrification has to take into consideration phonological properties of the syllables within the 3-syllable window, extrametricality and the morphological features of the word. The standard generative treatments are based on this view (what follows is based on the analysis of Hayes 1882)

There are two conflicting views about English stress. One view, the ‘no-pattern view' maintains that there is no stress pattern in English, i.e. English stress is not predictable. According to the other view, the ‘pattern-with-exceptions view’, there is a very intricate pattern (with many rules and exceptions).

The ‘no-pattern view'

According to proponents of the no-pattern view no rules that are sufficiently general can be formulated about the place of word stress, therefore English word stress is lexical and it has to be memorised for every word by native speakers.

There are some regularities, e.g. 1ry stress has to fall on one of the last three syllables of an English word, i.e. within ‘the final three-syllable window', but the place of stress is unpredictable within the limits of these regularities.

The ‘pattern-with-exceptions view'

According to the pattern-with-exceptions view, there is a stress pattern in English, stress is (mostly) predictable: it is the result of several factors (partly morphological and phonological) and there are exceptions (English stress is partly lexical).

The analysis I will present below is a pattern-with-exceptions view and is based on the classic generative phonological analysis of English stress (Bruce Hayes, 1982. Extrametricality and English Stress. *Linguistic Inquiry* 13: 227-276)

(3) 1ry stress in polysyllabic words

(3.1) 1ry stress in polysyllabic words

(3.1.1) When the last vowel *IS NOT* a long V or a diphthong

	NOUNS			**VERBS**	
= 2 σ	#Lσ# ˈtɛ.nənt *ténant*	#Hσ# ˈpɪj.tə *Péter*	#σH# ˈvɔ.mɪt *vómit*	#σL# ˈoːl.tə *álter*	#σH_{SH}# toː.ˈment *tormént*
> 2 σ	...σLσ# ˈɔ.rɪ.dʒɪn *órigin*	...σHσ# hə.ˈrɑj.zən *horízon*	...σH# ɪ.ˈma.dʒɪn *imágine*	...σL# də'lɪvə *delíver*	...σσH_{SH}# ˈdʒɛ.njə.flɛkt *génuflect*

Generalisations:

N The ultimate syllable is not stressed. Focus on the penultimate: stress the penultimate if it is heavy, but stress the antepenultimate if the penultimate is light.
Apparent problem: #Lσ# *ténant*

V The ultimate syllable can be stressed. Focus on the ultimate: stress the ultimate if it is superheavy, but stress the penultimate if the ultimate is heavy or light.
Problem: ...σσH_{SH}# *génuflect*

If we first examine words whose *last syllable does not have a long vowel/diphthong*, we find the following two patterns: the noun patterns and the verb pattern

(3.1.1)

THE NOUN PATTERN

i. 1ry stress falls on a H penult, if there is one — ˈ**H** σ #

examples: *a**gén**da, a**ppén**dix, ho**rí**zon*

ii. **otherwise** 1ry stress falls on the antepenult — ˈ**σ** L σ #

examples: *A**mé**rica, **á**sterisk*

There is an apparent problem only: bisyllabic nouns whose initial syllable is light (e.g. *ténant*) get stress on their *penultimate light* syllable # ˈL σ # although according to (ii) above a penultimate light syllable should not be stressed. Clearly, this is only possible because they do not have an antepenultimate syllable that would otherwise get the stress.

THE VERB PATTERN

i. 1ry stress falls on a Superheavy ult, if there is one — ˈ$\mathbf{H}_{\mathbf{SH}}$ #

examples: *pre**vént**, con**dúct***

ii. **otherwise** 1ry stress falls on the penultimate σ — ˈ**σ** σ #

examples: *in**há**bit, i**má**gine*

There is a problem here: verbs longer than bisyllabic whose ultimate syllable is superheavy (*génuflect*) have antepenultimate stress and not final stress as (otherwise) required by (ii) above. We will see that this is due to another rule (the Alternating Stress Rule)

Nouns (typically), suffixed adjectives (typically) and *some* unsuffixed adjectives follow the noun pattern and verbs (almost always) and *some* unsuffixed adjectives and adjectives ending in *-ic* follow the verb pattern.

(3.1.2) When the last vowel *IS* a long V or diphthong

	NOUNS	**VERBS**
= 2 σ	#σ**σ**#	#σ**σ**#
	brə.ˈkɛjd bamˈbʉwː	səˈdɛjt əˈbɛj
	brocáde *bambóo*	*sedáte* *obéy*
> 2 σ	...**σ**σσ#	...**σ**σσ#
	ˈdɑj.nə.mɑjt ˈka.bə.rɛj	ˈɒ.pə.rɛjt səˈlɪdɪfɑj
	dýnamite *cábaret*	*óperate* *solídify*

Generalisations: There is no difference between the stressing of nouns and verbs. The ultimate syllable is stressed if the word is bisyllabic and the antepenultimate syllable is stressed if the word is longer than two syllables

This can be expressed by two rules:

Long Vowel Stressing (LVS):	stress long-vowelled final syllables
Alternating Stress Rule (ASR):	σ σ ó # → ó σ σ #

where LVS must apply before ASR

Derivation:			
	UR	# *sedate* #	# *cabaret* #
	LVS	# *sedáte* #	# *cabarét* #
	ASR	–	# *cábaret* #
	SR	[səˈdɛjt]	[ˈkabərɛj]

(3.1.2) Let us examine words whose *last syllable does have a long vowel/diphthong*,

(i) long vowels/diphthongs in final syllables are regularly stressed in bisyllabic words (even in nouns), and

(ii) a word (of any word class) regularly has antepenultimate stress if it is longer than two syllables and has a long vowel/diphthong in its final syllable (even if it is a verb). This is expressed by two rules: Long Vowel Stressing (LVS) and the Alternating stress Rule (ASR)

LVS precedes ASR and if the word is long enough, both apply (e.g. *cábaret*) but if the word is shorted than three syllables, only LVS can (*sedáte*).

.

.

(3.2) The noun pattern and the verb pattern can be seen as ONE stress pattern

IF we assume that (i) the *last syllable* is outside the domain of metrification for nouns and (ii) *the last consonant* is outside the domain of metrification for verbs:

- nouns and verbs differ in extrametricality not in stress pattern
- extrametricality: nouns <σ># verbs <C>#

	NOUNS			VERBS	
= 2 σ	#L<σ>#	#H<σ>#	#σL<C>#	#σL#	#σH<C>#
	ˈtɛ.<nənt>	ˈpɪj.<tə>	ˈvɔ.mɪ<t>	ˈoːl.tə	toː.ˈmen<t>
> 2 σ	...σL<σ>#	...σH<σ>#	...σL<C>#	...σL#	...σσH<C>#
	ˈɔ.rɪ.<dʒɪn>	hə.ˈrɑj.<zən>	ɪ.ˈma.dʒɪ<n>	dəˈlɪvə	ˈdʒɛ.njə.flek<t>

General Main Stress Rule (MSR): *Within the domain of metrification* stress the rightmost σ if it is H, otherwise stress the preceding σ

Derivations

UR	animal	horizon	vomit	adopt	genuflect
LVS	–	–	–	–	–
Extr	ani<mal>	hori<zon>	vomi<t>	adop<t>	genuflec<t>
MSR	áni<mal>	horí<zon>	vómi<t>	adóp<t>	genufléc<t>
ASR	–	–	–	–	génuflec<t>
SR	[ˈanɪməl]	[həˈrɑjzən]	[ˈvɔmɪt]	[əˈdɔpt]	[ˈdʒɛnjəflekt]

(3.2) The two basic patterns, the noun pattern and the verb pattern can be seen as phonologically the same if we assume that he only difference between them is the domain of metrification, i.e. extrametricality (see 2.4 of the previous lecture). Specifically, extrametricality is different for noun pattern items and verb pattern items. In noun pattern items it is the last syllable of the word that is extrametrical, while in verb pattern items it is only the last consonant (if there is one). Extrametricality does not apply if the word-final syllable has a long vowel/diphthong

Given this assumption we can have just one General Main Stress Rule (MSR) for all items, which derives the correct stress patterns. Look at the sample derivations on page 11, where extrametricality is indicated by angled brackets < > and the change introduced by each rule is highlighted in red in the appropriate line. Notice that the stress pattern of *génuflect* is explained: it gets final stress regularly by MSR which is then moved two syllables to the left (regularly) by ASR.

.

(4) Some problems

(4.1) Conversion (zero derivation): no change

chihuahua	[tʃɪˈwɑːwə]	Don't chihuáhua$_V$ my plátypus$_N$!
platypus	[ˈplætəpəs]	Don't plátypus$_V$ my chihuáhua$_N$!

(a) **conversion**: có<mment>$_N$; có<mment>$_V$ vs. (b) **derivation by restressing**: ré<cord>$_N$; recór<d>$_V$

Problem: (a) vs. (b) is unpredictable

(4.2) Some 'prefixes' of Latin origin in verbs: *o=, ex=, im=, con=, re=, inter=, contra=, intro=, re=*

- may not receive 1ry stress – although they receive 2ry stress regularly

o=mít	(compare *édit*)
inter=véne	(compare *óperate*)

- analysis: they are *outside* the domain of 1ry stress assignment: ~~o~~=mí<t> ~~inter~~=vé<ne>

Problem: circularity, often nothing other than stress itself identifies them

(4.3) Internal sC clusters

(i) Two syllabifications of word-internal sC clusters

(a) s.C

(b) .sC

(ii) Examples

(a)	(b)
σ. Ĥ.<σ>#	σ́. L.<σ>#
σ. V_S s. C-	σ. V_S . sC-
az.ˈbɛs.təs	ˈmɪ.nɪ.stə
asbéstos	*mínister*
Aláska	*áncestor*
Francíscan	*órchestra*
aspidístra	*índustry*
contéstant	*Prótestant*

Problem: (a) vs. (b) is unpredictable

(4.4) Syllabification of diphthongs

(i) Two interpretations of diphthong

a.	D = V_L	ne.on	**nɪj** . ən	**H**H
b.	D = V_SC	ne.on	**nɪ** . jən	**L**H

(ii) Examples

(a) σ. **Ḧ**.<σ>#
dɪ.ˈzɑj.ə

desíre
esquíre
paríah
Messíah

(b) σ́. L.<σ>#
ˈsa.tɑ.jə

sátire
émpire
sápphire
úmpire

Problem: (a) vs. (b) is unpredictable

(4.5) VANILLA nouns

Penultimate LIGHT syllable gets stress (irregularly) **ˈL<σ>#** **(a) vaní<lla>** **vs.** **(b) áni<mal>** (regular)

anténna, assássin, dilémma, gorílla, guerílla, Henriétta, Nantúckett, savánna, spaghétti, Mississíppi, Kentúcky, umbrélla, vanílla

Problem: (a) vs. (b) is unpredictable

(4.6) CARESS verbs

Final V_SC syllable gets stress (irregularly) **ˈV$_s$<C>#** **(a) caré<ss>** **vs.** **(b) edi<t>** (regular)

abét, abhór, addréss, asséss, begín, caréss, conféss, discúss, forgét, fulfíll, progréss, rebél, repél, impél

Problem: (a) vs. (b) is unpredictable

(4.7) Nouns stressed on their final short vowelled syllable

Final syllable gets stress although vowel is short (irregularly) **ˈV$_s$C#** **(a) hotél** **vs.** **(b) cá<mel>** (regular)

batón, Brasíl, canál, duét, duréss, giráffe, hotél, quartét, sedán, Sudán, Susánne

Problem: (a) vs. (b) is unpredictable

(4) There are some stress patterns that are not predicted by the rules above and therefore must be considered irregular under this analysis.

(4.1) Conversion

In English, verbs can be freely derived from nouns by conversion (zero derivation) without any change in pronunciation (including stress). Take, for instance, the nouns *plátypus* (Ornithorhynchus anatinus, 'kacsacsőrű emlős') and *chihuáhua* ('a Mexican breed of dog '), both of which follow the noun pattern: *pláty<pus>* /ˈplatəpəs/ and *chihuá<hua>* /tʃɪˈwɑːwə/. In the examples in (4.1) the word for the same animal is a noun in one sentence and a verb in the other – nevertheless the stressing does not change, it remains *chihuahua* /tʃɪˈwɑːwə/ and platypus /ˈplatəpəs/. The problem is that in this way there is a great number of verbs that actually follow the noun stress pattern.

(4.2) Some 'prefixes' of Latin origin in verbs

These are not proper prefixes in the sense that in English as they do not have an identifiable meaning and the bases that they precede do not have an identifiable meaning either (e.g. *omit, explain, confess, intervene*, etc.). However, they may interfere with the stress rules (MSR, ASR) discussed. Typically, they fall outside the domain of 1ry stress placement, may not receive 1ry stress (although they receive 2ry stress regularly) and only the base is visible to the stress rules discussed above. E.g. the verb *omít* should be **ómit* according to the MSR (**ómi<t>*, compare *édi<t>*), but it must be analysed as o=mít to get the actual stressing /əˈmɪt/. The problem is that, as there is no real morphological motivation for analysing these word-initial sequences as prefixes, the analysis is circular: the 'prefix' analysis is only motivated by the anomalous stressing it is designed to explain.

(4.3) Two syllabifications of word-internal sC clusters

In some words a medial sC cluster appears to syllabify as an onset (V.sC), in others as a coda+onset sequence (Vs.C). If the vowel preceding the sC cluster is short, then its syllable should count as light under the former syllabification, but as heavy under the latter one (because a closed syllable is heavy even if its vowel is short). Compare the nouns *mínister* /ˈmɪnɪstə/ and *asbéstos* /asˈbestəs/. Different words may require different syllabifications. The problem is that it is unpredictable which word belongs to which group.

(4.4) Two analyses of diphthongs

Diphthongs may be analysed in two ways: either as a long vowel or as a short vowel followed

by a consonant (a glide). This has a consequence for the weight of the syllable they are in: (a) under the first interpretation it is heavy (since the diphthong counts as a long vowel), (b) under the second it is light: it is an open syllable with a short vowel (because the consonant (the glide) syllabifies into the next syllable due to Onset Maximisation); see (2.3.ii) of the previous lecture. The stress rules discussed in this lecture assume the first interpretation: *desíre* /dɪ.ˈzɑj.ə/. However, some words seem to require the second interpretation: *sátire* /ˈsa.tɑ.jə/. The problem is that it is unpredictable which word belongs to which group.

(4.5) Vanilla nouns

There are some nouns longer than two syllables whose penultimate syllable is light and (nevertheless) stressed, e.g. *vanílla*, *anténna*, *assássin*, *dilémma*. The problem is that it is unpredictable which nouns belong to this group rather than the regular one with antepenultimate stress.

(4.6) Caress verbs

There are some verbs whose ultimate syllable is stressed although it is not superheavy, e.g. *haráss*, *acquiésce*, *begín*, *omít*, *prefér*. The problem is that it is unpredictable which verbs belong to this group rather than the regular one that have final stress.

(4.7) Nouns stressed on their final short vowelled syllable

There are some nouns whose ultimate syllable has a short vowel but nevertheless gets stressed, e.g. *cemént, ellípse*, etc. The problem is that it is unpredictable which nouns belong to this group rather than the regular one with non-final stress.

(5) Derived words: affixes and stress; the relationship between affix shape and stress placement

(5.1) Stress-neutral suffixes: strong-boundary suffixes, which do not change the stress-pattern of their bases

féver féverish édit éditing

- analysis: they are *outside* the domain of metrification fé<ver>#~~ish~~ édi<t>#~~ing~~

(5.2) Stress-placing suffixes: weak-boundary suffixes, which may change the stress-pattern of their bases

- analysis: they are *inside* the domain of 1ry stress assignment = metrified together with their bases:

sán+i<ty>

- (sometimes) there is a connection between the shape of a weak boundary suffix and the position of stress assigned by it

Problem: given the above assumption about the metrification of weak boundary suffixes we would expect words containing them to behave like monomorphemic words (=no internal boundary). This is not always the case:

σL<σ> (noun) sá.ni.ty ✓ but no.ve. létte ✗ compare: ánimal

(a) pre-stressed 1: primary stress falls on the syllable preceding the suffix.

Shape

(i) -Lσ *-uble, -ity, -ety, -erie, -ion, -ular, -logy, -meter, -graphy, -poly, -tomy, -pathy, -thesis, -gamy*

- these suffixes follow the noun pattern and stress placement follows from their shape

abíli<ty> confórmi<ty>

(ii) -H *-ic, -ish*$_{V/N}$

- these suffixes follow the verb pattern and stress placement follows from their shape

anatómi<c> militarísti<c>

(b) pre-stressed 1/2 1ry stress falls on the syllable preceding the suffix if it is H, but on the 2nd syllable preceding the suffix if the syllable preceding the suffix is L.

Shape

(i) *-σ* *-age, -al, -ous, -ive, -ant, -ance, -ent, -ence*

- these suffixes follow the noun pattern and stress placement follows from their shape

medíci<nal> parén<tal>

(ii) *-σσ* *-ative, -ature, -ible, -ery, -ary, ory*

- 1ry stress placement does not follow from the shape of these suffixes.
fí.gu.rative de.món.strative

(c) Pre-stressed 2 1ry stress falls stress on 2nd syllable preceding the suffix (if possible)

Suffix shape

-(C)V:(C) -ateV, -ize, -ite, -ene, -ine, -cide, -oir, -ose, -tude, -(i)fy

- These suffixes place 1ry stress by Long Vowel Stressing (+ the Alternating stress Rule)
  rádiate, sedáte

(d) auto-stressed: 1ry stress falls on the suffix itself

Auto-stressed suffixes are exceptional and 1ry stress placement does not follow from their shape

	Shape	
(i)	-(C)VV(C)	*-ade, -ese, -ique* [iːk], *-ee* [iː]

lemonáde

(ii) -VCC *-esque*

picturésque

(iii) -VC *-esce, -ette*

novelétte

(5) Derived words

There are two kinds of suffixes: (5.1) stress-neutral suffixes leave the original stress of the base intact and (5.2 (i) stress-placing suffixes determine the place of primary stress in the word, they may 'overwrite', i.e. not preserve, the stress of the base

(5.1) Stress-neutral suffixes

The following are some common stress-neutral suffixes: *-able, -ly, -ing, -ed, -es, -er, -ist, -ism, -ful, -less, -ness, -hood, -ishadj , -ment, -wise.*

Stress-neutral suffixes are outside the domain of metrification i.e. neutral suffixes are disregarded when primary stress placement is determined and the rest of the word is metrified without the suffix:

(5.2) Stress-placing suffixes

Words (only) containing stress-placing suffixes are metrified in the same way as underived words, i.e. (i) the reason why stress-placing suffixes influence the placement of stress is that they are metrified together with the base they are added to and (ii) (ideally) the way a particular stress/placing suffix influences the placement of primary stress derives (a) from the phonological shape of the suffix and (b) its morphological properties (i.e. whether it derives nouns, verbs, etc.).

For example the suffix *-ity* places the stress on the syllable preceding the suffix because it derives a noun, so its final syllable will be extrametrical and its initial syllable is light, *-ity* is -L<σ> , therefore the MSR stresses the syllable preceding it: σ́L<σ>

Unfortunately, stress assignment by some stress-placing suffixes is not so straightforward..

1ry stress is

- calculated R>L from # boundary
- weight-sensitive
- non-iterative (MSR applies only once)
- not stress preserving
- partially unpredictable: many exceptions

(6) Reliability

(6.1) “Exceptions” (see (4) above)

(6.1.1) When the last vowel *IS NOT* a long V or a diphthong

	NOUNS			VERBS	
= 2 σ	#L̲σ#	#H̲σ#	#σH#	#σL̲#	#σS̲#
	ˈtɛ.nənt *ténant*	ˈpɪj.tə *Péter*	ˈvɔ.mɪt *vómit*	ˈoːl.tə *álter*	toː.ˈmɛnt *torményt*
	səˈmɛnt *cemént*	həw.ˈtɛl *hotél*	rɪgˈrɛt regrét	–	ˈkɔ.ment *cómment*
> 2 σ	...σL̲σ#	...σH̲σ#	...σH̲#	...σL̲#	...σσS̲#
	ˈɔ.rɪ.dʒɪn *órigin*	hə.ˈraj.zən *horízon*	ɪ.ˈma.dʒɪn *imágine*	dəˈlɪvə *delíver*	ˈdʒɛ.njə.flɛkt *génuflect*
	vəˈnɪlə *vanílla*	ˈka.rək.tə *cháracter*	?	ˈma.sə.kə *mássacre*	ˌkɔm.prə.ˈhɛnd *comprehénd*

(6.1.2) When the last vowel *IS* a long V or diphthong

	NOUNS		VERBS	
= 2 σ	#σ**σ**#		#σ**σ**#	
	brə.ˈkɛjd	*brocáde*	sə.ˈdɛjt	*sedáte*
	ˈrabɑj	rábbi	ˈman.dɛjt	*mándate*
> 2 σ	...**σ**σσ#		...**σ**σσ#	
	ˈdɑj.nə.mɑjt	*dýnamite*	ˈɔ.pə.rɛjt	*óperate*
	ˌkaŋ.gə.ˈrʉw	kàngaróo	ˌvɔ.lən.ˈtɪː	vòluntéer
	ə.ˈlʌm.nɑj	alúmni		

Figure 4.1. The effect of vowel length of the penultimate syllable on main stress placement: All words three syllables long and longer, both morphologically complex and morphologically simple words. χ^2=1255.02

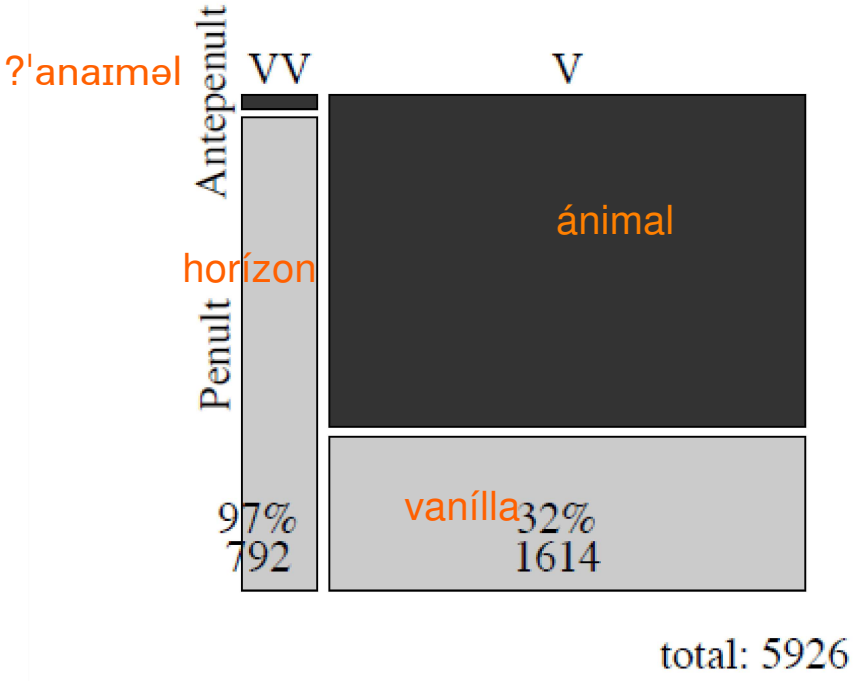
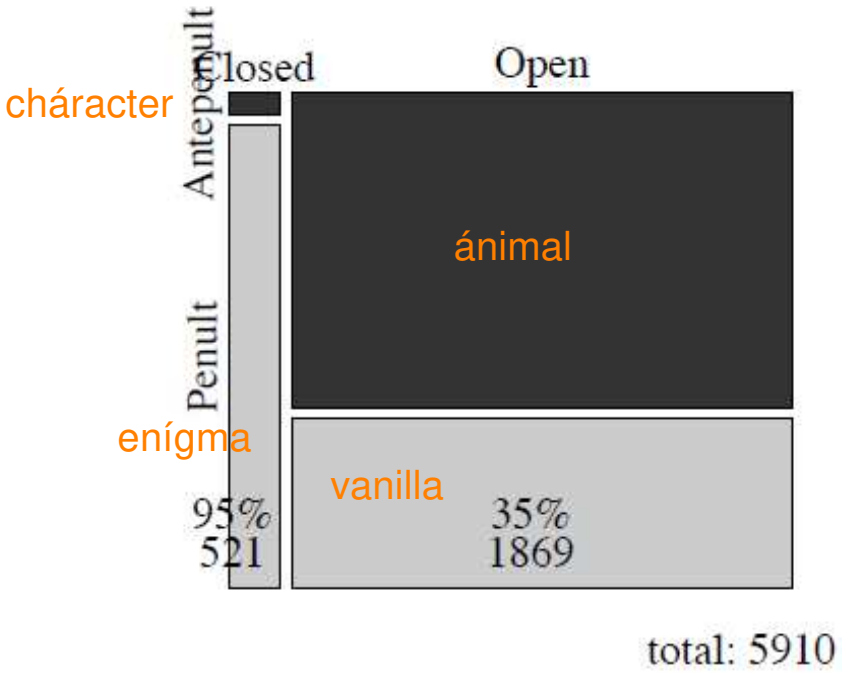


Figure 4.2. The effect of a closed penultimate syllable on main stress placement: Only consonants which cannot legally be syllabified as onset to the final vowel are counted as coda consonants. All words three syllables long and longer, both morphologically simple and complex are included. χ^2=745.99



(6) Reliability

This part of the lecture wants to show you that

(a) for almost every pattern considered regular according to the rules we discussed there are counterexamples, see the examples in orange in (6.1.1) and (6.1.2) and

(b) even the "regular" patterns are not equally reliable (figures 4.1, 4.2), e.g the pattern **σ**Lσ# is a lot less reliable for nouns than the σ**H**σ# pattern (the stressed syllable is underlined and emboldened) because there are significantly more irregular *vanílla* words compared to the regular *ánimal* words than there are irregular *cháracter* words compared to the regular *enígma* words (or irregular (hypothetical) /ˈanɑjməl/ words compared to the regular *horízon* words).

This makes the reliability of the classic pattern-with-exceptions analysis presented here somewhat doubtful.

a page intentionally left blank for no reason whatsoever