

Recessive accent in Ancient Greek revisited

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1. Setting the stage

▪ TOPIC: Recessive accentuation in Ancient Greek (7th c. BC – 3rd c. BC)¹ with emphasis on the Attic dialect.

☒ ISSUE #1: Ancient Greek (AGr) is a pitch accent system which exhibits a mixed accentual behavior: The location of the accented syllable is liable to a metrical calculation that operates on syllable count, quantity distinctions and footing. Such a metrically built structure serves as the basis for the realization of the particular accent or accent-contour (depending on the analysis).

☒ PROPOSAL: AGr accentuation is best accounted for by segregating the prosodic and metrical structure of the word. Prosodic structure determines the domain of accent assignment whereas metrical structure determines the locus of pronunciation of the pitch accent (i.e. H*+L).

☒ ISSUE #2: There is a systematic accentual difference between lexical and post-lexical words:

○ Lexical words exhibit mainly *recessive accent* (= accent that resides as far to the left as permitted by the system), although a large portion of the vocabulary remains faithful to the Indo-European (IE) heritage and displays a final accent.

→ **Hierarchy**: Recessive accent » Final accent » Other accent (i.e. penultimate syllable)

○ Noun + clitic constructions, however, seem to have developed a second default which promotes accent on the final syllable of the 'extended' (recursive) *Prosodic Word* (PW).

☒ PROPOSAL: There are two 'default' accentual patterns, an overt and a latent one. The *recessive accent* represents the default accentuation at the lexical level (PW), whereas the *final* (or else *demarcative*) accent represents the default pattern at the post-lexical level (PW-REC).

▪ FOCUS: The accentuation of nouns and noun+clitic constructions.

Organization of the talk:

2. Recessive accentuation: Data and analysis

3. An idea to work on: Latent default in noun+clitic constructions

4. Summary and conclusions

¹ Ancient Greek accentuation has been a favorite topic of investigation both in generative phonology (Kiparsky 1967, 1973, 2003; Kiparsky & Halle 1977; Sommerstein 1973; Steriade 1982, 1988; Sauzet 1989; Golston 1989; Noyer 1997; Halle 1997; a.o.) as well as in the non-generative grammatical tradition (Lejeune 1945; Vendryes 1945; Allen 1966, 1973; Devine & Stephens 1985, 1994; Probert 2000, a.o.).

2. Recessive accentuation: Data and analysis

2.1. Accentual patterns

- Ancient Greek (Attic) exhibits the following accentual patterns:

(1) *recessive accent*

a.	πέλεκυς	πέλεκυς	/peleku-s/	CV́.CV.CVC	'axe-NOM.SG'
	φίλος	φίλος	/philo-s/	CV́.CVC	'friend-NOM.SG'
	σῶμα	σῶμα	/sῶmat/	CV́V.CV	'body-NOM.SG'
	οἶκος	οἶκος	/oiko-s/	CV́V.CV	'house-NOM.SG'
b.	σώματα	σῶματα	/sῶmat-a/	CV́V.CV.CV	'body-GEN.PL'
c.	άνθρωπος	άνθρωπος	/ánthrῶpo-s/	CV́C.CVV.CVC	'man-NOM.SG'
	ήρωα	ηέρῶα	/ηερα-a/	CV́V.CVV.CV	'hero-ACC.SG'
d.	ανθρώπου	ánthrῶποο	/ánthrῶp-oo/	CVC.CV́.CVV	'man-GEN.SG'
e.	λιπόθριξ	lipóthriks	/lipothrik-s/	CV.CV́.CVCC	'bald-NOM.SG'
f.	κῆρυξ	κέρυκς	/keruk-s/	CV́V.CVCC	'orator-NOM.SG'
	κατήλιψ	κατέλιψ	/katelip-s/	CV.CV́V.CVCC	'terrace-NOM.SG'

- Comments: (a) Accent is on the APU syllable when the final syllable is light (1a-c). If the final syllable is heavy (i.e. CVV or CVCC), then accent is on the penultimate syllable (1d-f).

- The development of recessive accent was a Greek innovation which commenced in Proto-Greek (Bubenik 1983: 153) and was completed before the dialectal split (approx. 1200BC).

(2) a.	pherómenos	< <i>pherómenos</i> < * <i>phéromen-o-s</i>	Proto-Greek	'carried-MASC.NOM.SG'
b.	pheroménoo	< <i>pheroménoio</i> < * <i>phéromen-o-sio</i>	Proto-Greek	'carried-MASC.GEN.SG'

(3) *final accent*

a.	σοφός	sophós	/sophó-s/	CVCV́C	'wise-NOM.SG'
b.	ποταμός	potamós	/potamó-s/	CVCVCV́C	'river-NOM.SG'
c.	ισχυρός	iskhuurós	/iskhuu-ró-s/	CVCCVVCV́C	'powerful'

(4) *penultimate accent*

a.	πατρίδα	patrída	/patr-íd-a/	CVCV́CV	'country-ACC.SG'
b.	παιδίσκος	paidískos	/paid-ísk-os/	CVVCV́CVC	'child-DIM.NOM.SG'

- Comments:

(a) Non-recessive accent is an inherent property of lexical items, especially affixes, e.g. *-íd* (4a), *-ísko(-s)* (4b), and so on.

(b) In Attic, a considerable portion of the vocabulary is accented on the final syllable. In Aeolic, recessive accentuation is pervasive (5) whereas final accent is preserved only in a handful of function words. Accent elsewhere (i.e. PU when U not heavy) is not attested at all.

(5) a.	μέεννος	'month-GEN.SG'	(Buck 1955: 215, line 40)
	cf. Att. μέενός		
b.	σόφρος	'wise-NOM.SG'	(Bubenik 1983: 135)
	cf. Att. sophós		

- c. thúmos 'soul-NOM.SG' (Bubenik 1983: 135)
cf. Att. thuumós

2.2. Analysis

- The analysis proposed here follows in many respects Steriade (1988). However, it is cast into a representational model that exploits Hyde's (2001, 2006) idea of segregating metrical from prosodic structure.
- Basic elements of the analysis:
 - There are two tiers relevant to accent: (a) a *prosodic tier*, which, roughly, determines the position of the head foot of the word, and (b) a *metrical tier*, which basically dictates where exactly the accent will be pronounced. Finally, there is a tonal tier, in which accents are linked to specific metrical positions:

(6) *metrical, prosodic and tonal tiers*

x		
xx	xx	□ metrical tier
μμ	μμ μ	□ prosodic tier
(anthrṑṑ)pos		
		tonal tier
H	L	

- A trochaic foot (Steriade 1988) defines the domain within which the accent will be located. It is built at the right edge of the word, although its exact position hinges on the prosodic as well as the metrical weight of the final syllable.
- The pitch accent is the contour H*+L (Allen's 1966, 1973 *contonation*).
- By default, the pitch accent is realized on the head mora of the head of the foot, e.g. (*anthrṑṑ*)pos 'man-NOM.SG'. Under certain conditions, however, it may 'shift' further to the right, e.g. an(*thrṑṑ*poon) 'man-GEN.PL'.
- In word final position, closed syllables (CVCC) are heavy (i.e. bimoraic) at the prosodic level, yet light at the metrical (grid) level.
- Final consonants such as *s*, *n*, *r*, etc. do not project a mora and hence are invisible for accent assignment purposes.

☒ **Pattern 1: *pelekus* (CVCVCVC), *sōma* (CVV.CV), *oikos* (CVV.CV)**

- Final consonant extrametricality: Final consonants do not project a mora thus rendering the preceding syllable prosodically light. This is due to the high ranking of the constraint in (7):

(7) NONFIN(μ, C, ω): No mora is projected over the final consonant of a PrW.

- Final (light) syllable invisibility: According to Hyde (2001, 2006), word final syllables may *not* project their edgemost (peripheral) mora on the metrical grid. When this happens, the beatless mora is metrically invisible.

(8)	a.	□	vs.	b.	x
		μ			μ
		σ #		...	σ ... σ #
	c.	x □	vs.	d.	xx
		μμ			μμ
		/			/
		σ #		...	σ ... σ #

▪ The constraints responsible for the emergence of final gridless moras, and their respective ranking are given in (9) and (10), respectively:

- (9) a. NONFIN(X_μ , μ , ω) (Hyde 2006: 162): No mora-level gridmark occurs over the final mora of the PrW.
 b. MAPGM(μ): Every mora projects a mora-level gridmark.

▪ NONFIN(X_μ , μ , ω) should also outrank ALIGN-RIGHT (Ft, R, PW, R), the constraint that requires the (head-) foot of the word to be at the right edge of the PW:

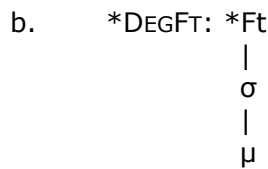
- (10) NONFIN(X_μ , μ , ω) » MAPGM(μ), ALIGN-R

▪ Pitch accent to Foot-Head: The H* targets the head of the foot:

- (11) H→FT-HEAD: The High accent must be realized on the head of the foot.

▪ Constraints on footing:

- (12) a. PARSE: Parse beated syllables into feet.



- c. *DEGFT » PARSE

(12b) should be considered as a general constraint not only on feet but also on the minimal size of words, e.g. *ph $\acute{\alpha}$ s* / **ph $\acute{\alpha}$ s*.

(13)

/peleku-s/	*DEGFT	PARSE	H→FTHD	NONFIN	AL-R	MAPGM
a. x x x ◻ ◁ (pele)kus H L					*	*
b. x x x x pe(lekus) H L				*!		
c. x x x ◻ pe(le)kus H	*!	*			*	*

(14)

/oiko-s/	*DEGFT	PARSE	H→FTHD	NONFIN	AL-R	MAPGM
a. x xx ◻ ☞ (oi)kos HL					*	*
b. x xxx ☞ (oikos) HL				*!		

▪ Comment: The H and L must be adjacent (see ADJ in (15)), hence the ungrammaticality of a possible candidate output such as (oíkōs).

| |
H L

(15) ADJ: *μ μ μ
| |
T T

(16)

/philo-s/	*DEGFT	PARSE	H→FTHD	NONFIN	AL-R	MAPGM
a. x x ◻ ☞ (phi)los H	*!				*	*
b. x x x ☞ (philos) H L				*		

▪ Comment: The ban on final mora grid projection is lifted for the sake of *DEGFT.

☒ **Pattern 2: *σάματα* (CV́.CV.CV)**

▪ The rightward accent shift in *σάματα*, e.g. (σά)μα → (σάμα)τα, suggests that the L targets the foot-tail:

(17) L→FT-TAIL: The L accent must be realized on the foot-tail.

The ungrammaticality of (oíkōs) clearly suggests that:

(18) ADJ » H→FTHD, L→FTTL

As a result, the H has to shift one mora to the right but still remain within the foot-head.

(19)

/sɔɔmat-a/	*DEGFT	PARSE	ADJ	H→FtHD	L→FtTL	NONFIN	AL-R	MAPGM
a. x x x x ◻ ☞ (sɔɔma)ta H L							*	*
b. x xx x x sɔɔ(mata) H L		*!				*		
c. x x x x ◻ (sɔɔma)ta HL					*!			*
d. x x x x ◻ (sɔɔma)ta H L			*!					

▪ Comment: Apparently, the constraint HEAD-μ(acc), which requires the accent to be realized on the head mora of the foot, is low ranked. Otherwise, a heavy syllable in Attic would not have been possible to exhibit both an acute (V́) and a circumflex accent (V̂).

☒ **Pattern 3: *ánthrɔɔpos* (CVC.CVV.CVC)**

(20)

/anthrɔɔpo-s/	*DEGFT	PARSE	H→FtHD	L→FtTL	NONFIN	AL-R	MAPGM
a. x x x xx ◻ ☞ (anthrɔɔ)pos H L						*	*
b. x xx xx ◻ an(thrɔɔ)pos H L		*!				*	*
c. x xx xx x an(thrɔɔpos) HL				*	*		

☒ **Pattern 4: *lipóthriks* (CV.CV́.CVCC)**

In words like *lipóthriks* the final consonant is invisible since it fails to project a mora and a grid mark. The prefinal one is also rendered 'extrametrical' but at the metrical, not at the moraic level.

(21)

/lipothrik-s/	*DEGFT	PARSE	H→FTHD	L→FtTL	NONFIN	AL-R	MAPGM
a. x x x x [□] li(pothriks) H L		*					*
b. x xx x [□] (lipo)thriks H L		*				*!	*
c. x x x xx li(pothriks) H L		*			*!		

☒ **Pattern 5: *anthrōpoo* (CVC.CV́.CVV) vs. Pattern 6: *katēlips* (CV.CV́V.CVCC)**

▪ To account for these two patterns, we need to draw a distinction between CVV and CVC syllables. The former are always metrically heavy, the latter are not in specific environments, i.e. word finally.

- (22) a. MAPGM_{VV}: Long vowels project two mora-level gridmarks.
b. MAPGM_{VV} » NONFIN » MAPGM(μ)

▪ Attic idiosyncrasy ('trochaic law'): Prohibition of circumflex accent on a PU syllable when final is light:

- (23) a. *μμ.L#: Accent on head-μ when final syllable is (metrically and/or prosodically) light.
(Cf. /hesta-ōto-s → *hestōtos* / **hestōtos*, Kiparsky 2003: 16)
- b. H→FTHD, *μμ.L » L→FtTL

(24)

/anthrōp-oo/	*DEGFT	PARSE	H→ FTHD	L→ FtTL	MAPGM _{VV}	NONFIN	AL-R	MAPGM
a. x xx xx x x an(thrōpoo) H L		*				*		*
b. x xx xx x [□] (anthrō)poo H L		*			*!	*	*	*
c. x xx xx x x anthrō(poo) H L		**!				*		

- **Comments:** The H has to shift to the non-head mora of the head of the foot under the pressure of satisfying L→F_TL.

(25)

/katɛlips-/	*DEGFT	PARSE	ADJ	H→ F _T HD	*μμ.L	L→ F _T L	NONFIN	AL-R	MAPGM
a. <div style="text-align: center;"> x x xx x^o ka(tɛlips) HL </div>		*				*			*
b. <div style="text-align: center;"> x x xx x^o ka(tɛlips) H L </div>		*	*!						*
c. <div style="text-align: center;"> x x xx x^o ka(tɛlips) H L </div>		*			*!				*

- **Comment:** H is kept on the head-μ due to the Attic ‘trochaic law’.

Recessive accent - Summary:

- ✓ Final moras are invisible for metrical purposes, unless they belong to a long vowel.
- ✓ A light syllable (μ) will thus be ignored for footing but a prosodically heavy one (μμ) will not, even if it is metrically light (i.e. CVC) because will project at least one grid on the metrical plane.
- ✓ The pitch accent is realized as an H*+L contonation. The H* is associated with the foot-head whereas the L targets the foot-tail. In case conflicting forces pull them apart, adjacency guarantees that the conflict will be resolved by moving the H* to the non-head mora of the foot-head.
- ✓ Attic adds an extra complexity in the distribution of the pitch accent by imposing a ban on the surfacing of an acute accent when the final syllable is light.

☒ **Pattern 7: potamós (CVCVCV́), patrída (CVCV́CV)**

- A high-ranked faithfulness constraint requires an input foot-head to surface in the output.

(26) MAX(F_T-HEAD): Preserve an input foot-head in the output.

(27)

/potamós-/	MAX(FT-HD)	*DEGFT	PARSE	H→FTHD	L→FTTL	NONFIN	AL-R
a. <div style="text-align: center;"> x x x x pota(mos) H </div>			**		*		
b. <div style="text-align: center;"> x x x □ (pota)mos H L </div>	*!						*
c. <div style="text-align: center;"> x x x x po(tamos) H L </div>	*!		*			*!	

▪ Comment: Final accent is very frequent in AGr possibly due to its demarcative function.

▪ Summary of rankings:

(28) MAX(FT-HD) *DEGFT PARSE	MAPGM _{VV} NONFIN MAPGM, AL-R	ADJ H→FTHD, *μ.μ.L L→FTTL
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no degenerate feet, unless lex. specified

final μs are gridless, unless they belong to VV
Foot is not always in absolute final position

The contour is split into two foot-positions, unless 'trochaic' is violated.

2.3. Previous analyses

▪ Steriade's (1988: 276) rule-based analysis posits the foot formation rules in (29):

- (29) a. A word-final consonant is extrametrical.
 b. A word-final light syllable is extrametrical.
 c. A syllabic trochee is built at the right edge of the word.²
 d. A *Mora Rule* which shifts a mora to the right when there is at least one mora after the bimoraic accented syllable, i.e. $\acute{V}V.V \rightarrow V\acute{V}.V$.

- (30) a. (ánthrōs)<po(s)>
 b. an(thrōspoo)
 MR
 → an(thrōspoo)

▪ As mentioned above, the analysis presented here is inspired by Steriade's (1988) analysis of AGr. However, by implementing insights from a representational model that segregates metrical from prosodic structure, we are able to capture, more straightforwardly, the complex interplay between the metrical calculations that build the grid structure and the constraints that interpret it tonally.

² Syllabic trochees are built from right-to left by the rightmost one is the head of the word. Secondary prominences are conflated.

- Golston (1989) and Sauzet (1989) independently proposed an analysis of the AGr recessive rule also relies on the notion of contonation, H+L*. The idea is that moraic trochees are built from right-to-left and the L component of the H+L* pitch accent is associated with the head of the foot. The H is realized outside the foot on the preceding mora (31a). If there is no such mora, then the H* is realized within the foot (31b):

- (31) a. án(thrᵒᵒ)pos
 anthrᵒᵒ́(poo)
 sᵒᵒ́(mata)
 b. (sᵒᵒ́)ma
 pota(mᵒ́s)

- Comment: If the tonal contour is H+L*, then why is the head tone, namely, L* trimmed off for the sake of the H? The analysis is also counter-intuitive since one expects the H accent to fall within the foot.

- Kiparsky (2003) offers an analysis along the lines of Golston’s and Sauzet’s moraic trochees but without employing the H+L* contonation. A moraic trochee is built at the right edge of the word but, due to a high-ranked IDENT(acc) constraint, the accent cannot really ‘surface’ within the foot. Because ALIGN (Head-Foot, Pitch Accent), which in essence strives against accentless feet, is also active in the system, the accent ends up landing as close as possible to the left of the foot, that is, on the preceding mora.

- (32) a. án(thrᵒᵒ)pos
 anthrᵒᵒ́(poo)
 sᵒᵒ́(mata)
 b. (sᵒᵒ́)ma
 c. pota(mᵒ́s)

- ☑ (32a): The ungrammatical **an(thrᵒᵒ)pos* satisfies ALIGN but violates IDENT(acc).
- ☑ (32b): The winning candidate violates IDENT(acc) but wins over the candidate (sᵒᵒ́)ma due to ALIGN.
- ☑ (32c): The accent cannot be realized in any other place than the foot due to IDENT(acc) (An input accent must be preserved in the output).

- Comments: (a) Unclear why the foot is accentless and an unfooted mora is accented; (b) Counter-intuitive: Input feet seem to be less marked than metrically assigned ones in the sense that their head carries a pitch accent; (c) Why is the accent realized within the foot in examples like (sᵒᵒ́)ma and not on the unfooted syllable at the right, namely *ma*?

- Halle (1997: 303) proposes the following accentuation algorithm for AGr:

(33) *Recessive rule in Ancient Greek*

- Line 0: i. Edge mark: LLL; RLR if word final syllable is light
- ii. ICC: Insert L parenthesis, R → L, binary
- iii. Heads: L
- Line 1: iv. Edge mark: RRR
- v. Heads: R
- vi. Assign high tone to the head of the word. Assign low tone to other line 0 elements.

- (34) a. *
 *)
 (* *)*
 anthrᵒᵒpos
- b. *
 * *)
 (* (* *
 anthrᵒᵒpoo

▪ **Comment:** The `)' bracket signals extrametricality. However, in clitic constructions, clitics are also assumed to sponsor such a bracket, e.g. *)tis, ti)nos*, etc. whereas at the same time the final syllable is subjected to further metrification, as shown in (35). Thus, it is unclear what attains extrametricality in this system.

(35) *
 *) * *
 (* *) (* *)(*
 anthrṑpos tinos

3. An idea to work on: Latent default in noun+clitic constructions

- (36) a. recessively accented host (with stray σ); second accent also on host
 ānthrṑpós tis `some man`
 ānthrṑpós tinos `someone's man`
 óikós tis `some house`
 óikós tinos `someone's house`
- b. recessively accented host (no stray σ); accent on final syllable of clitic
 phílos tinos `someone's friend`
 phóiniks tinos `someone's phoenix`
 daímṑn tinos `someone's god`
- c. finally accented host; no accent on clitic
 phílos tis `some friend`
 daímṑn tis `some god`
 phṑs ti `some light`
 phṑs tinos `someone's light`
 hodós tis `some street`
 hodós tinos `someone's street`

☒ The problem:

- *(óí)(kós ti)nos*: A second accent develops due to a rhythmic constraint (e.g. *LAPSE).

Problem #1: Why *(phílos) ti(nós)* and not **(phílos) (tínos)*?

If accent shifts to the right edge of the word due to another rhythmic constraint (e.g. *CLASH), then why is this constraint inert in *(óí)(kós ti)nos*?

→ *CLASH cannot explain why *(óí)(kós ti)nos* is grammatical but **(phílos) (tínos)* is not.

Problem #2: Why *(phílos) ti(nós)* and not **(phṑs) ti(nós)*?

If accent develops in order to recuperate lapses, then why does *(phílos) ti(nós)* have an accent on the clitic but *(phṑs) tinos* does not?

→ *LAPSE cannot explain why *(phílos) ti(nós)* is grammatical but **(phṑs) ti(nós)* is not.

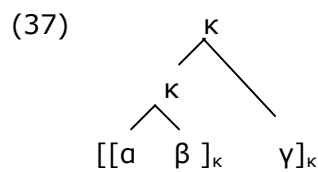
Several linguists have attempted to offer an analysis of the above facts along the lines of the re-application of the 'recessive rule' (Warburton 1970; Sommerstein 1974; a.o.). However, such approaches cannot account for what we identified here as *Problem #2*. Steriade (1988) puts forward an analysis according to which enclitics are iambically footed. Halle (1997), on the other hand, suggests that enclitics are inherently accented

with a right parenthesis ')' before their final (rightmost) syllable and, moreover, they are exempt from extrametricality.

- Is the accentuation in 'host+clitic' constructions liable to the same rules and limitations as the accentuation of lexical words?
- A different, yet related question is what type of prosodic constituent the clitic forms with its host; a PW or a PW-REC?

☑ **A hypothesis to work on:**

- Clitics prosodically adjoin to their host thus forming an 'extended', recursive PW (PW-REC).
- Recursive structures are created by the extension of an already existing prosodic constituent, yielding a two-segment prosodic category:



- This "extended" constituent exhibits an ambiguous behavior because (a) it inherits the properties of its mother (head category), and (b) being a new entity, it may develop properties of its own, especially in the context of rhythmic re-adjustment rules (Kabak & Revithiadou in press).

- AGr has two main accentual patterns: *Recessive* and *Final* (=latent default). Both patterns are almost equally frequent at the lexical level (PW) but, at the extended PW, i.e., the PW-REC, one submerges in favor of the other.

- The PW-REC is distinguished from the PW by choosing the 'most opposite' of the existing accentual patterns (polarity effect).

▪ Examples:

- *phōs tinos* → no accent on clitic because FINAL(acc) is satisfied by innermost word.
- *ōikos tinos* → no accent on clitic (*FNC) because FINAL(acc) can be satisfied by accenting the final syllable of the innermost word.
- *phīlos tinos* → accent on clitic because FINAL(acc) cannot be satisfied otherwise.

(38)

(oi)kos tinos	FINAL	*FNC
a. [[(oi)kōs] _{PW} tinōs] _{PW}		*!
☞ b. [[(oi)kōs] _{PW} tinos] _{PW}		
c. [[(phōs)] _{PW} tinōs] _{PW}		*!
☞ d. [[(phōs)] _{PW} tinos] _{PW}		
☞ e. [[(phīlos)] _{PW} tinōs] _{PW}		*
f. [[(phīlos)] _{PW} tinos] _{PW}	*!	

☑ **An alternative:** Index all 'recessive' constraints to *lexical words* and have a special rightmost default for *functional* ones.

(39) RECESSIVE_{LW} » *LEXICAL(acc) » RIGHTMOST_{FNC}

Accent on clitic will emerge only when the recessive cannot be regenerated:

(40) a. (ánthrōs)(pos ti)nos
 b. (phílos) (tinós)
 c. (phóos) tinós

- OO-FAITH ensures that lexically-assigned prominence will be respected.
- (40b): Because the foot contains the Fnc, hence RIGHTMOST_{FNC} applies.
- (40c): Still a problem, unless we assume some sort of a *LAPSE constraint (i.e. No lapse of three syllables), which activates the RIGHTMOST_{FNC} constraint only in cases like (40b).

4. Summary and conclusions

- ✓ We presented an analysis of the recessive accent in AGr in terms of a representational theory that segregates metrical from prosodic structure.
- ✓ *Major gain:* Certain peripheral elements are rendered invisible for metrical purposes but not for prosodic ones. Such metrically invisible elements cannot exercise any influence on the position of accent.
- ✓ We proposed that the pitch accent is realized as the contonation H*+L. The head of the tonal contour is aligned with the head of the foot. Unlike other analyses, the one advanced here captures the intuition that the H must be realized on the head of the foot and not outside the foot domain.
- ✓ Rightward shifts of the H in long syllables are attributed to the need of the second tonal element to be realized in the weak part of the foot.
- ✓ We also entertained the idea that two 'default' patterns co-exist in AGr: The recessive pattern, which mainly signals the innermost PW, and the final/demarcative one, which is primarily associated with the outermost PW.

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