



BUILDING A UNIFIED INTONATIONAL MODEL FOR SOUTH ASIAN LANGUAGES

INTRODUCING INTRASAL

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SALA-34, KONSTANZ, 19 JUNE 2018**

Question

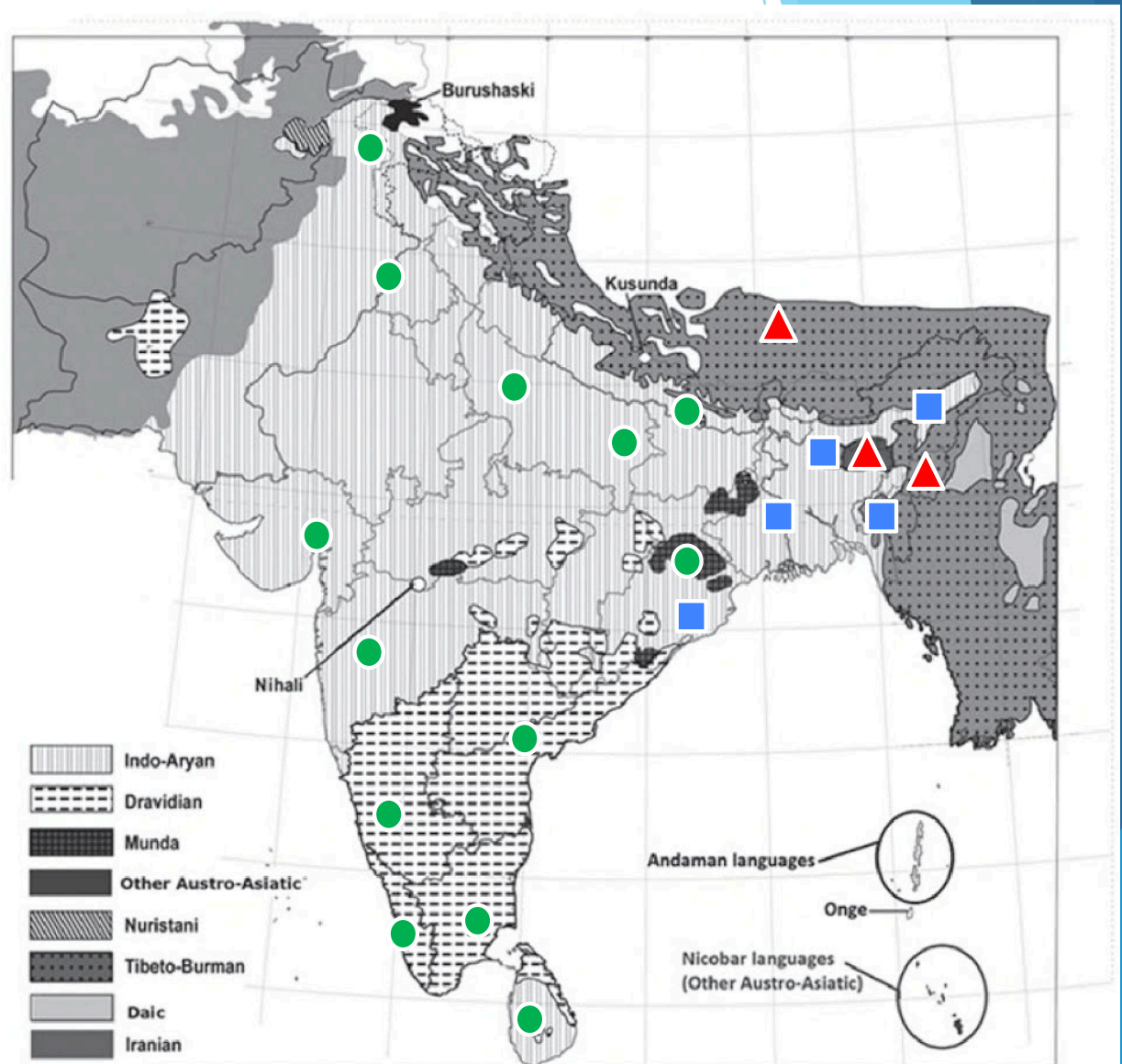
- ▶ **South Asia** has long been identified as a region of convergence: a “**linguistic area**” (Emeneau 1956)
- ▶ “Typical” South Asian lgs (SALs) have:
 - ▶ Retroflexion
 - ▶ Echo reduplication
 - ▶ No inflectional prefixes
 - ▶ SOV order
 - ▶ Non-nominative experiencer subjects
 - ▶ Vector verbs

Question

- ▶ But, the **more lgs** we examine, the more **nuanced** and **typological** these claims become (Subbārāo 2012)
 - ▶ No retroflexion in Asm, most Tibeto-Burman lgs
 - ▶ Inflectional prefixes common in Khasic lgs
 - ▶ Experiencer subjects take different case markings across SALs (*next slide*)

Question

- ▶ 'Im hungry/angry/afraid' takes:
 - DAT in Drav Igs, Munda Igs, most Indic Igs
 - ▲ NOM in Khasi, Meithei
 - GEN in East Indic, Bodo, Kokborok



South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Question

- ▶ **Question:** Is there a **typical SAL intonation**?
 - ▶ If so, what are the common characteristics?
 - ▶ What are the areas of variation?
 - ▶ Commonalities in family or sub-region?
- ▶ **Not much comparative work** in this area
 - ▶ cf. Romance Igs (Frota & Prieto 2015)
- ▶ What has been done suggests SALs have **strikingly similar intonation** (Féry 2010, Hock 2016)

Goals for this talk

- ▶ Share findings from my ongoing **comparative work** (Khan 2016)
 - ▶ Propose **InTraSAL**: a **shared intonational transcription** system for SALs
 - ▶ Highlight **areas of variation**
 - ▶ Search for **subregional patterns**

South Asian intonation

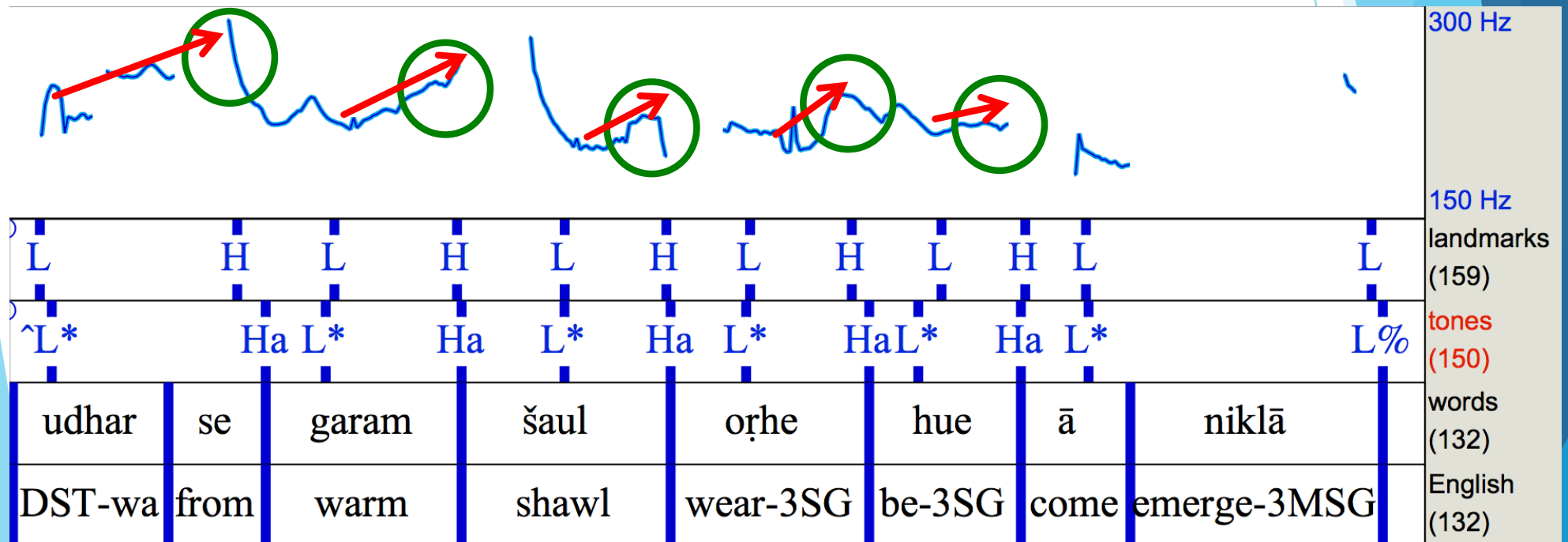
- ▶ (Why) is the intonation of SALs interesting?
- ▶ Traditional account: SALs have little to structure their intonation
 - ▶ Little/no role of **accent**
 - ▶ Phonetically weak (no “stress” per se)
 - ▶ Non-contrastive placement
 - ▶ Plays little/no role in intonation
 - ▶ **No tone**, aside from Dardic, TB, & their neighbors
- ▶ Does this suggest SALs have “ultimate freedom” in letting intonation run wild?

South Asian intonation

- ▶ Traditional account: ironically, SAL intonation appears **strikingly uniform**
 - ▶ **Identical patterns** across lgs
 - ▶ **Repetitive rising contours** (RRCs): LH pattern
 - ▶ **Strict rules** of tone alignment based on phrasing
- ▶ Maybe not so interesting after all?

Repeating rising contour

- ▶ Five **RRCs** in **Urd** demonstrating “typical” SAL pattern described in literature



All the same?

- ▶ Maybe we should assume that SALs have the **same underlying intonational system?**
- ▶ **Féry's model** of Bng, Hnd, Mlm, Tml (Féry 2010)
 - ▶ Each PP has two boundary tones: $[L_p \dots H_p]$
 - ▶ No pitch accents; everything is phrase-driven
 - ▶ No substantial cross-SAL variation in this structure

Questioning the RRC

- ▶ In this talk, I hope to demonstrate that SAL intonation is **more complex** than this
- ▶ Specifically, I want to dig into the most commonly cited SAL feature: the RRC
 - ▶ **L tone** can be attracted to **stress**
 - ▶ **H tone** can **precede** the AP edge, or even precede the pitch accent
 - ▶ **Double rise**, a **rise-fall**, or a **fall-rise**
 - ▶ Highlight cases where we don't see the canonical LH
- ▶ SALs form **subregional groups** in their intonational properties

Points to discuss

- ▶ The main points of variation I plan to cover:
 - ▶ The attraction of **tones to accent** in Hnd Urd Snd
 - ▶ A larger **pitch accent inventory**
 - ▶ A larger **AP boundary tone inventory**
 - ▶ The attraction of **H tones to length** in Dr lgs
 - ▶ **Global features** distinguishing SALs in intonation

Data sources

- ▶ Findings presented come from my **comparative work in progress** (Khan 2016), is based on recordings of/in:
 - ▶ *North Wind and Sun* fable
 - ▶ **JIPA**: Asm, Bng, Hnd, Mlm, Npl, Snd, Tlg, Tml
 - ▶ **UCLA Archive**: Hnd, Knd, Snd, Tlg, Tml, Urd
 - ▶ **Reed College LoL**: Hnd, Knd, Mlm, Npl, Urd
 - ▶ *Prosodic Typology II* (Jun 2014): Bng, Tml

InTraSAL

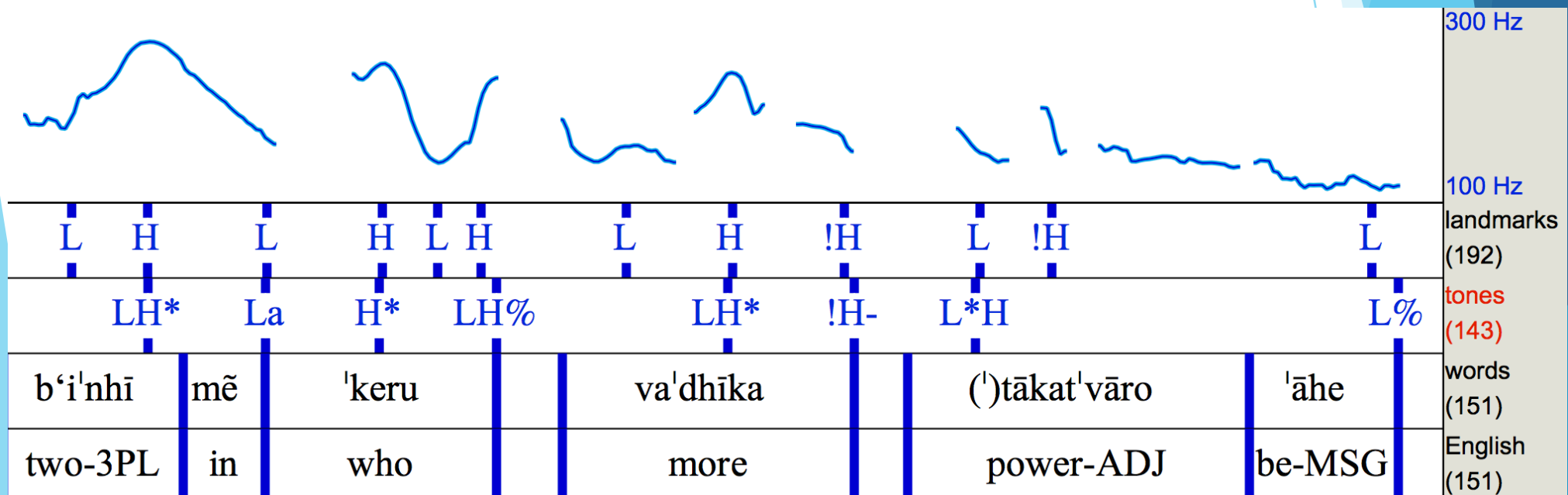
- ▶ For **crosslinguistic consistency**, examples are transcribed using **InTraSAL**
 - ▶ Intonational Transcription of South Asian lgs
 - ▶ A bare-bones version of B-ToBI (Khan 2008/2014)
 - ▶ Begins with a near-raw annotation of the contour
 - ▶ Then applies a phonological eye
 - ▶ Lg-specific variation is noted
- ▶ Uses *Intonation in Romance* (Frota & Prieto 2015) as a model for abstracting away from what might be phonetic implementation differences

InTraSAL

- ▶ Transcribing in InTraSAL involves:
- ▶ Recording of the utterance
- ▶ Pitch track
- ▶ **Landmarks tier**: notable L and H targets
 - ▶ Crucially, done before other tiers
 - ▶ Optionally, a break index tier as well
- ▶ **Words tier** for romanization of words + **stress**
- ▶ **English tier** for glosses, by morpheme
- ▶ Lastly, the **tones tier** (placed 2nd)

InTraSAL

- ▶ Landmarks tier is crucial:
 - ▶ Can help speed up transcription
 - ▶ Can mitigate the unconscious shoehorning of a new lg into tunes we find familiar



Intonational phonology

- ▶ In Autosegmental-Metrical (AM) theory (Pierrehumbert 1980, see Ladd 1996), intonational tones are classified in two ways
- ▶ **Target:** relative level of pitch
 - ▶ Low (L)
 - ▶ High (H)
 - ▶ Combinations of the two, e.g. LH, HL
- ▶ **Type:** structure to which it is associated
 - ▶ **Pitch accent** (T^{*}): marks **accent** (*see next slide*)
 - ▶ **Boundary tone** (T[°], T⁻, T_a, T_l, T_p): marks **edge**

Aside: accent

- ▶ Accent: **privileged phonological status**
- ▶ Can be marked phonetically with:
 - ▶ **Stress** ("stress accent")
 - ▶ **Pitch contour** ("lexical pitch accent")
 - ▶ **Both stress and pitch contour**
 - ▶ **Neither** ("unmarked accent")
- ▶ Any of these kinds of accented syllables can **attract a pitch accent (T*)** in intonation

Accent: Ladd's typology

- ▶ Ladd's typology of **accent marking** (Ladd 1996)

	Stress	No stress
No lexically-specified pitch contour	English, Dutch, German, Spanish, Portuguese, Italian, Polish, Greek...	French, " Bengali (and probably most of the languages of India) "
Lexically-specified pitch contour	Swedish, Norwegian, Latvian, Lithuanian, Serbo-Croatian...	Japanese, Wu

- ▶ No accent: Seoul Korean, most tonal lgs

Accent: Ladd's typology

- ▶ Ladd's typology of **accent marking** (Ladd 1996)

	Stress	No stress
No lexically-specified pitch contour	English, Dutch, German, Spanish, Portuguese, Italian, Polish, Greek...	French, most SALs
Lexically-specified pitch contour	Swedish, Norwegian, Latvian, Lithuanian, Serbo-Croatian...	Japanese, Wu, "tonal" SALs

- ▶ No accent: Seoul Korean, most tonal lgs

Points to discuss

- ▶ The main points of variation I cover here:
 - ▶ The attraction of **tones to accent** in Hnd Urd Snd
 - ▶ A larger **pitch accent inventory**
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Accent

- ▶ If SALs have no overt stress or pitch marking, (how) do we know they have accented σ 's?
- ▶ What we're looking for is **phonological strength/prominence/specialness**
- ▶ Can manifest in the power to:
 - ▶ Maintain more contrasts / resist neutralization
 - ▶ Resist patterns of reduction
 - ▶ Attract intonational tones

Accent

- ▶ Accented (i.e. initial) syllables in **Tamil...**
- ▶ Host **mid V length** contrast (Asher & Keane 2005)
 - ▶ $\bar{o}\eta\bar{u}$ 'drive' vs. $o\eta\bar{u}$ 'stick'
 - ▶ $maranto:m$ 'we forgot' vs. * $marantom$
- ▶ Resist **nasal place assimilation** (Christdas 1988)
 - ▶ $anpu$ [$anb\bar{u}$] 'love', but $/np/ \rightarrow [mb]$ elsewhere
- ▶ Resist **centralization** of $/i\ u\ \alpha/$ (Keane 2003)

Accent

- ▶ Accented (i.e. initial) syllables in **Bengali...**
- ▶ Host **tense-lax** contrast (Dasgupta 2003, Khan 2008)
 - ▶ hôto 'casualties' vs. hoto 'happen-CND-3', *hôtô, *hotô
 - ▶ ôñ- 'NEG' + êk 'one' → ônek 'many'
- ▶ Host **oral-nasal** contrast (Dasgupta 2003, Khan 2008)
 - ▶ hãṭe 'walk-3' vs. haṭe 'market-LOC', *haṭẽ, *hãṭẽ
 - ▶ ãttio < Skt ātmiya 'relatives'
- ▶ Some loans get **truncated** so prominence remains initial (Khan 2008)
 - ▶ markin < Eng 'American'
 - ▶ slamalikum < Arb assā'lāmu `a'lāyikum '(greeting)'

Accent assignment

- ▶ Many SALs are described as having fixed initial stress
 - ▶ Makes it hard to separate accentedness vs. the “specialness” of being first
- ▶ But several others are described as having stress that is not fixed to the initial syllable

Assamese weight sensitivity

- ▶ Left-oriented **Assamese-type** (Mahanta 2001):
 - ▶ Open (1μ) < closed (2μ)
 - ▶ Stress the **second** σ if heavier than initial
 - ▶ Otherwise, stress the **initial** σ
- ▶ Similar patterns described in Bng Mlm Tlg...
- ▶ (...but not without controversy)

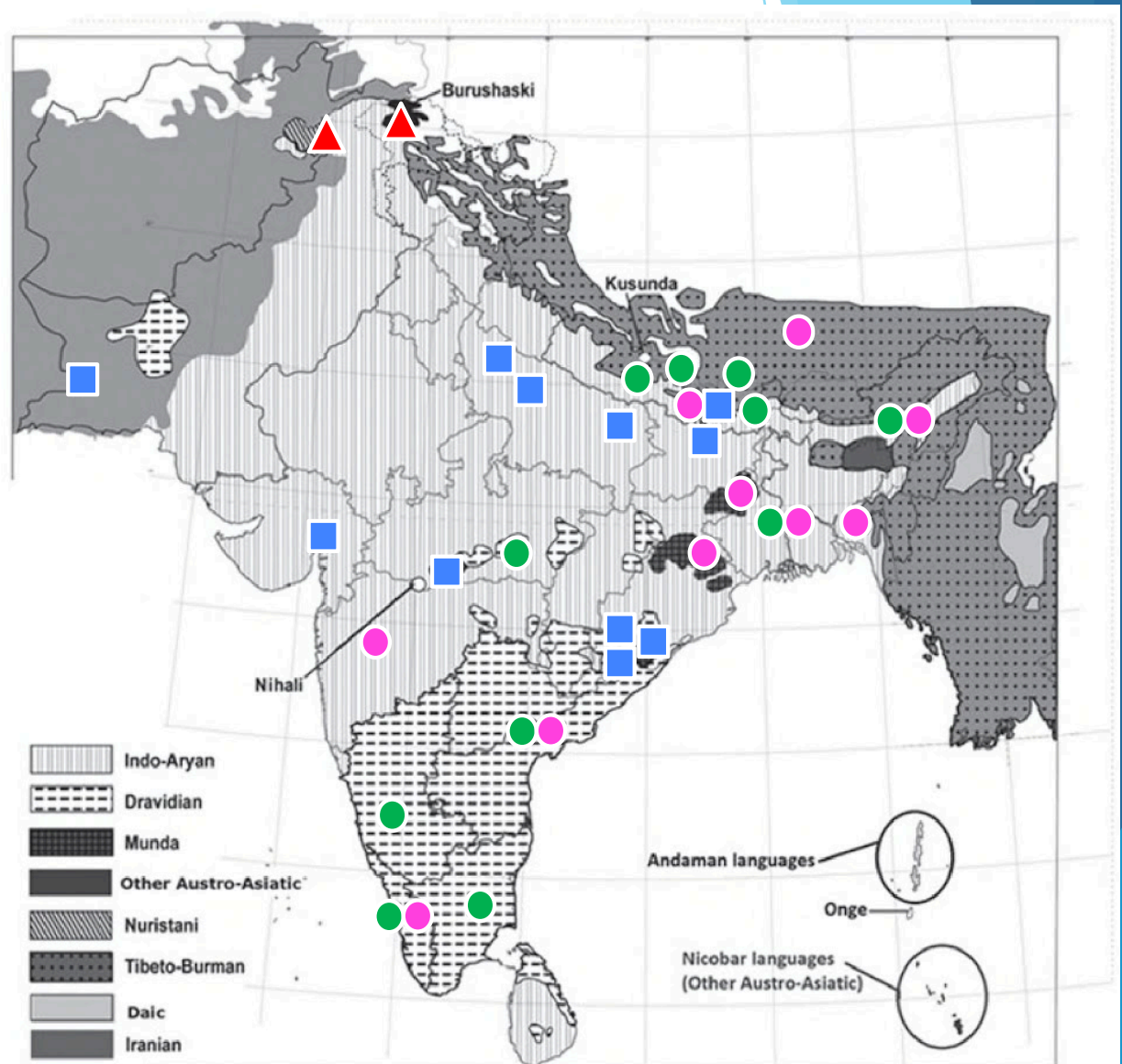
Hindi-Urdu weight sensitivity

- ▶ Right-oriented **Hindi-Urdu-type** (Hussain 1997):
 - ▶ Light (1μ) < heavy (2μ) < Superheavy ($3+\mu$)
 - ▶ Each coda C: 1μ
 - ▶ Centralized/short vowels *a i u*: 1μ
 - ▶ Peripheral/long vowels *ā ī ū e ai o au*: 2μ
 - ▶ Final μ is excluded (extrametricality)
 - ▶ Stress the **rightmost** σ with heaviest weight
 - ▶ Otherwise, stress the **penult**
- ▶ Similar patterns described for Bjp Mai Npl...

Accent assignment

► Stress assignment
(Hock 2016):

- initial
- initial+weight
- penult+weight
- ▲ contrastive



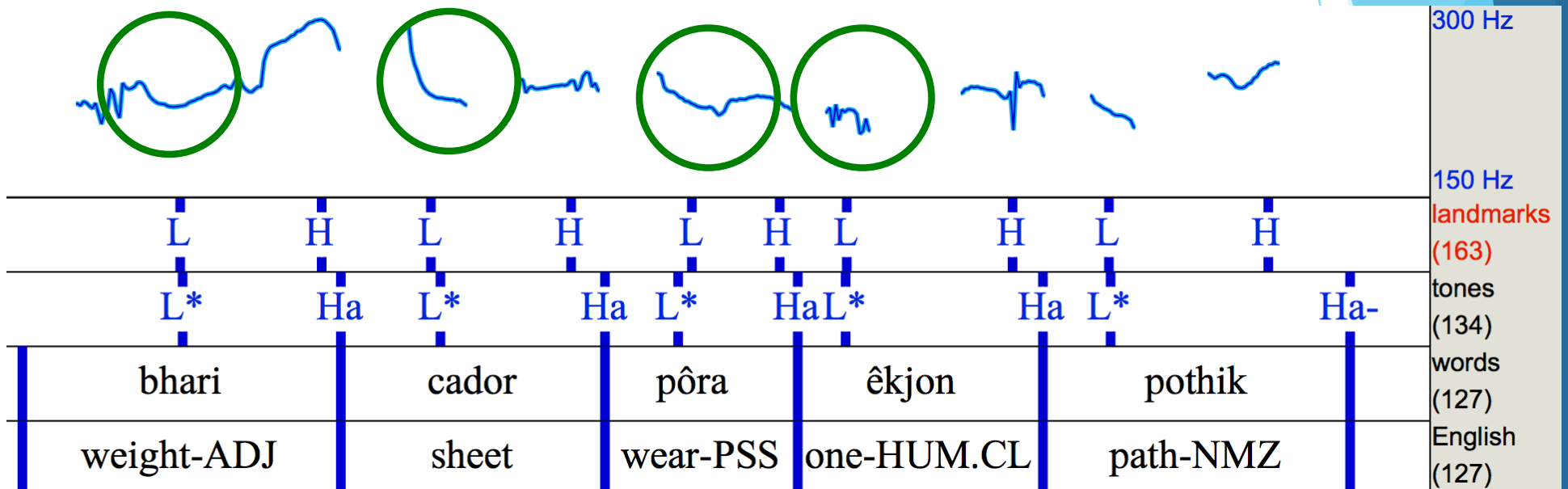
South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Accent

- ▶ So, we have evidence that SALs have (phonologically) accented syllables
- ▶ Crucially, we want to see if these syllables also **attract a pitch accent** in the intonation
 - ▶ (Preview: yes... but...)

Initial stress in Bng

- ▶ Four examples of **L*** on L-edge / stress in **Bng**

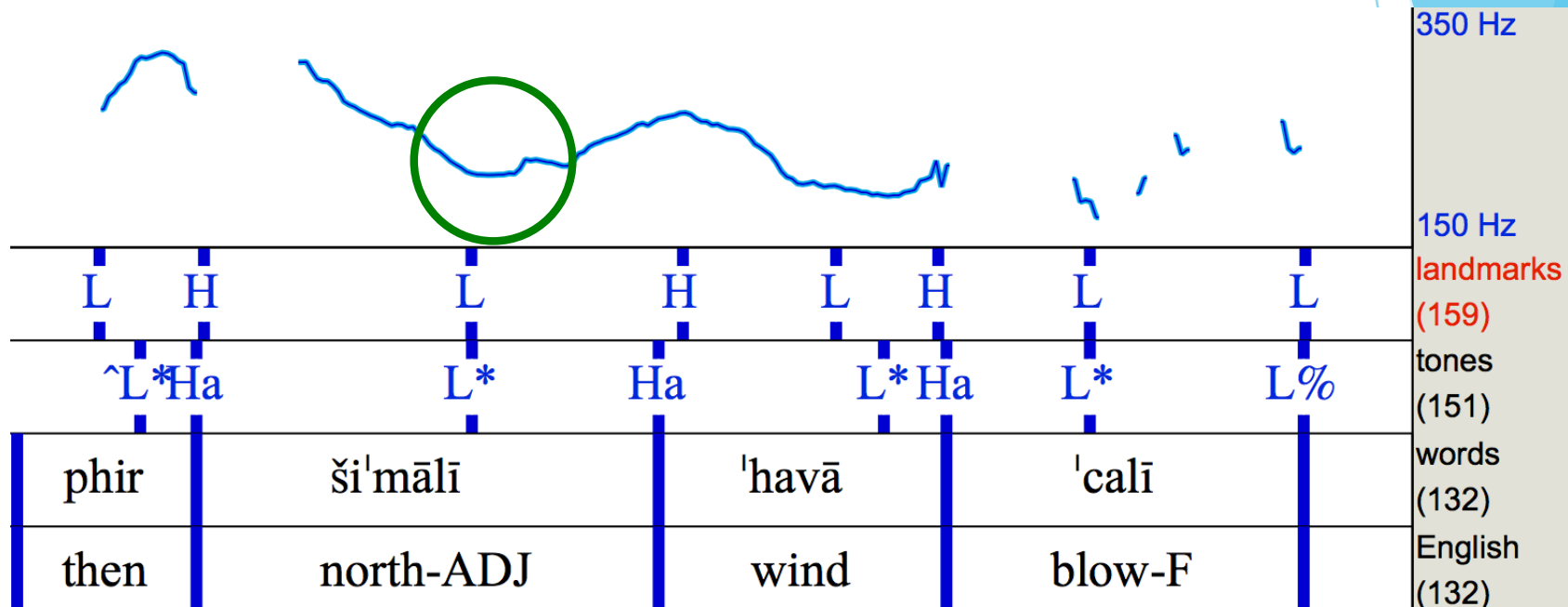


- ▶ bhari cador pôra êkjon pothik
- ▶ '...a traveler wearing a heavy cloak...'



Non-initial stress in Urd

- ▶ L* target aims for **non-initial stress** in **Urd**

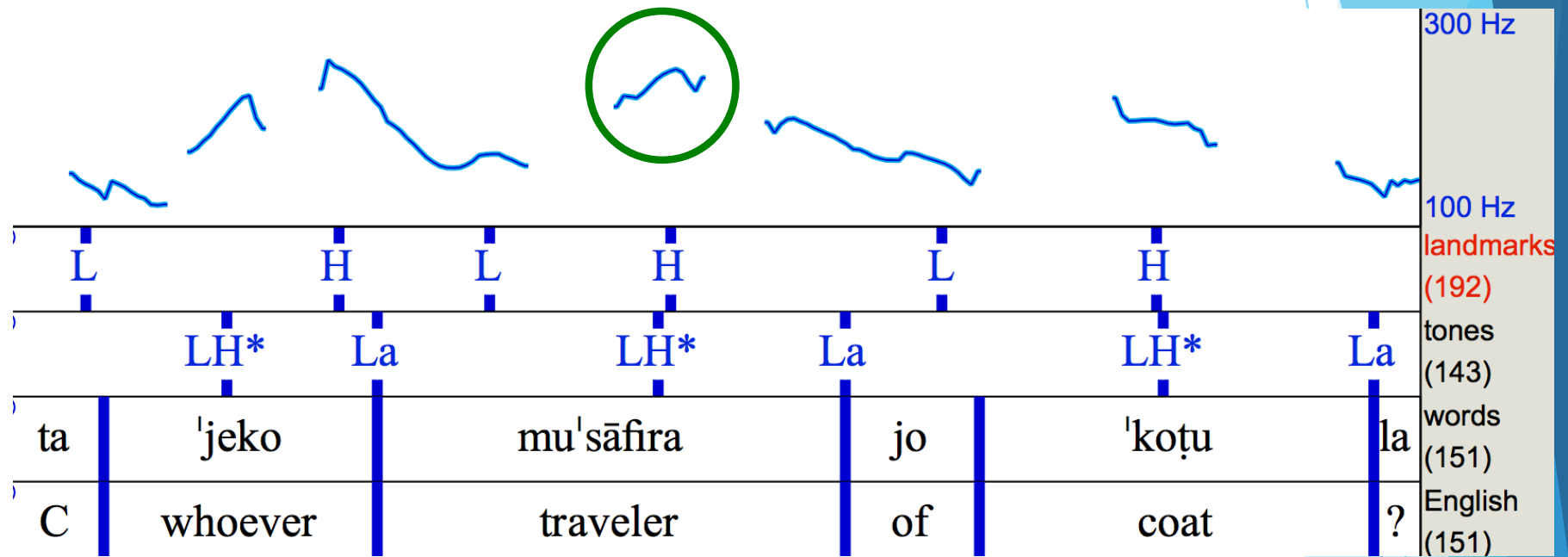


- ▶ phir šimālī havā calī
- ▶ 'Then the North Wind blew.'



Non-initial stress in Snd

- ▶ LH* target aims for **non-initial stress** in **Snd**



- ▶ ta 'jeko mu'sāfira jo 'koṭu...
- ▶ 'That whoever...the traveler's coat...'



L tone alignment

- ▶ Hnd, Urd, Snd examples support that the AP/PP's first tone is:
 - ▶ **Attracted to stress** (Genzel 2007, Patil et al. 2008)
 - ▶ **Not a boundary tone** (aL or L_P) (contra Féry 2010)
- ▶ But other speakers in other experiments would still need to be accounted for
- ▶ Variable attraction of L* to left-boundary and prominence?
- ▶ Need more data from Hnd-like SALs

Points to discuss

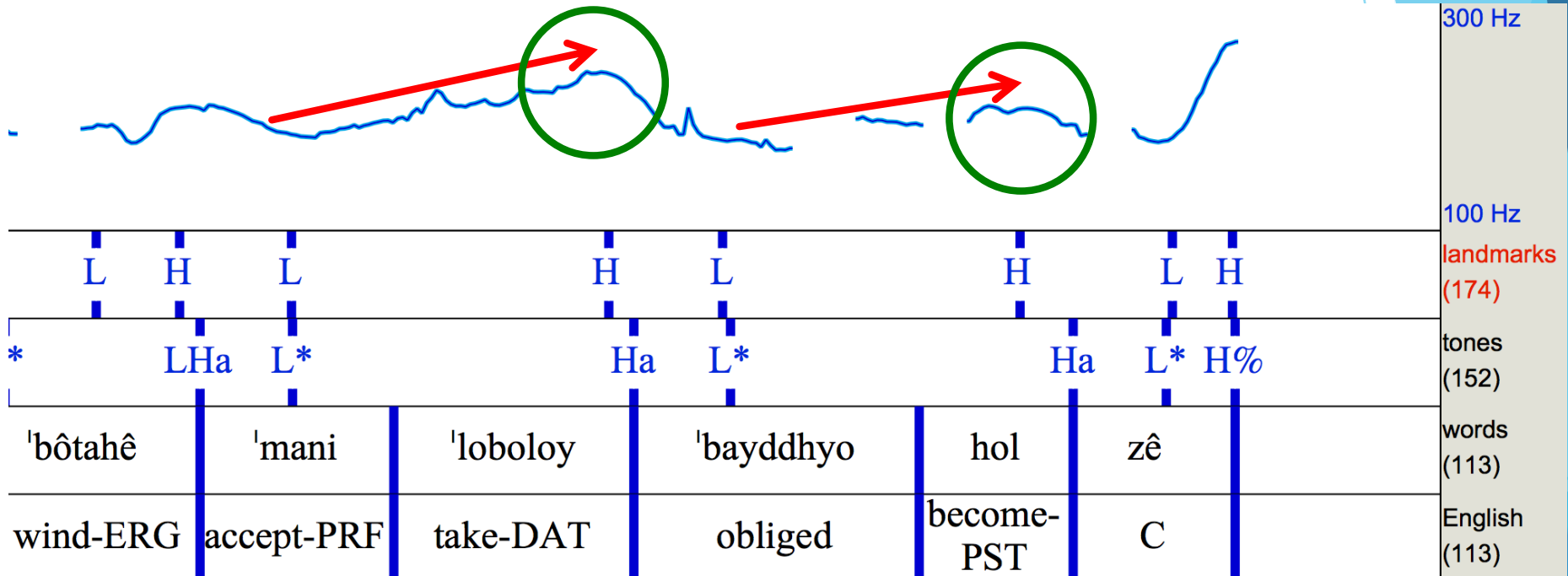
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H tone alignment

- ▶ Most accounts of SALs describe strict **right-alignment** of the AP's H tone: **Ha** (Genzel 2007)
- ▶ Ha location is useful for describing:
 - ▶ Domains of segmental processes (Hayes & Lahiri 1991, Twaha & Mahanta 2016)
 - ▶ Prosodic disambiguation of syntax (Lahiri & Fitzpatrick-Cole 1999)

AP-final H alignment in Asm

- ▶ Two examples of **Ha** in **Asm**

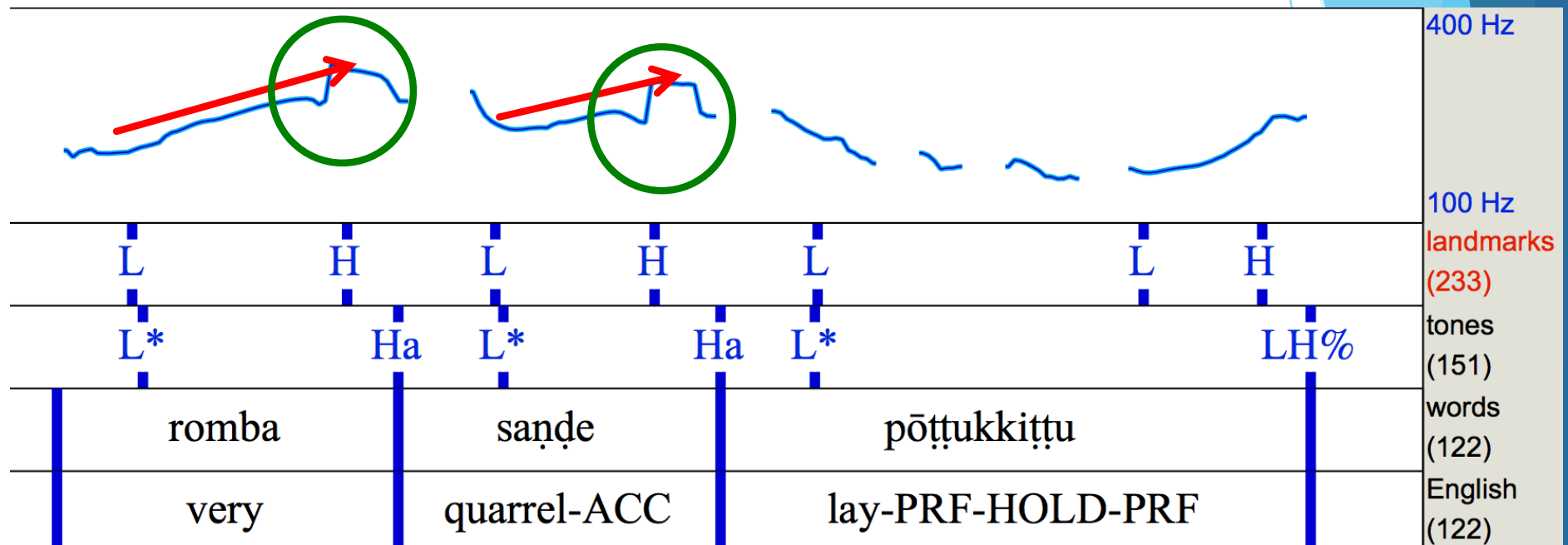


- ▶ mani loboloy bayddhyo hol zê
- ▶ '...was obliged to accept that...'



AP-final H alignment in Tml

- ▶ Two examples of **Ha** in **Tml**

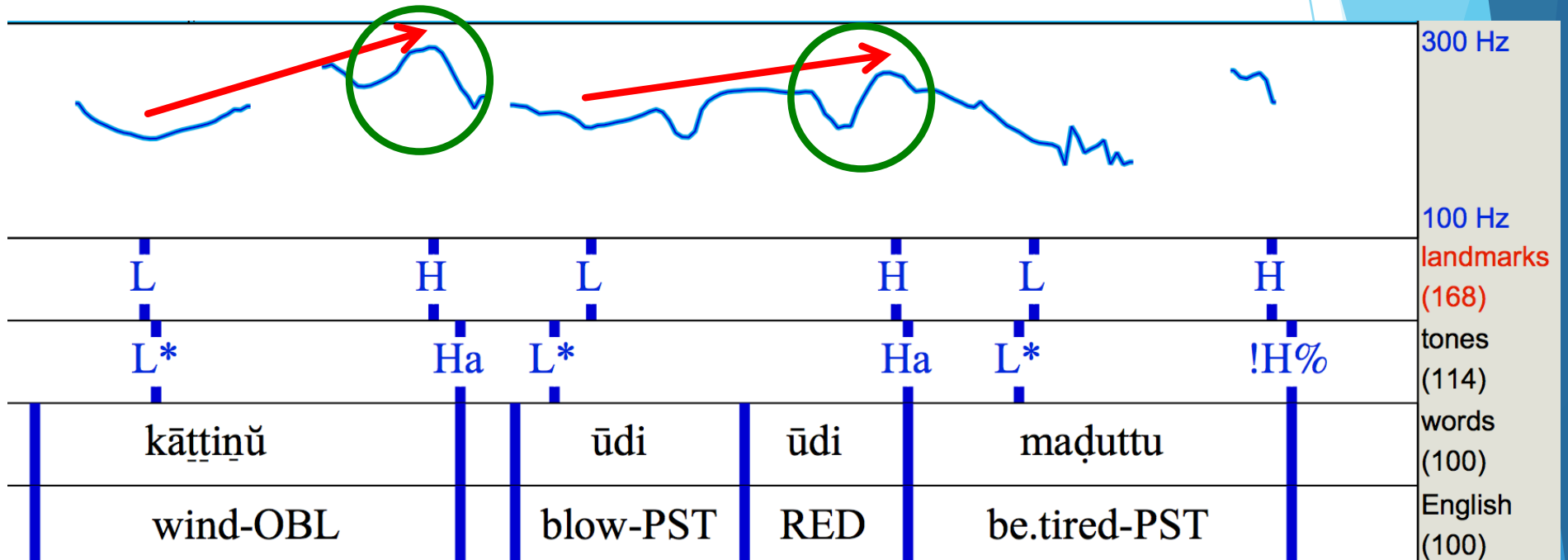


- ▶ romba saᅇde pōᅇᅇukkiᅇᅇu
- ▶ '...were having a big quarrel...'



AP-final H alignment in Mlm

- ▶ Two examples of **Ha** in **Mlm**



- ▶ *kātṭinŭ ūdi ūdi maḍuttu*

- ▶ 'The Wind got tired of blowing and blowing.'



H tone alignment

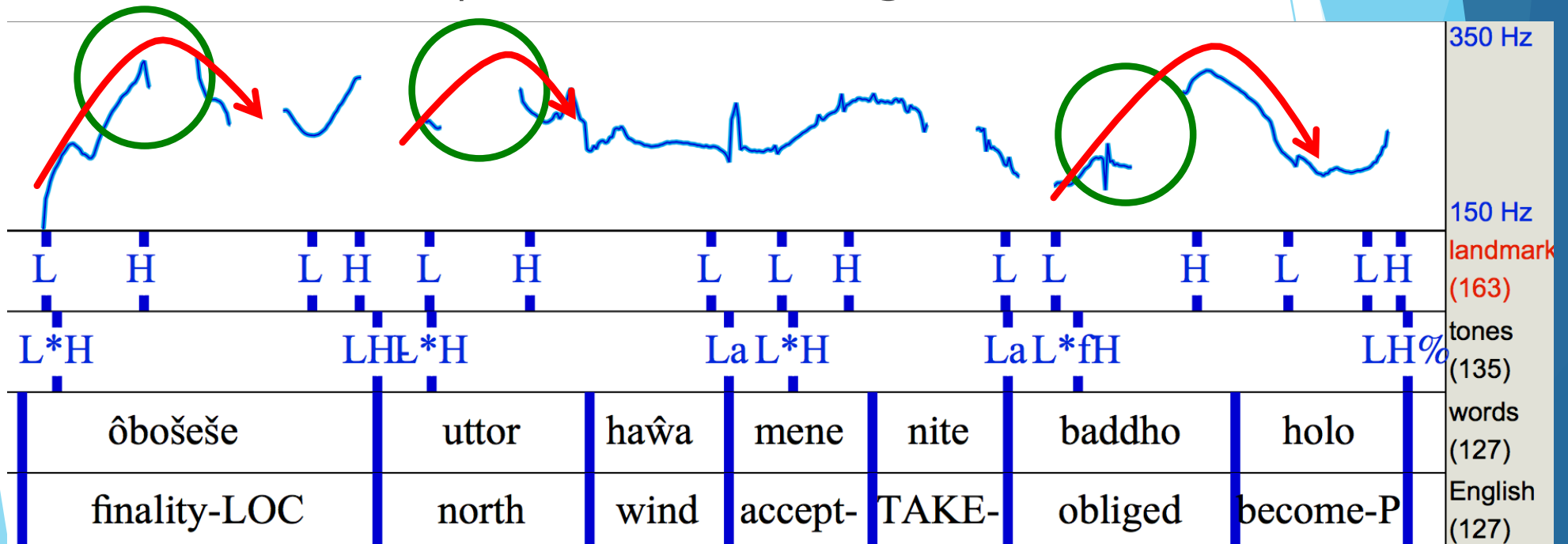
- ▶ But occasionally, researchers mention a mysteriously **early realization of this H**:
 - ▶ **H on 2nd σ in Bng, Tml**: complex pitch accent? (Khan 2014, Keane 2014)
 - ▶ **Double H in Tml**: two APs in one word? (Keane 2014)

H tone alignment

- ▶ It appears that in many SALs, some APs have a different alignment of the H: **aligned with the pitch accent**
 - ▶ **L*H**: low on stressed syllable, rise afterwards
 - ▶ **LH***: low on pre-tonic, high on stressed syllable
 - ▶ **H***: high on stressed syllable
 - ▶ **HL***: high on pre-tonic, low on stressed syllable
- ▶ **Increases our pitch accent inventory**

L*H in Bng

▶ Three examples of **L*H** in **Bng**

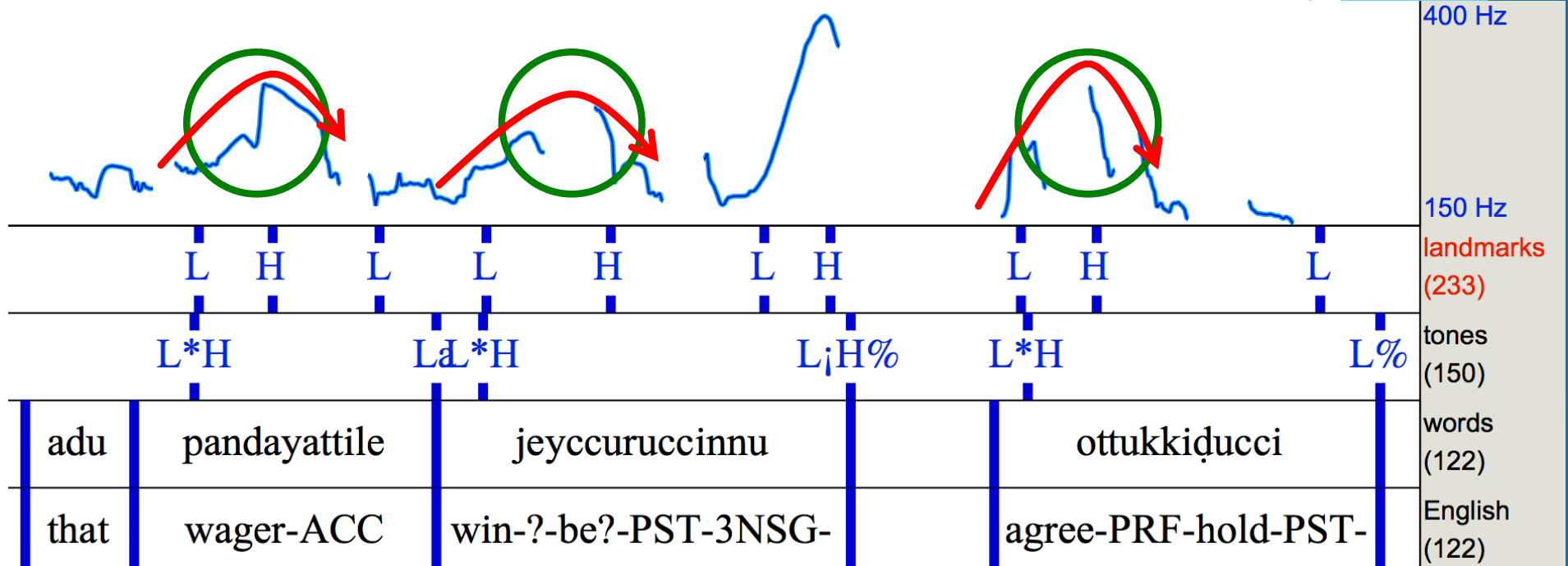


- ▶ ôbošeše uttor haâwa mene nite baddho holo...
- ▶ 'Finally, the North Wind was obliged to admit...'



L*H in Tml

- ▶ Three examples of **L*H** in **Tml**

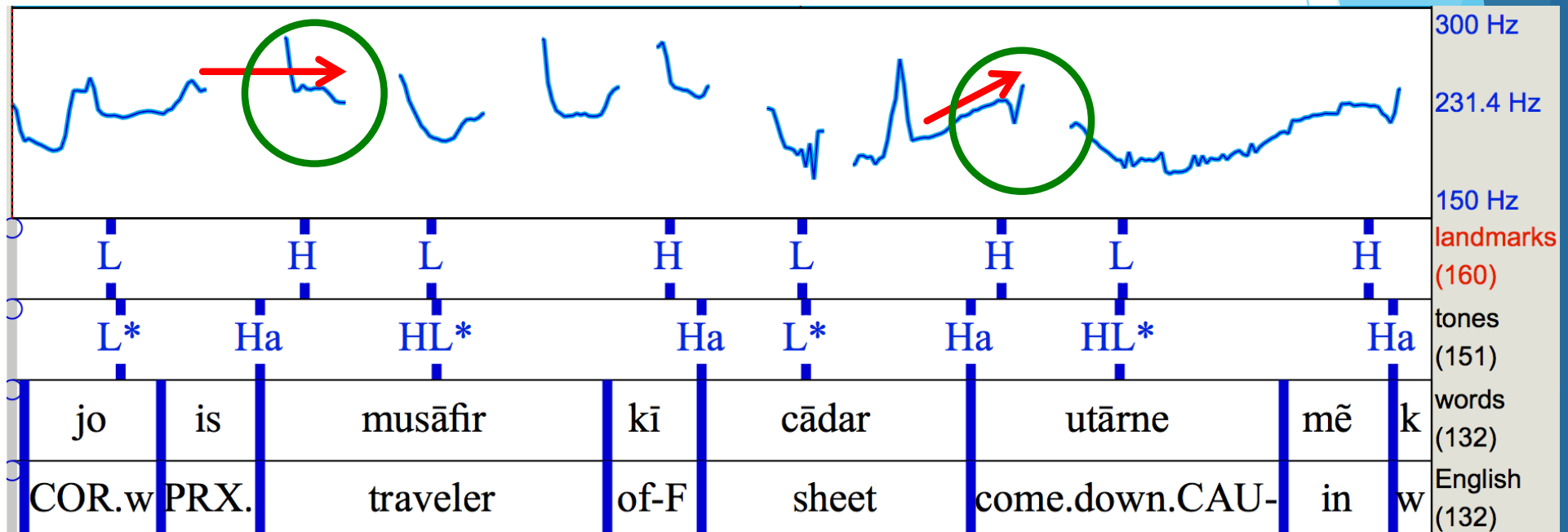


- ▶ ...adu pandayattile jeyccuruccinnu ottukkiḍucci
- ▶ '...agreed that he had won the wager'



HL* in Urd

- ▶ Two examples of **HL*** in **Urd**

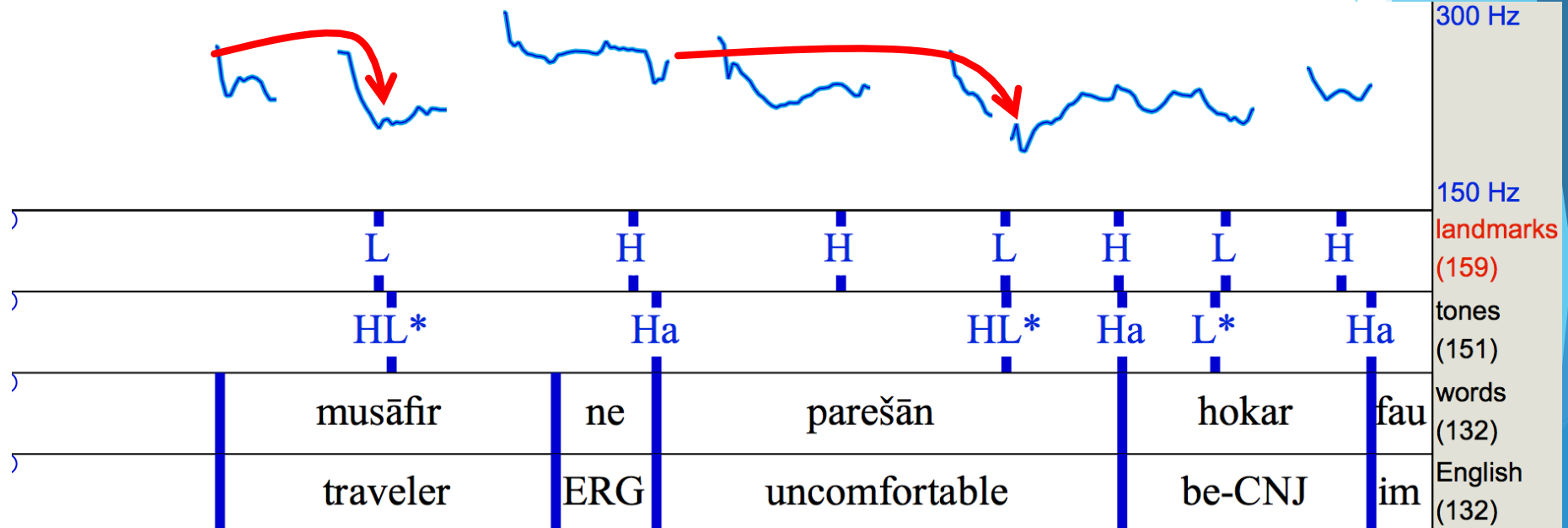


- ▶ jo is musāfir kī cādar utārne mẽ...
- ▶ 'The one who...in taking off the traveler's sheet...'



HL* in Urd

- ▶ **HL*** in **Urd** is clearest when in the initial AP

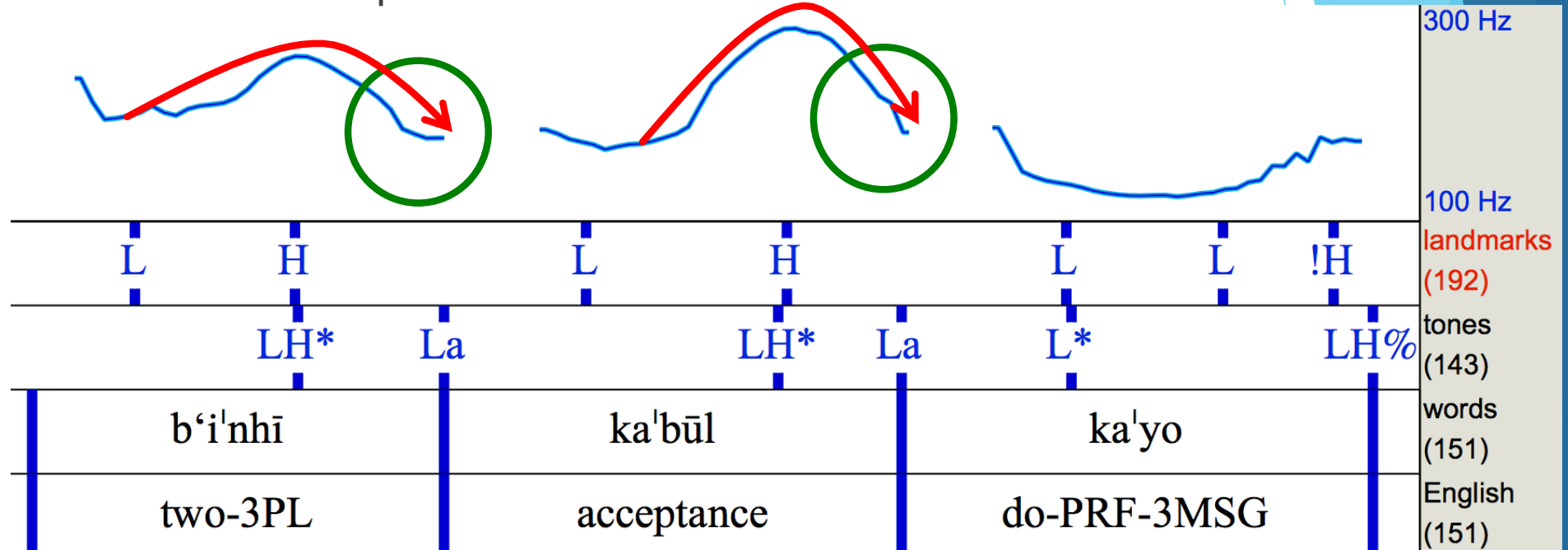


- ▶ musāfir ne parešān hokar...
- ▶ 'Having gotten uncomfortable, the traveler...'



LH*in Snd

▶ Two examples of **LH*** in **Snd**



▶ ...b'inhī kabūl kayo...

▶ '...the two of them accepted...'



Pitch accent types

SAL	L*H	L*	LH*	HL*	H*
Asm	5	70	0	0	1
Bng	15	47	1	0	2
Hnd	0	89	0	1	0
Kind	51	0	0	0	5
Mlm	21	33	0	0	2
Npl	9	54	5	0	5
Snd	23	7	38	1	2
Tlg	44	9	0	0	0
Tml	47	28	0	0	0
Urd	3	55	0	18	0

Favorite pitch accent

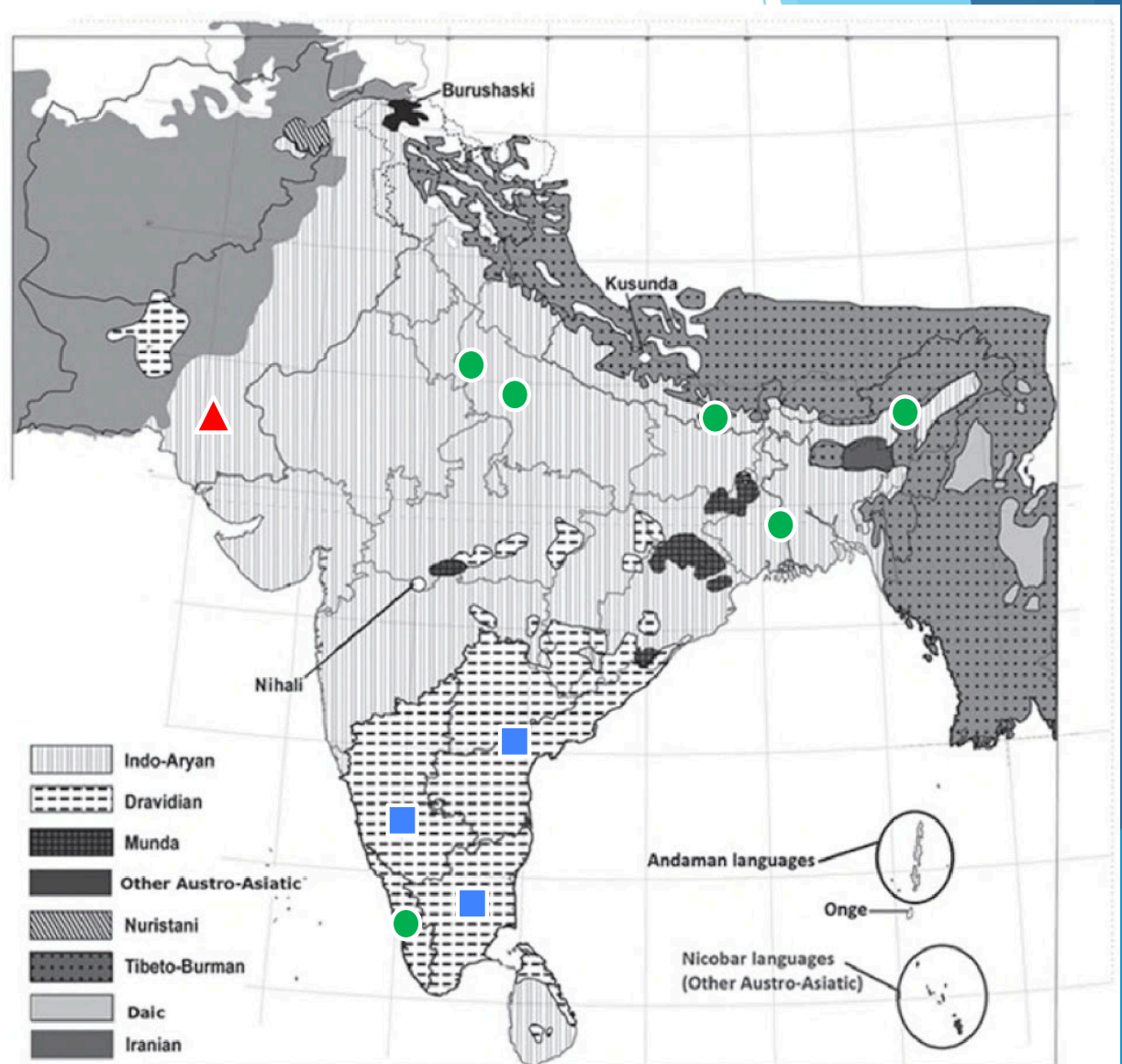
- ▶ Most prevalent pitch accent:

● L*

■ L*H

▲ LH*

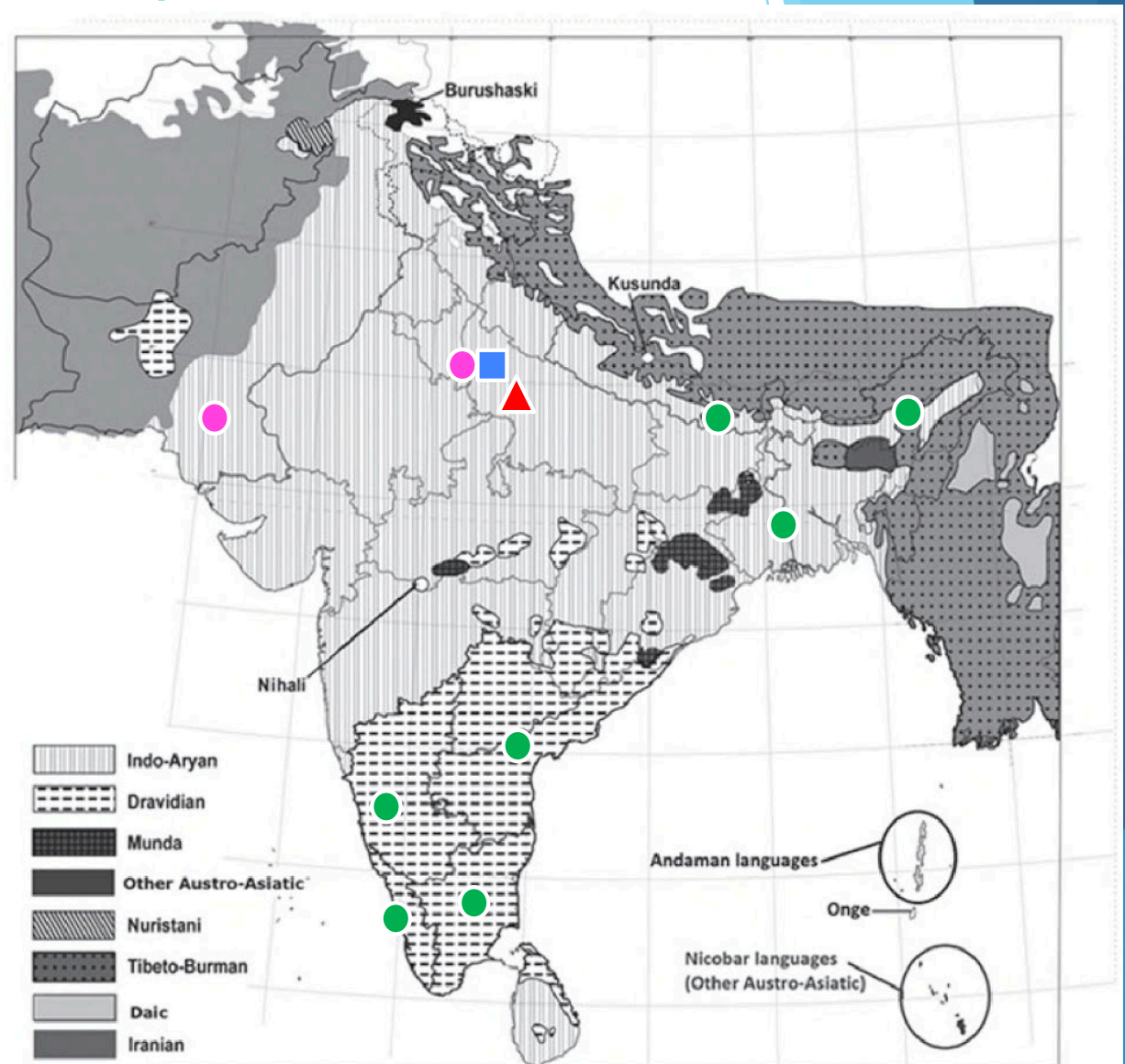
- ▶ Dr lgs -Mlm use **L*H** as a default
- ▶ IA lgs -Snd use **L*** as a default



South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Non-final H tone placement

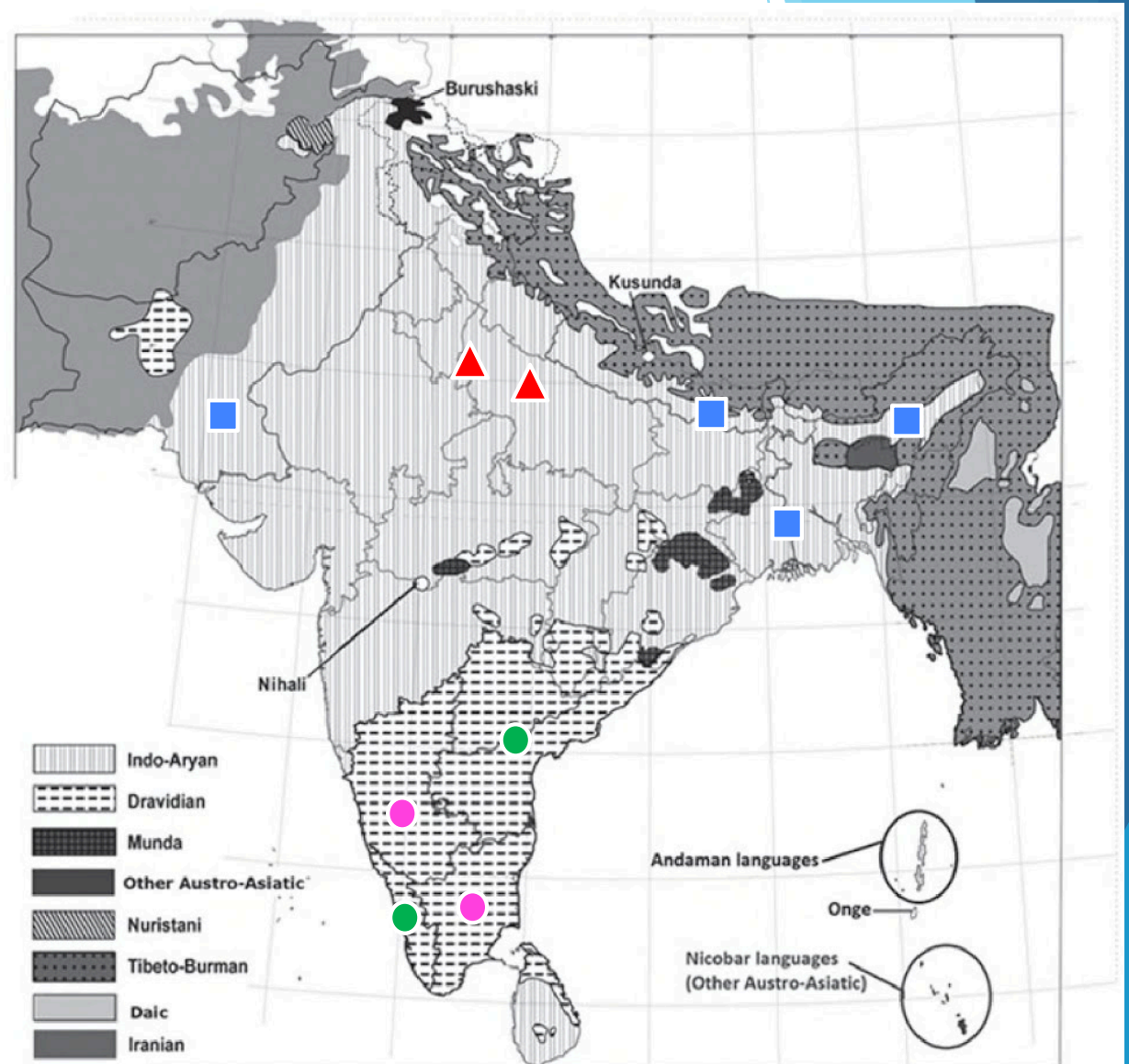
- ▶ Non-final H tone most typically:
 - Trails stress (L^*H)
 - Is on stress (LH^*)
 - Leads stress (HL^*)
 - ▲ Poorly attested
- ▶ Urd & Snd prefer H **on or before** the stress
- ▶ Dr & East IA prefer **post-tonic** H



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L*H peak alignment

- ▶ L*H peak typically reached in:
 - 3rd V mora
 - 2nd V mora
 - 2nd syllable
 - ▲ Poorly attested
- ▶ Ind lgs have **syll-**
based alignment
- ▶ Dr lgs have **mora-**
based alignment



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Points to discuss

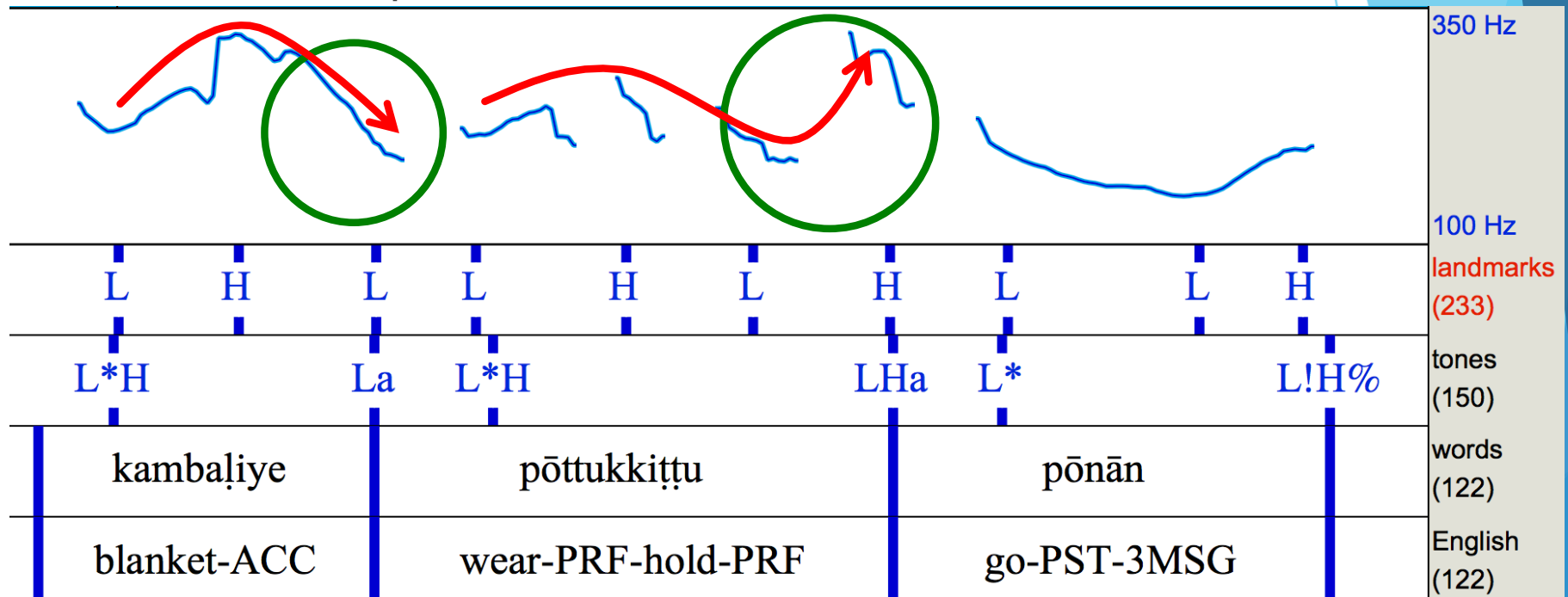
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AP-final H alignment

- ▶ We've established that some H tones in the AP might be part of the pitch accent
- ▶ But then what is the AP boundary tone?
- ▶ Despite its prevalence in the SAL literature, **Ha is hardly the only AP boundary tone**
- ▶ In some SALs, it is even less common that other boundary tones
 - ▶ **LHa**: low until AP-final syllable, then rise
 - ▶ **La**: fall until AP-final syllable, follows L*H
 - ▶ **HLa**: plateau until a long V, then fall

LHa and La in Tml

- ▶ One example each of **La** and **LHa** in **Tml**

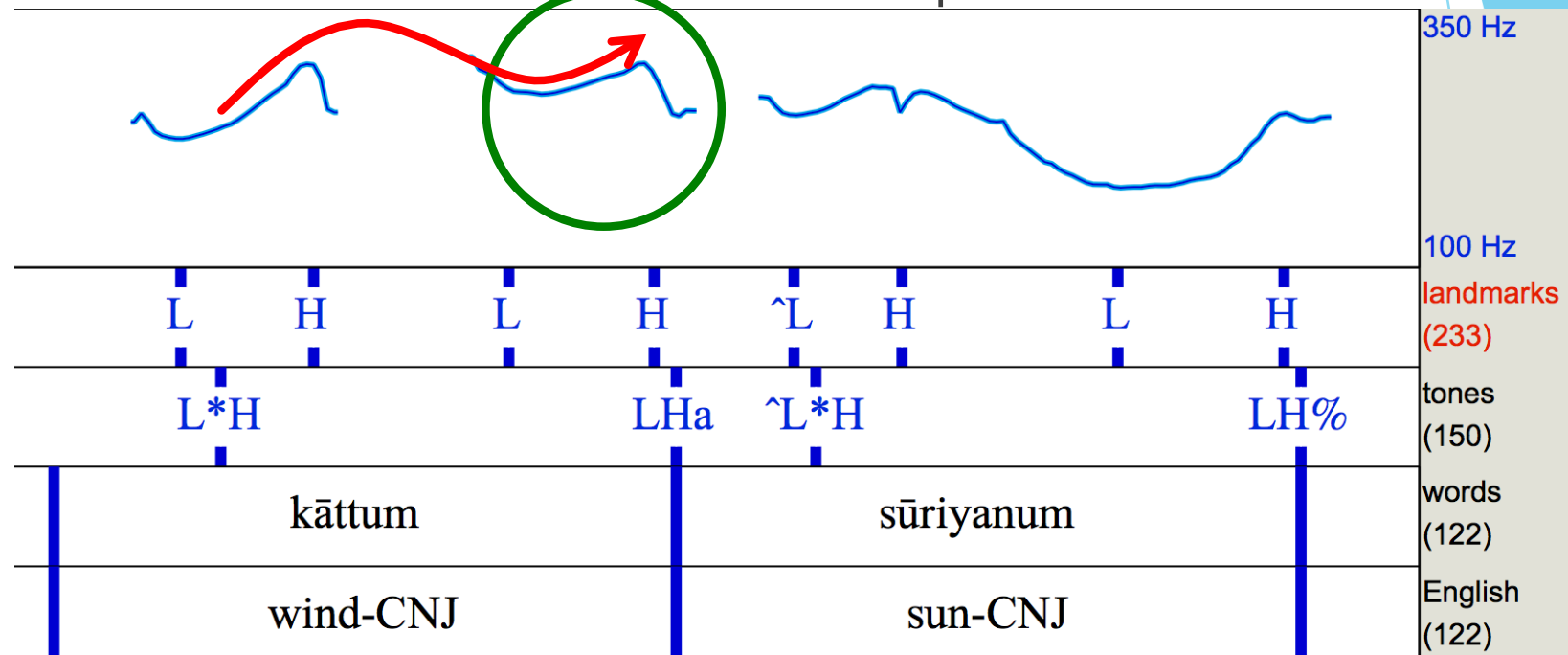


- ▶ ...kambaliye pōttukkiṭṭu pōnān
- ▶ '...was going (along) wearing a sheet'



LHa in Tml

- ▶ **LHa** is also seen on less complex words too

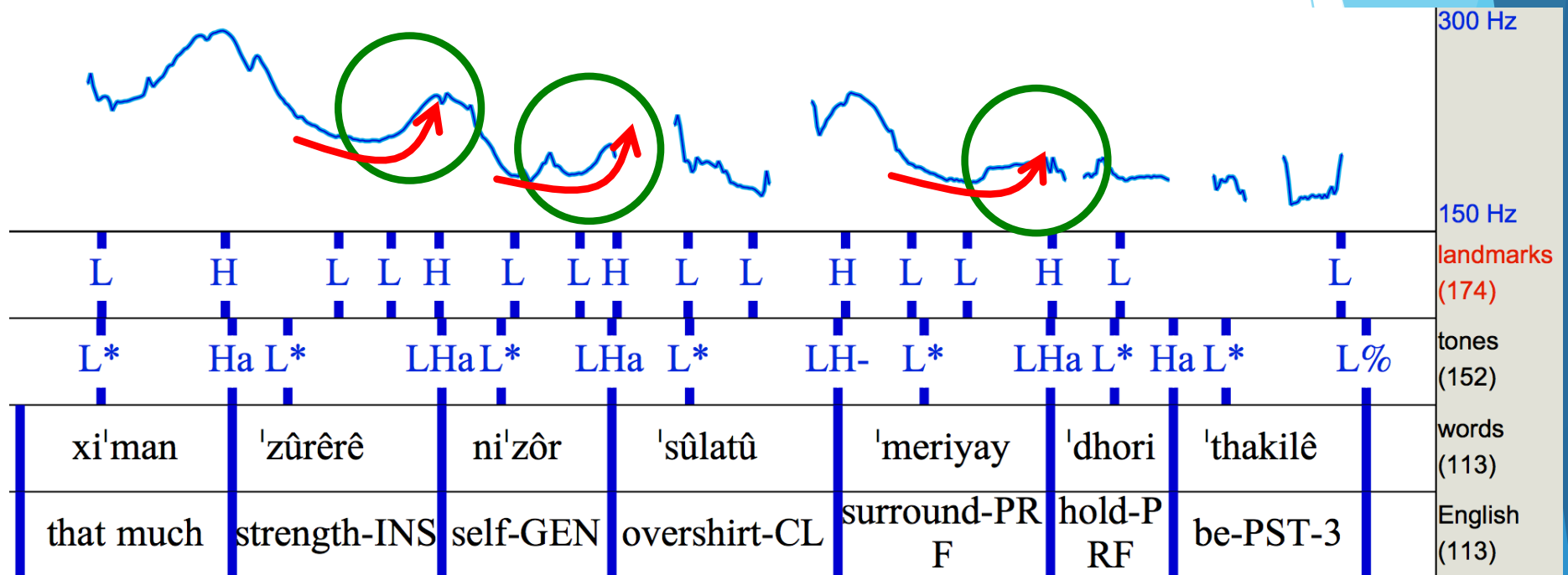


- ▶ kāttum sūriyanum...
- ▶ 'The North Wind and the Sun...'



LHa in Asm

- ▶ Two examples of **LHa** in **Asm** (note downtrend)

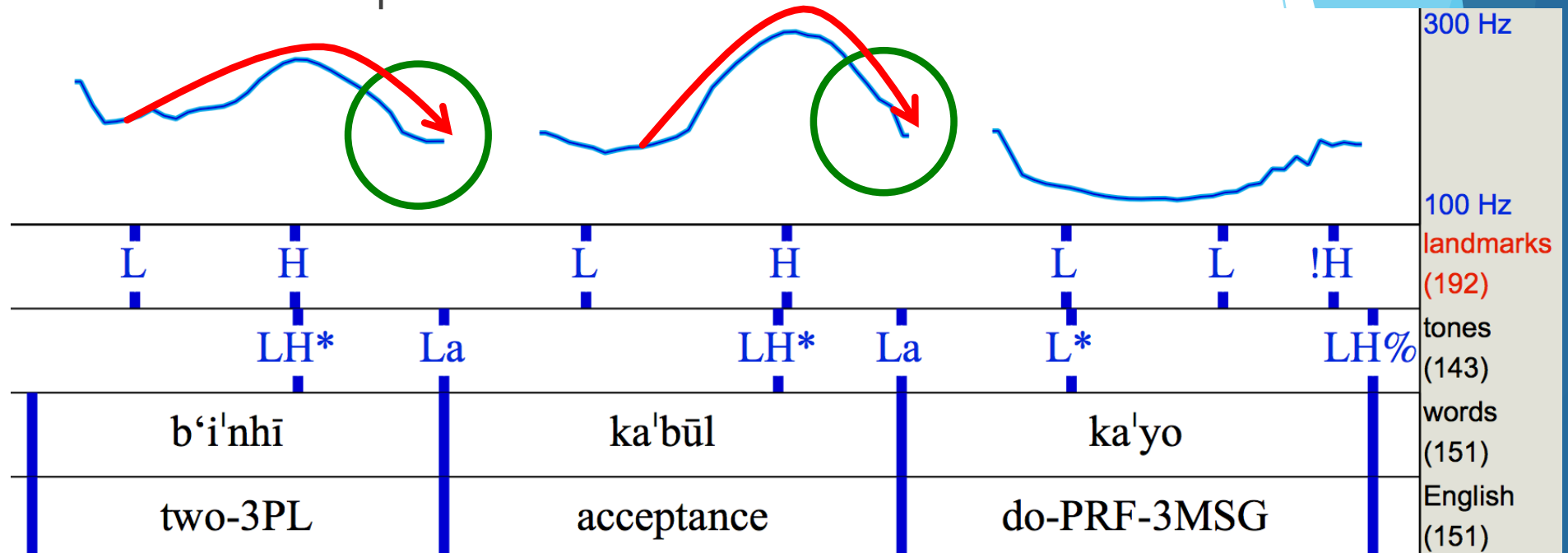


- ▶ ...xi'man 'zûrêrê ni'zôr 'sûlatû 'meriyay 'dhuri 'thakilê
- ▶ '...held the cloak around himself that much tighter'



La in Snd

▶ Two examples of **La** in **Snd**



▶ ...b'inhī kabūl kayo...

▶ '...the two of them accepted...'

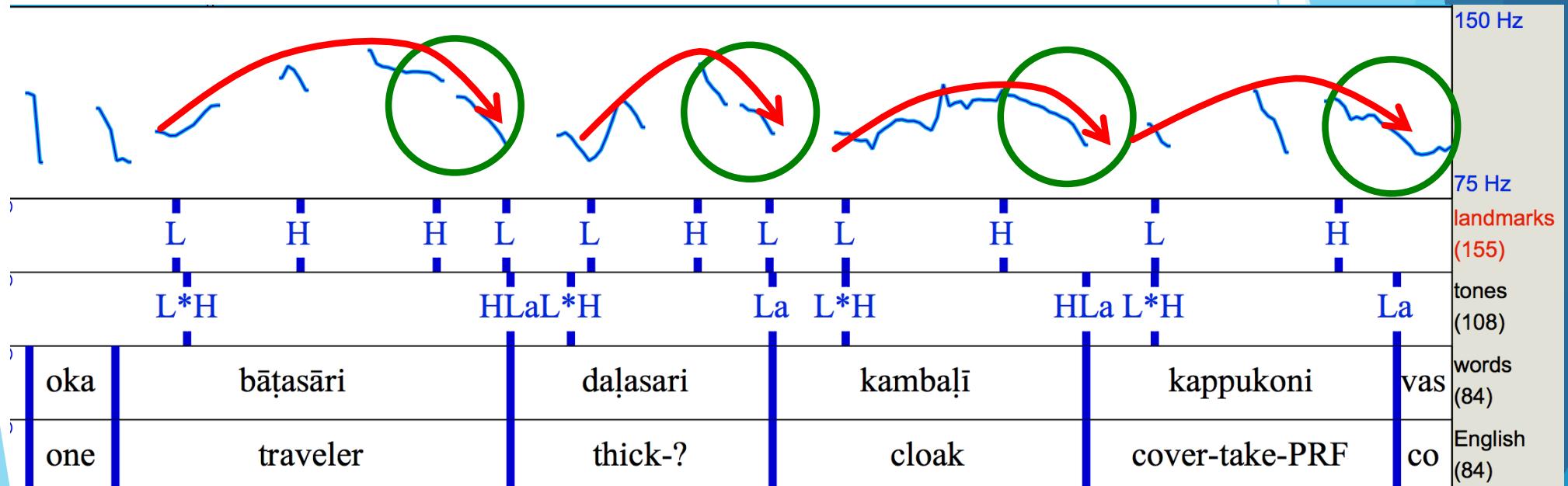


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HLa in Telugu

- ▶ Two examples each of **La** and **HLa** in **Tlg**

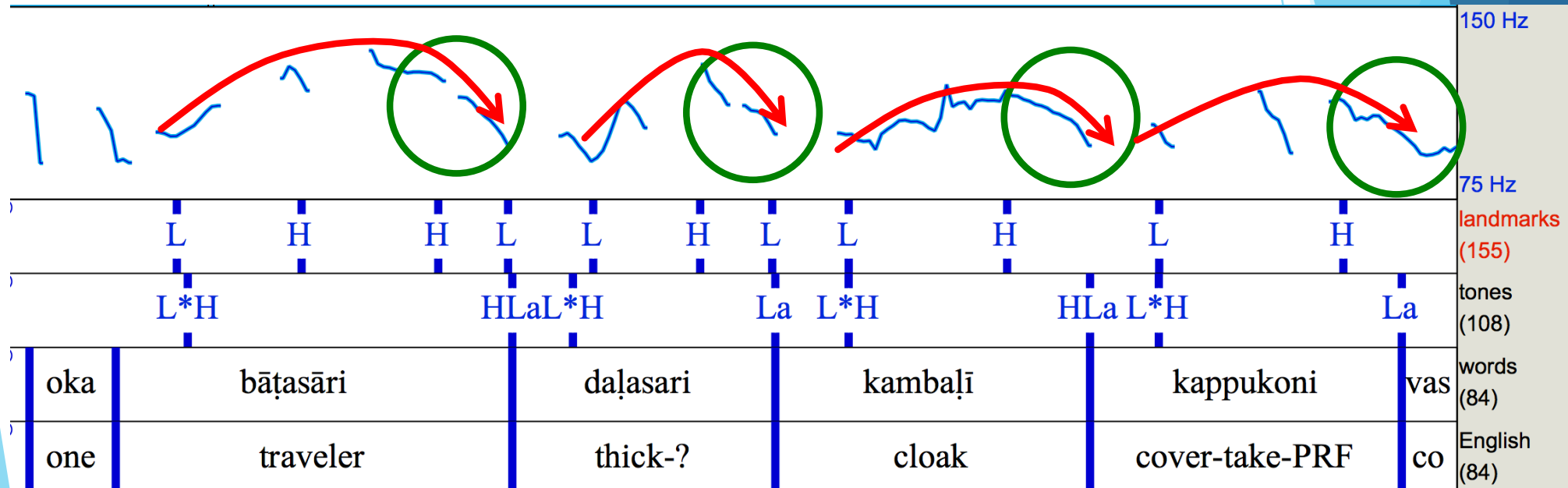


- ▶ oka bāṭasāri daḷasari kambalī kappukoni...
- ▶ 'A traveler wearing a heavy cloak...'



HLa in Telugu

- ▶ Is HLa a **variant of La**, attracted to **V length**?



- ▶ oka bāṭasāri daḷasari kambalī kappukoni...
- ▶ 'A traveler wearing a heavy cloak...'



AP boundary tone types

SAL	Ha	LHa	La	HLa	Total	% Ha
Asm	39	14	0	0	53	74%
Bng	35	0	6	0	41	85%
Hnd	68	0	0	0	68	100%
Knd	11	0	16	0	27	41%
Mlm	19	17	0	0	36	53%
Npl	40	1	3	0	44	91%
Snd	4	0	31	0	35	11%
Tlg	11	0	8	8	27	41%
Tml	24	4	6	0	34	71%
Urd	57	0	0	0	57	100%

Favorite non-Ha AP tone

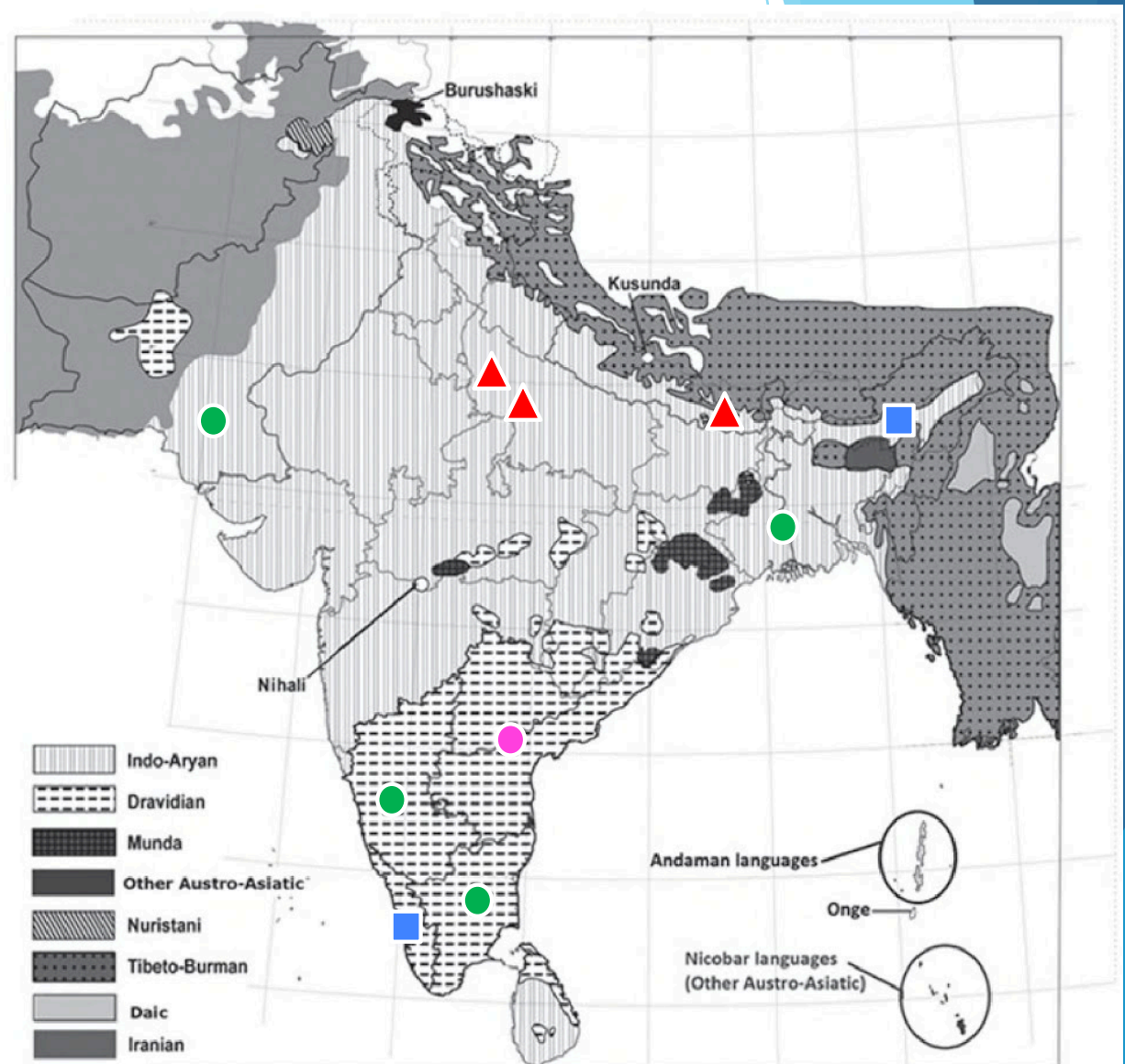
- ▶ Most prevalent AP boundary tone, besides Ha:

● La

● HLa & La

■ LHa

▲ No great option



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Prevalence of Ha

▶ % of APs with Ha:

● <15%

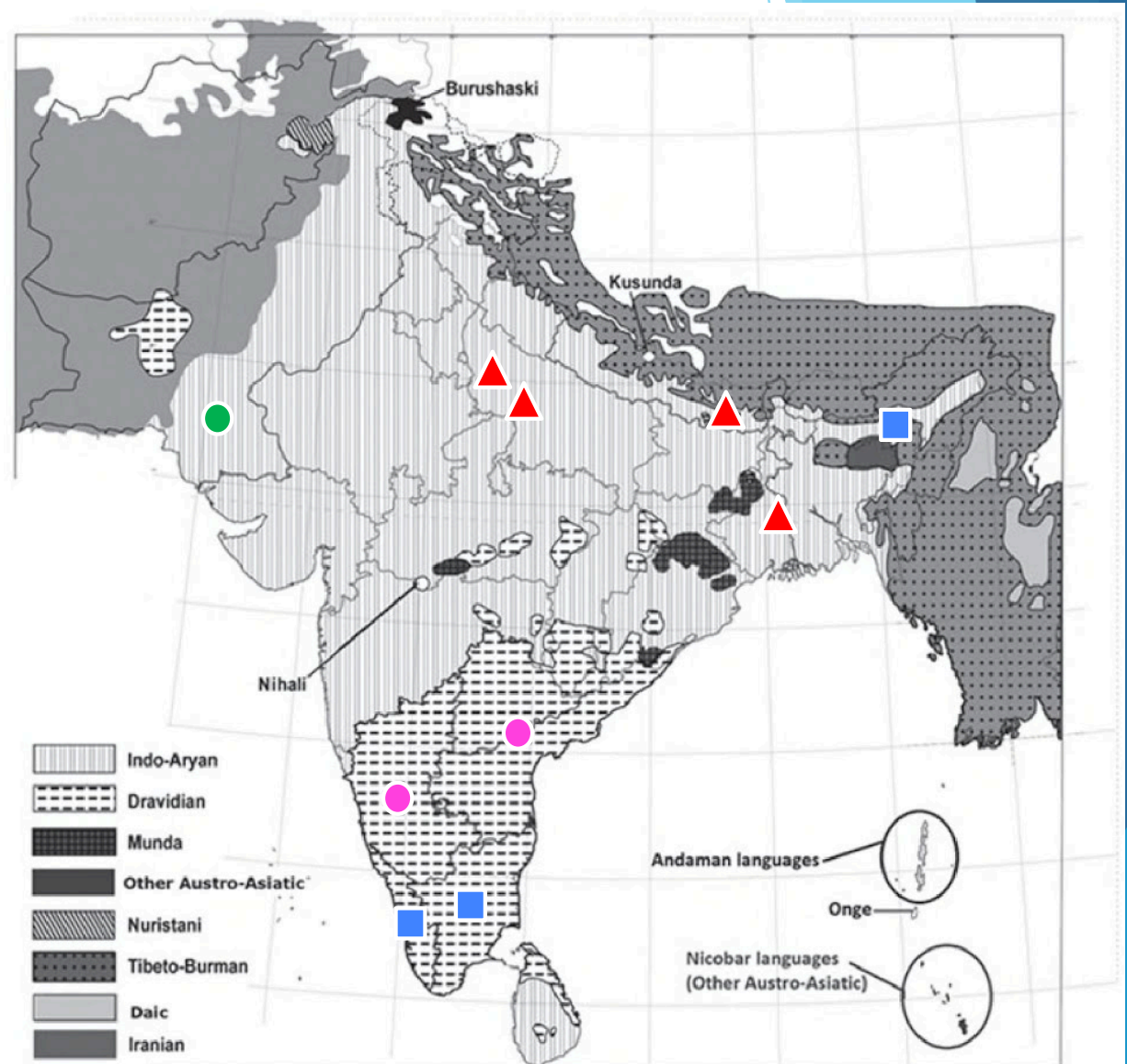
● 16-49%

■ 50-84%

▲ >85%

▶ **Most widely studied** systems are the ones **most likely to use Ha**

▶ Bias in how we've seen other SALs?



South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Alignment of H tones

- ▶ AP/PP's H target can be aligned to:
 - ▶ **Right boundary:** Ha, LHa
 - ▶ **Pitch accent:** L*H, LH*, HL*, H*
 - ▶ **Rightmost long vowel:** HLa [Tlg]
- ▶ Ha in Tlg acts like an AP boundary tone
 - ▶ Targets the **rightmost** long V in AP
 - ▶ Not seen when IP-final: **overridden by T%**
- ▶ **Tonal attraction to unaccented V length?**
 - ▶ Need to test **different lengths, # of long Vs**
 - ▶ Need to examine **other SALs** with V vs. V:

Points to discuss

- ▶ The main points of variation I cover here:
 - ▶ The attraction of **tones to accent** in Hnd Urd Snd
 - ▶ A larger **pitch accent inventory**
 - ▶ A larger **AP boundary tone inventory**
 - ▶ The attraction of **H tones to length** in Dr lgs
 - ▶ **Global features** distinguishing SALs in intonation

Global features

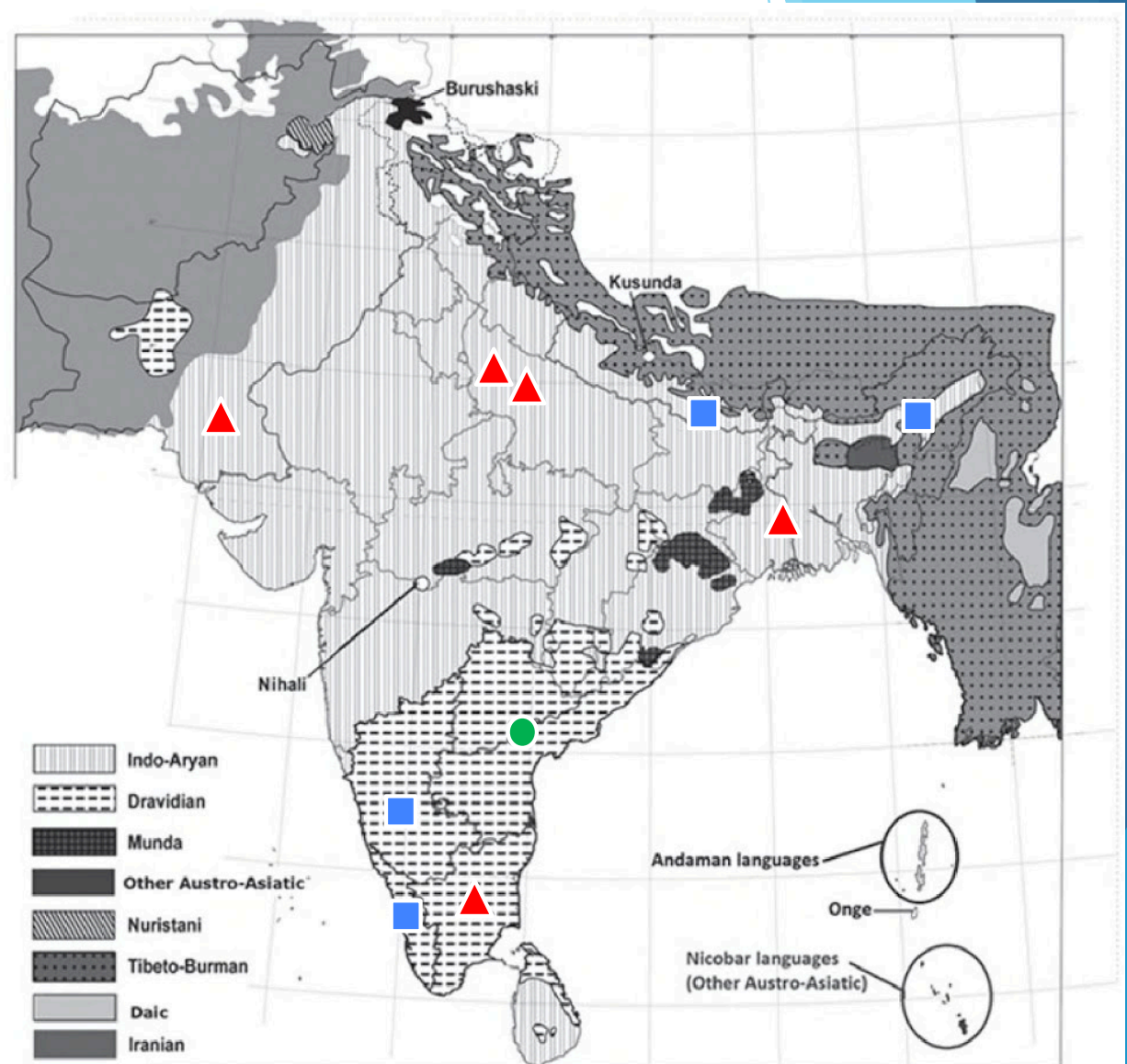
- ▶ How much of this variation across SALs just an artifact of the intonational phonological model we impose?
- ▶ Are there more **global differences** across SALs that could be (partially) independent of the tonal analysis we land on?
 - ▶ Density of pitch landmarks
 - ▶ Density of tones
 - ▶ Complexity of tones

Global measures

SAL	Sylls	LMs	Tones	Syl/LM	Syl/Tone	LM/Tone
Asm	229	174	152	1.3	1.5	1.1
Bng	197	163	134	1.2	1.5	1.2
Hnd	217	192	182	1.1	1.2	1.1
Knd	243	169	111	1.4	2.2	1.5
Mlm	232	168	114	1.4	2.0	1.4
Npl	247	172	160	1.4	1.5	1.1
Snd	221	192	143	1.2	1.5	1.3
Tlg	245	155	108	1.6	2.3	1.4
Tml	256	233	150	1.1	1.7	1.6
Urd	203	165	136	1.2	1.5	1.2

Syllables per pitch landmark

- ▶ Syllables/landmark
 - 2.00-2.50
 - 1.50-1.99
 - ▲ 1.00-1.49
- ▶ Hard to draw conclusions
- ▶ But note that Hnd, Bng, Tml have more landmarks than other SALs



South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Syllables per tone

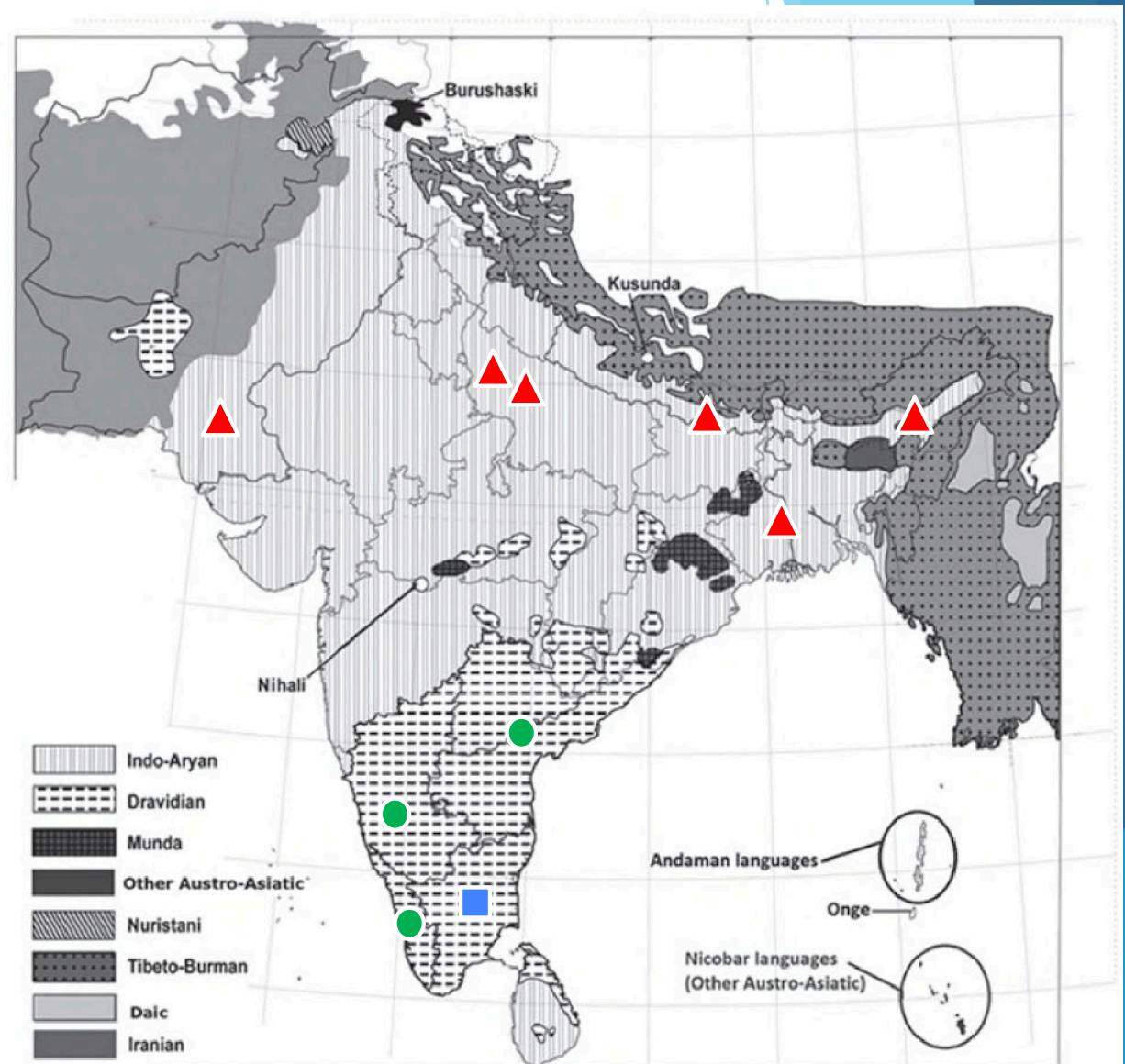
► Syllables/tone

● 2.00-2.40

■ 1.60-1.99

▲ 1.20-1.59

► In a given stretch of syllables, **IA lgs squeeze in more tones** than Dr lgs



South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Pitch landmarks per tone

- ▶ Landmarks/tone

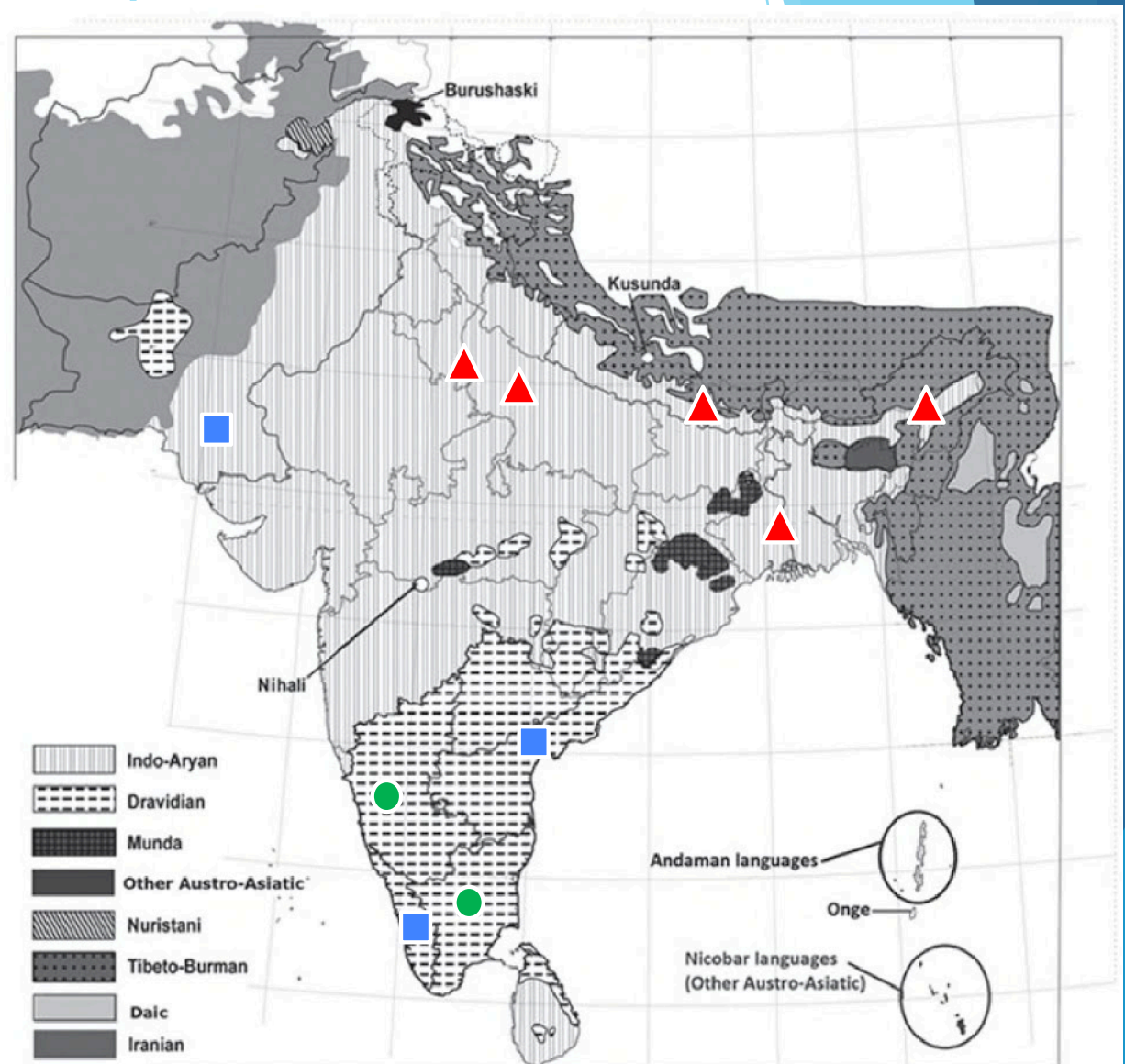
- 1.50-1.75

- 1.25-1.50

- ▲ 1.00-1.25

- ▶ **Dr lgs have more complex tones**

- ▶ **Snd** behaves like a **Dr lg**, despite its already **high tone density**



South Asian language families (map produced by Suresh Kolichala, 2015)
Base map taken from Hock (2016, p.7)

Returning to the question

- ▶ Going back to our original question
- ▶ Is there a “typical” SAL intonation?
- ▶ In some very basic ways, **yes**:
 - ▶ Prominence placement is **not contrastive**
 - ▶ Prominence not **marked with stress**
 - ▶ Lots of **rising contours**

Returning to the question

- ▶ Beyond that, we see substantial **differences within/across lgs**
 - ▶ **AP's L** might mark **L-edge** and/or **accent**
 - ▶ **AP's H** can aim for **R-edge** and/or **accent**
 - ▶ Basic IA pattern (not Snd): L*...Ha
 - ▶ Basic Dr pattern: L*H...(H)L(H)a
 - ▶ Lots of non-default patterns as well

Returning to the question

- ▶ More complex patterns in Dravidian?
 - ▶ Most tones in Dr lgs have **two targets**
 - ▶ Longer stretches of **toneless syllables** as well
 - ▶ **Vowel length** creates **H plateaus** in Tlg
 - ▶ **Word length** promotes **double H** in Tml

Returning to the question

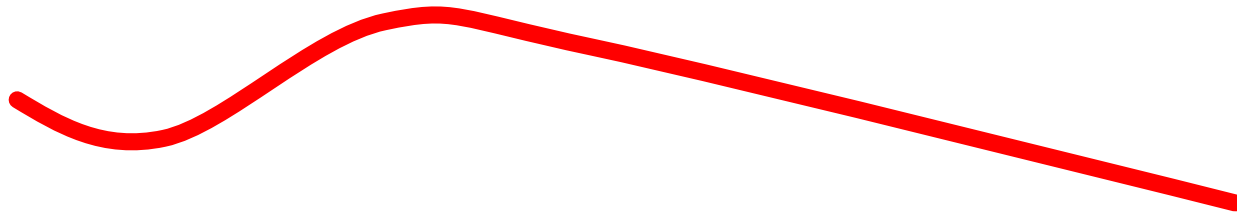
- ▶ Adding to our inventory
 - ▶ Pitch accents: L^* , **L^*H** , **LH^*** , **H^*** , **HL^***
 - ▶ AP boundary tones: Ha , **La** , **LHa** , **HLa**

Remaining questions

- ▶ Many questions remain:
 - ▶ What factors **block attraction** of pitch accents to **noninitial stress** in Hnd Urd Snd?
 - ▶ **How pervasive** is tone alignment to **V length** beyond Tlg?
 - ▶ How much variation would we find in other speech communities, tasks, etc.?
 - ▶ **How perceptible** are segmental effects on tone (L^* vs. $^{\wedge}L^*$)? Emergent contrast?
 - ▶ **Interaction** with lexical tone?

Acknowledgments

- ▶ To the authors who have shared their recordings with me, to the members of the prosody workshop and other of you working on SAL intonation, and to everyone in the audience here at SALA-34, **many thanks!**



^L*H

L%

ôšoňkho dhonnobad

অসংখ্য ধন্যবাদ!

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