

# InTraSAL: AN INTONATIONAL MODEL FOR SOUTH ASIAN LANGUAGES

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ICPHS SATELLITE WORKSHOP ON THE INTONATIONAL PHONOLOGY OF  
TYPOLOGICALLY RARE OR UNDERSTUDIED LANGUAGES, 4 AUGUST 2019

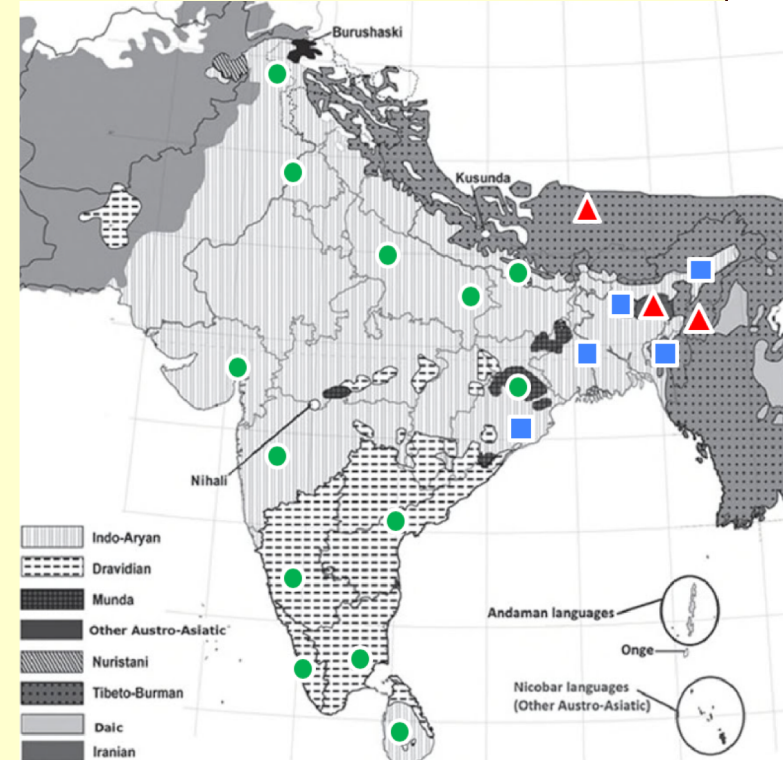
## QUESTION & BACKGROUND

- South Asia is called a “**linguistic area**” (E56)
- “Typical” South Asian lgs (SALs) have:

- Retroflexes
- Breathy-voiced Cs
- Echo words
- No infl prefixes
- SOV order
- Non-NOM experiencers

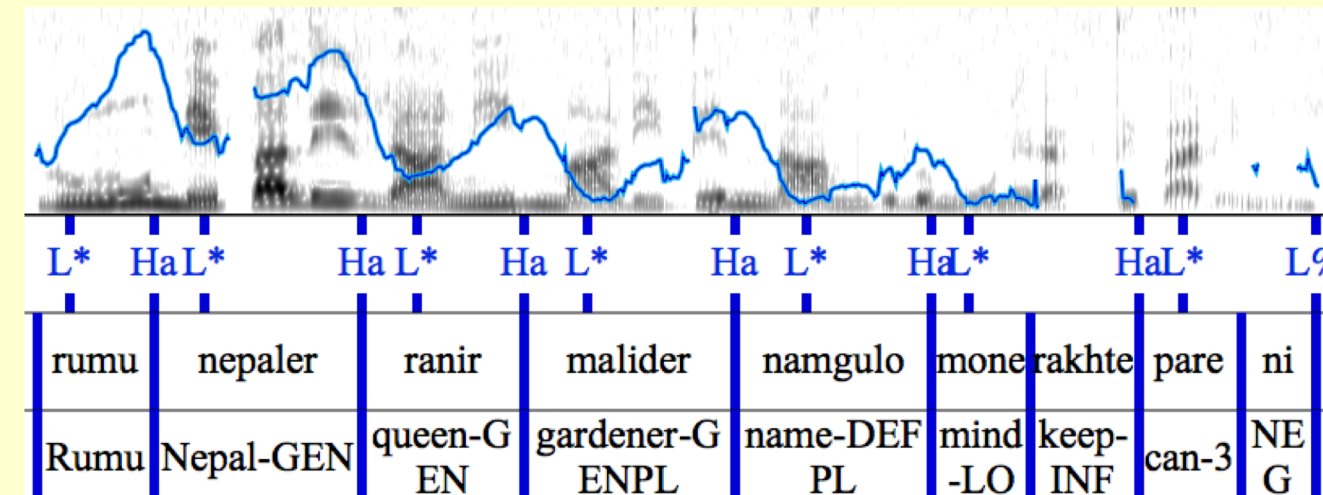
- But we find **exceptions** and **regional patterns** (S12)

- Case for experiencers:
- Typical SAL: DAT ●
- Typical non-SAL: NOM ▲
- Regional pattern: GEN ■



- What about intonation?
- Is there a “**typical**” SAL intonation?

- In fact Féry **proposes one model** for 4 SALs (F10)
  - Repetitive rising contours (RRCs) aligned to **phrase edges**
  - No effect of prominence (**no pitch accents**)



- But are there **exceptions / regional patterns**?

- **Goals:**
  - Propose **shared intonational transcription** for SALs
  - Highlight **variation** from the basic pattern
  - Search for **regional patterns**

## METHODS

- **Comparative work**

- Tests applicability of a single model on multiple SALs (F10)

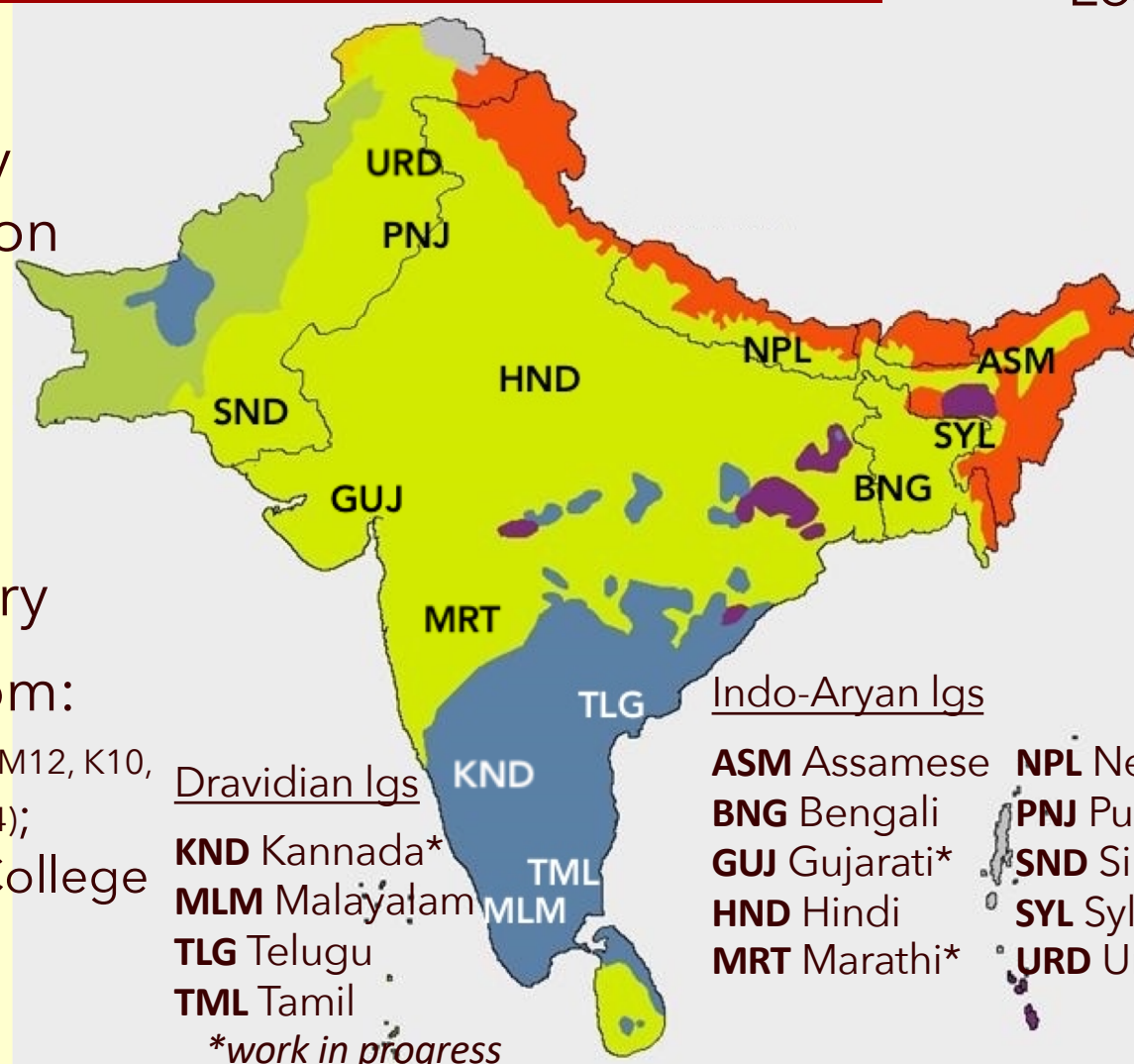
- Expands **B-ToBI conventions** (K08/K14)

- Adds new tier to help build inventory

- Recordings of/from:

- **North Wind** from JIPA (M12, K10, N99, NG16, BR16, O99, K09, K04);
- UCLA Archive; Reed College

- **Prosodic Typology II** (K14, K14; in J14)



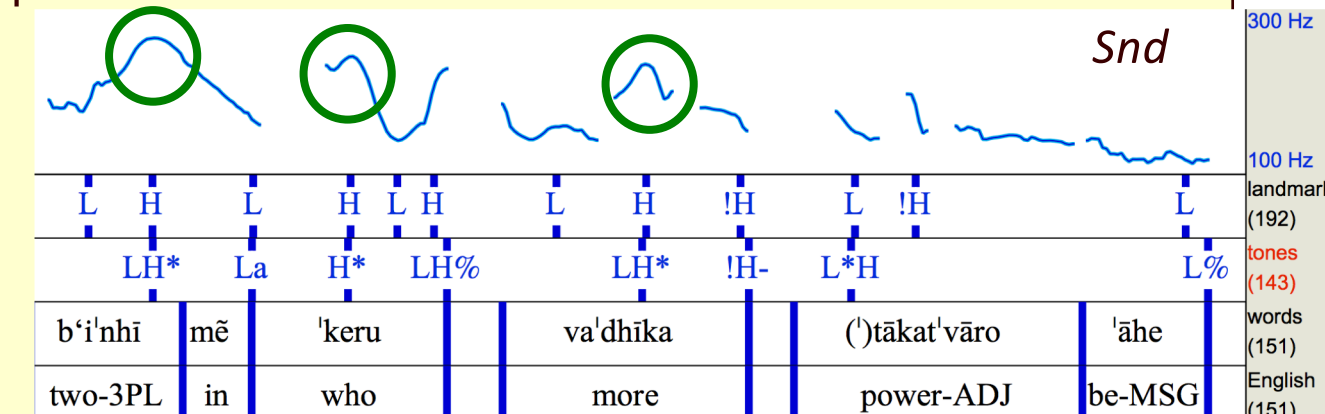
## INTRASAL TRANSCRIPTION METHOD

What you need:

- Recording of the utterance
- Pitch track
- **Landmarks tier**: salient L & H points
- **Words tier**: romanization & **stress**
- **English tier**: glosses
- **Lastly!** Tones tier (above Words)

Starting with the Landmarks Tier is crucial

- Speeds up transcription
- Mitigates unconscious shoe-horning in new lgs
- e.g. here we find that **H landmarks** in Snd line up with predicted **stress**



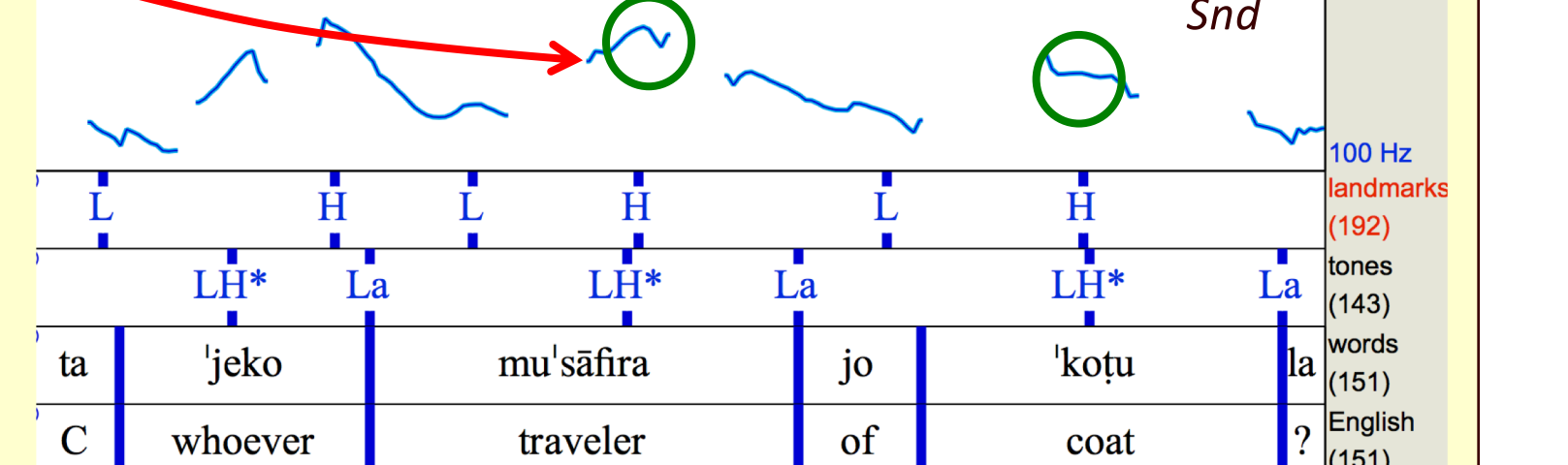
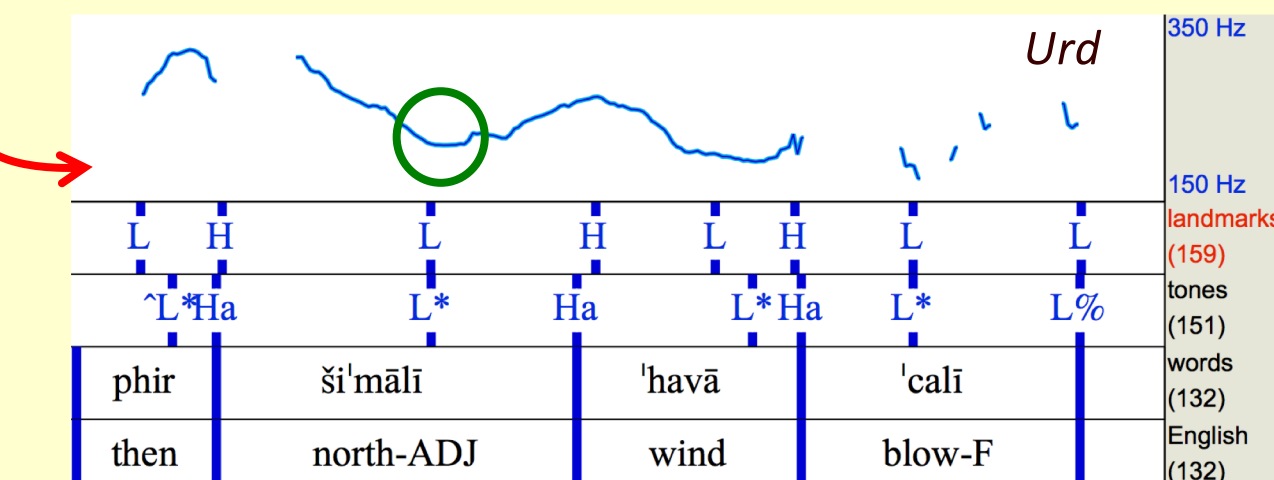
## EFFECTS OF STRESS

Typical SAL pattern

- **Initial L target**, marking stress (L\*)? Edge (aL / Lp)?
- **Ambiguous alignment** in SALs where stress is fixed initial

Regional subpattern: effects of stress

- **L target** can mark stressed  $\sigma$  & **not** L-edge in Urd, Hnd
- In Snd, it's the **H target** of the RRC that marks stressed  $\sigma$
- Sounds like these are **pitch accents**, contra Féry



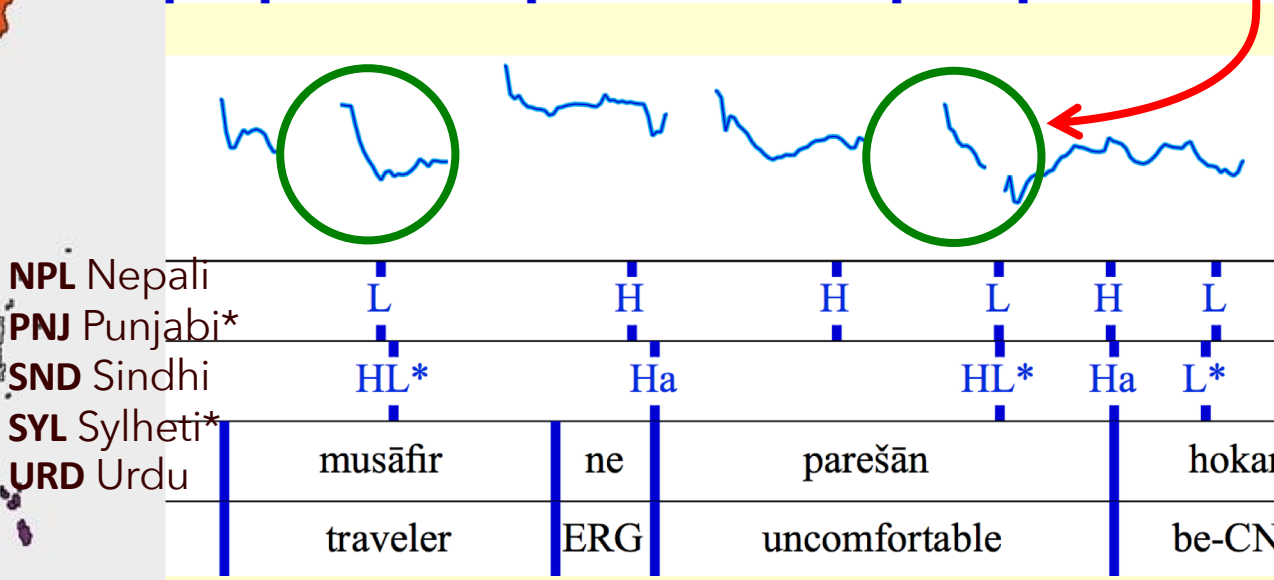
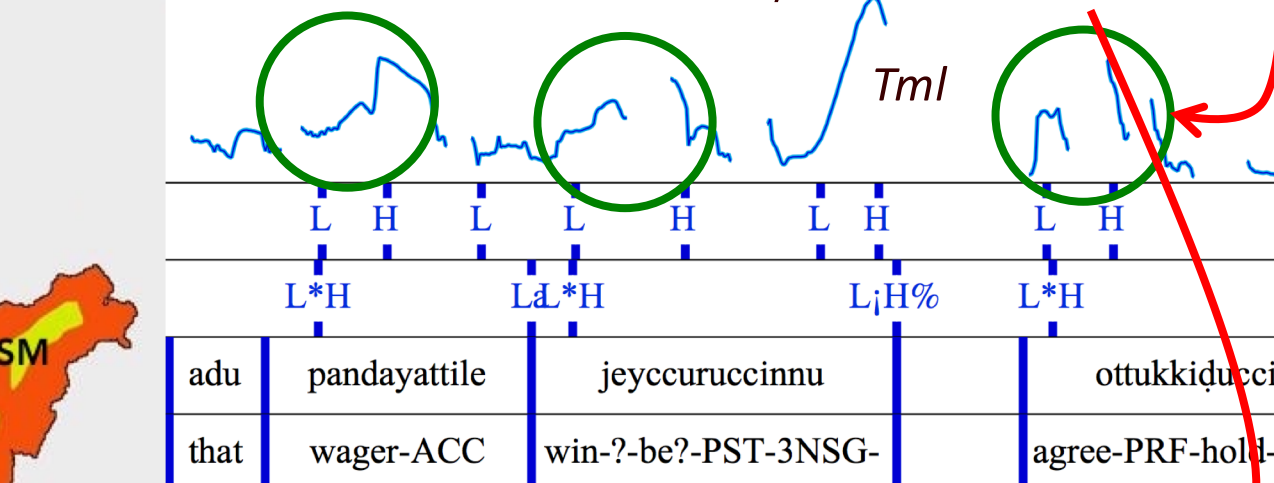
## NOT JUST SIMPLE RISE

Typical SAL pattern (or just typical Indo-Aryan?)

- Simple L\* on stress, **Ha** marks R-edge

Major subpatterns: complex pitch accents

- L\*H: H target appears on 2<sup>nd</sup>  $\sigma$  in many SALs
- Less common: LH\* in Snd, HL\* in Urd



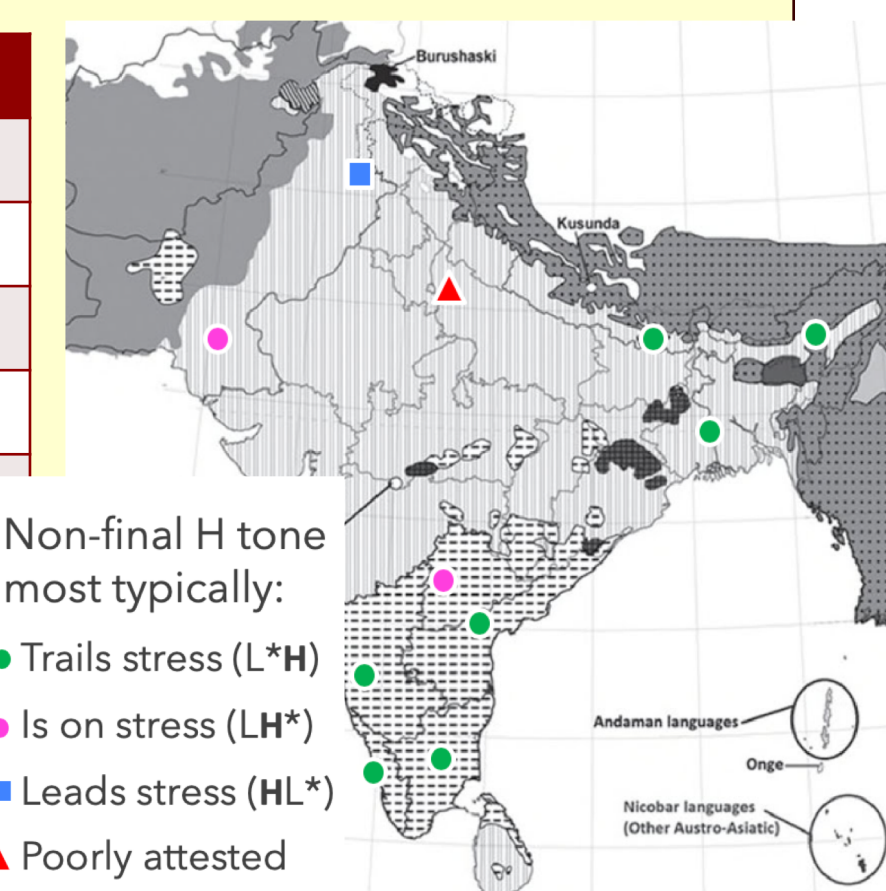
Regional patterns

- Most (3/4) Dravidian lgs. prefer L\*H over “typical” L\*
- H of pitch accent shifts earlier as one moves NW

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

Non-final H tone most typically:

- Trails stress (L\*H)
- Is on stress (LH\*)
- Leads stress (HL\*)
- Poorly attested

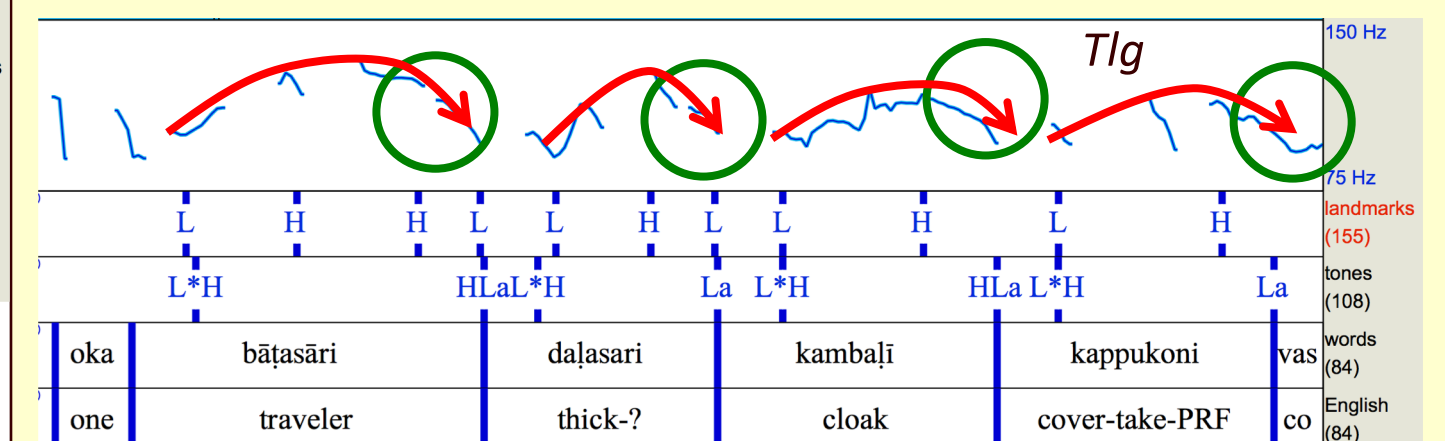


An aside

- H\*, prevalent elsewhere, is largely absent in SALs

## EFFECTS OF LENGTH

- Data suggests an **effect of V length** in Tlg
  - APs generally end in Ha (after L\*) or La (after L\*H)
  - La → HLa when a long V is near AP-R-edge
  - Added H attracted to V length?



## SUMMARY

- So... **is there a typical SAL intonation?**
- In some ways, **yes**:
  - RRCs based on sequences of L → H
  - One target is arguably sensitive to stress
- But there are **major systematic variations**:
  - Whether **stress** can attract T\* away from AP's L-edge
  - Whether the **H** aligns after, on, or before stress
  - Whether there are **2, 3, or 4 tones** in an AP
  - Whether **vowel length** plays a role
- Many of these patterns are **regional**
  - Simpler APs as one moves north and east
  - Earlier H alignment as one moves north and west

## FURTHER QUESTIONS

- How **variable** are these stress & length effects?
- How specific are these patterns to individual **people or styles**, rather than languages?
- Currently transcribing non-JIPA recordings of **more SALs**: Guj, Knd, Mrt
- Plan to compare with **SALs w/ lexical tone**: Pnj, Syl
  - At the moment: words in isolation
  - North Wind recordings to come

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