Verb height indeed determines prosodic phrasing:
evidence from Iron Ossetic

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In a nutshell

- We provide novel evidence in favor of flexible mapping between an **Intonational Phrase** (ι) and syntactic constituents, based on evidence from Iron Ossetic (East Iranian).

- ι is commonly assumed to map onto a **syntactic clause**, but a ‘clause’ has been variably defined: as a syntactic unit, a semantic/information-structural unit, etc.

- Hamlaoui & Szendrői (2015; 2017): ι is **flexible** and corresponds to the highest projection that hosts verbal material, together with its specifier (HVP, ‘highest verbal projection’/ ‘highest projection of the verb’).

⇒ A **prediction** that it makes is that ι-size is also determined by HVP in languages where the height of the verb varies with utterance type.
Flexible ι-mapping

- Hungarian: no Aux, V stays low in neutral clauses
- ι ↔ VP

- Italian/English wh-questions
- German: V2
- ι ↔ CP

(Szendrői 2017)
Iron Ossetic: basics

Highlights of grammar:
- East Iranian, spoken in North and South Ossetia
- SOV, but word order largely determined by information structure
- mostly left-branching/head-final
- rich morphology
- a system of aspectual prefixes
- second-position pronominal clitics
Iron Ossetic: basics

- Left-branching up to TP
- Finite verb assembled by head movement.
- Aspectual prefixes occupy Asp
- Subject generated in Spec,vP and moves to Spec, TP.
Discourse projections

If an utterance contains a **narrowly focused constituent**

**wh-phrase**

**negative indefinite**

they appear immediately preverbally.

If co-occurring,

*focus > wh-phrase(s) > negative indefinites(s).*

Preverbal constituent(s) = Spec, XP(s)

Verb = $X^0$ of the lowest discourse projection with a non-empty specifier

If a discourse projection is empty, it is not projected
Iron Ossetic prosody: basics

ι in Iron Ossetic consists of one or more φs

\[
H^* \quad | \quad \text{i} (φ( )φ φ( )φ φ( )φ)\text{i}
\]

only the initial φ of an ι carries a high pitch accent H*
Negative indefinites

\( \varphi(\text{abon})\varphi \ i(\varphi([\text{NegP} \ ni-tfi])\varphi \ \varphi([\text{NegP} \ ni-kem-vj])\varphi \ \varphi([\text{Neg’} \ a-l\ddot{a}d-i]))\varphi). \)

today \hspace{1cm} \text{NEG-who} \hspace{1cm} \text{NEG-who-ABL} \hspace{1cm} \text{PRV-run.away-PST.3SG}

‘Today no-one run away from anyone.’
Negative indefinites

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<tr>
<th>Today</th>
<th>no-one</th>
<th>from_no-one</th>
<th>ran_away</th>
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Pitch (Hz)

Scale:

- 0
- 75
- 150
- 225
- 300
- 375
- 450
Wh-questions

\[(21) \phi(\text{Abon})_{\phi} \phi(\text{indžan})_{\phi} \lambda(\phi([\text{WP saver wejgenaežo binojnag}])_{\phi}
\text{today cottage.cheese which seller’s spouse}
\phi([\text{WP' alženə}])_{\phi})?\]
buys
‘Which seller’s spouse buys cottage cheese today?’
Wh-questions

Today cottage_cheese which seller’s spouse buys
Narrow foci

(25)  (‘Who does no-one ever trust in your family?’)

\[ \phi(ne \; \chi_\text{ezar}_\text{e}) \phi \; \phi(\; \text{alan}_\text{e}) \phi \; \iota(\phi(ni_\text{t}i_\text{f})i) \phi \; \phi(\; ni_\text{k}^w_\text{e}) \phi \; \phi(\; \nu_\text{w}_\text{w}_\text{a}nd_\text{e}) \phi). \]

‘In our family, no-one ever trusts Alan.’
Narrow foci

Pitch (Hz)

Time (s)
More complex cases…

⇒ extras in the slides + supplementary handout (*a lot* more information there!)

To conclude:

- The **flexible t-mapping approach** successfully accounts for the properties of t-formation in Iron Ossetic.
- The Iron Ossetic facts provide **support** for the flexible t-mapping approach, which has not been tested on languages that have multiple projections available for verb raising, depending on context.

Thank you ~ Merci beaucoup ~ бузныг
**Wh-questions with negative indefinites**

(26) *madina*  *kemen*  *nikʷə*  *nisə*  *ra-zur-ə’*

Madina  who.DAT  never  nothing  PRV-tell-PRS.3SG

‘Who does Madina never tell anything?’

$\phi(\text{Wh})_\phi, (\phi(\text{Neg})_\phi, \phi(\text{V})_\phi)_i \quad \leftarrow \quad $ predicted by the flexible $t$-mapping hypothesis

$\iota(\iota(\phi(\text{Wh})_\phi, \phi(\text{Neg})_\phi, \phi(\text{V})_\phi)_i) \quad \leftarrow \quad $ actually attested
Wh-questions with negative indefinites
Multiple wh-questions

(31) \( \langle \text{'which cat' }\langle \text{'which street-ALL' }\langle \text{'never' }\langle \text{'run.PRS.3SG' }\rangle \text{'Which cat never runs along which street?'} \rangle \rangle \rangle \)

\( \varphi(\text{Wh}) \varphi(\text{Wh}) \varphi(\text{Neg}) \varphi(\text{V}) \) \quad \langle \text{predicted} \rangle

\( \varphi(\text{Wh}) \varphi(\text{Wh}) \varphi(\text{Neg}) \varphi(\text{V}) \) \quad \langle \text{attested} \rangle
Multiple wh-questions
**POST-%H DEPHRASING**

(30) **POST-%H DEPHRASING**

delete all initial ι-boundaries to the right of %H, other than those formed by %H (= no ‘ι(’ to the right of ‘ι(’).

**Evidence for %H:**

![Graphs showing mean pitch (Hz) vs syllable number for wh-phrases, stress window type, and negative indefinites.](image-url)
**Relevant OT constraints**

Following Hamlaoui & Szendrői (2015; 2017), we propose that the correspondence between ι and syntactic projections in Iron Ossetic adheres to the flexible ι-mapping principle, governed by the family of ALIGN-R/L(HVP, ι) constraints:

- the right and left edges of the HVP are mapped onto the corresponding edges of ι, respectively.

**Additionally:**

- the right and left edges of smaller constituents that do not include the clausal spine (e.g. DPs, PPs) are mapped onto the right and left edges of φ, respectively, by ALIGN-R/L(XP, φ);
- the edges of the full (‘illocutionary’) clause are mapped onto the respective edges of υ by ALIGN-R/L(CP, υ).