Raised and in-situ preverbal foci: a unified prosodic account

Immediately preverbal focus placement, common especially in V-final languages, has been shown to result from different syntactic configurations cross-linguistically. In this paper, we offer a unified account, based on the prosodic requirements of preverbal foci. We do so by bringing together two independent existing proposals, Focus-as-Alignment (Féry 2013) and flexible Intonational Phrase (*ι*)-mapping (Hamlaoui & Szendrői 2015) and applying the resulting analysis to a number of unrelated Eurasian languages.

Existing work. In many V-final languages, narrow foci appear immediately preverbally, preferentially or obligatorily (Kim 1988; Kidwai 1999, a.o.). Syntactically, focus-verb adjacency is derived (i) either via a functional Spec-Head configuration (=raised), or (ii) via displacement of intervening material (= in-situ). In (i), the focused constituent moves to a dedicated Spec, FP, and the verb raises to F^0, thereby creating adjacency (Hungarian: Bródy 1990; Malayalam: Jayaseelan 1996; Persian: Karimi 2008). Alignment of focus with nuclear stress, which targets Spec, FP, triggers movement (Hungarian: Szendrői 2003). In (ii), focus-verb adjacency results from the displacement of intervening material to the left or right periphery (Hindi: Mahajan 1990; Turkish: Şener 2010; Basque: Arregi 2002), motivated either by the information-structural properties of the displaced material (Şener 2010) or by the need for the focused constituent to carry nuclear stress (Arregi 2002). Whether (i) or (ii) is used in a given language can be determined based on e.g., scope facts, the position of the *focus+verb* string within the clause, and verb-inversion phenomena. The availability of two disparate derivations suggests that preverbal focus placement is not a grammatical primitive, but instead represents coincidentally identical outcomes of two different syntactic processes.

Analytical components. We offer a unified account of (i) and (ii), rooted in the prosodic requirements of narrow foci. Following Féry (2013), we assume that focused constituents align with *ι*-edges (Focus-as-Alignment=FA), modelled in a classic Optimality Theory (OT) analysis. Alignment is enforced via ALIGN-FOC-*ι*-R or ALIGN-FOC-*ι*-L constraint ("Align a focus with the right/left boundary of *ι*"). The need for *ι*-edge-alignment may trigger syntactic movement, which means that CANONICALWORDORDER (CWO; "Realize the canonical word order") is ranked below ALIGN-FOC-*ι*-R/L. Nuclear stress, in languages that have it, in FA is also aligned with an *ι*-edge. This is enforced by H-*ι*-R or H-*ι*-L ("Align the right/left boundary of *ι* with its head"), which may lead to an *ι*-edge-aligned focus being prosodically prominent. Note that *ι*-edge-alignment of foci in FA is distinct from and more important than alignment with nuclear stress (contrary to the traditional assumption about focus-prominence association; Jackendoff 1972; Reinhart 1995, a.o.), which accounts for languages in which foci are not associated with nuclear prominence (e.g., Nłeʔkepmxcin: Koch 2008). FA alone, however, is not equipped (nor meant) to account for immediately preverbal focus placement in languages that require it: first, because it needs additional assumptions about the syntactic XP that *ι* corresponds to (commonly taken to be a 'clause', but subject to different interpretations: CP, Truckenbrodt 2005; TP, Zerbian 2006; phase, Cheng & Downing 2007); second, because it offers no account of the requirement for focus-verb adjacency. Both desiderata are satisfied if FA is complemented by the flexible *ι*-mapping hypothesis (Hamlaoui & Szendrői 2015). According to it, the size of *ι* is flexible and corresponds to the highest projection that hosts overt verbal material (the verb, verbal inflection, an auxiliary, or a question particle), including its specifier (=HVP). The alignment is enforced by ALIGNHVP-L and ALIGNHVP-R constraints ("Align the left/right edge of the HVP with the left/right edge of an *ι*").

Raised preverbal foci. Raised preverbal foci are housed in the specifier of FP, which also attracts the raised verb and determines the syntactic height of the left *ι*-edge via ALIGNHVP-L. More specifically, verb movement creates the left *ι*-edge that the focused constituent raises to align with, via ALIGN-FOC-*ι*-L. If applicable, the focused constituent is made prosodically prominent by H-*ι*-L. We show that this analysis accounts for immediately preverbal focus

placement not only in Hungarian (Uralic), but also in Iron Ossetic (Iranian), and Eastern Armenian (Armenian). Different factors diagnose preverbal foci as raised in these languages. In Hungarian, the *focus+verb* complex is raised above clausal negation and the otherwise preverbal detachable verbal particle (Bródy 1990, É. Kiss 1998), (1a). In Iron Ossetic, focus movement, accompanied by verb movement, becomes apparent in more complex contexts that also involve wh- and neg-phrases: the strict word order *focus+wh+neg+verb*, which cannot be interrupted by other constituents, suggests that foci (as well as wh- and neg-phrases) come to occupy their surface positions via movement (Borise & Erschler 2021). We extrapolate that the same applies to simple foci; Iron Ossetic focus placement, then, has a structure like that in (1a). Finally, in Eastern Armenian, focus movement is apparent from copula inversion: the default *participle+copula* order is inverted to *focus+copula+*(<…>)*+participle* in the context of narrow focus, (1b). In all these languages, ALIGN-FOC-*ι*-L, ALIGNHVP-L/R, and H-*ι*-L are unranked with respect to each other and outrank CWO.

(1) a. [$_{\text{TopP}}$ *Péter* **ι(**[$_{\text{FocP}}$ ***MARI-T***$_{\text{j}}$ ***szerette***$_{\text{i}}$ [$_{\text{PredP}}$ *meg* [$_{\text{VP}}$ t$_{\text{j}}$ t$_{\text{i}}$]]]]**)ι**
Peter Mary-ACC love.PST PRT
'Peter fell in love with MARY$_{\text{F}}$.'

b. **(**[$_{\text{FocP}}$ ***BANVORNERĚN***$_{\text{j}}$ ***en***$_{\text{i}}$ [$_{\text{TP}}$ t$_{\text{j}}$ *t'atroni bemě sksel* t$_{\text{i}}$ *k'andel*]]**)ι.**
worker.PL.DEF.LNK COP.3PL theater.DAT stage.DEF begin.PTCP destroy.INF
'THE WORKERS$_{\text{F}}$ began destroying the theater stage.'

In-situ preverbal foci. In-situ preverbal foci do not raise to a functional A-bar projection; the verb does not undergo focus-related movement either; the HVP still corresponds to *ι* (ALIGNHVP-L/R). The material intervening between the focus and the verb is displaced, to bring the focused constituent as close as possible to satisfying ALIGN-FOC-*ι*-R. The position of the post-focal verb means that the winning candidate still violates ALIGN-FOC-*ι*-R, but the alternative, with *ι*-edge-adjacent focus, may be excluded by the fact that a post-verbal focus, adjoined on the right, would be mapped to a position *outside* the core *ι*, in stark violation of ALIGN-FOC-*ι*-R. H-*ι*-R ensures that in-situ preverbal focus is prosodically prominent, if applicable (the verb is rendered 'invisible' for accent placement, e.g., by high-ranked STRESS-XP, which ensures that XPs but not X^0s carry stress, Truckenbrodt 2006). Languages of this type include Turkish and wider Turkic, and Georgian (Kartvelian). To illustrate with Turkish, there is agreement in the literature that preverbal foci do not raise to a functional projection; postverbal foci are prohibited (Göksel & Özsoy 2000; Şener 2010, a.o.); any postverbal material results from displacement (Öztürk 2013) and is outside of the core *ι* (Özge & Bozsahin 2010), as in (2). We derive the Turkish facts via ALIGN-FOC-*ι*-R, ALIGNHVP-L/R, and H-*ι*-R being unranked with respect to each other and outranking CWO; STRESS-XP outranks H-*ι*-R.

(2) [$_{\text{CP}}$ **(**[$_{\text{AspP}}$ *Ali* ***SABAH*** ***bırakt***ı])**ι** *kitabı* *buraya*].
Ali morning put.PST book.ACC here
'Ali left the book here IN THE MORNING$_{\text{F}}$.' (İşsever 2003)

Other Turkic languages (Uyghur, Kazakh), we show, pattern with Turkish. Georgian contrasts with Turkic in (a) also allowing for post-verbal foci, derived by short V-movement, and (b) lacking nuclear stress, reflected in low-ranked H-*ι*-R; otherwise, the same constraints apply.

Conclusion & implications. Uniting FA and HVP allows for a unified account of syntactically disparate preverbal foci: raised ones are aligned with the left *ι*-edge, and in-situ ones with the right *ι*-edge. In the full paper, we also account for variable focus placement in some V-final languages – e.g., Dargwa (Dagestanian) – via resolution of tied ALIGN-FOC-*ι*-R/L constraints.

Selected references. Féry, C. 2013. Focus as prosodic alignment. *NLLT* 31(3). 683–734. Hamlaoui, F. & K. Szendrői. 2015. A flexible approach to the syntax-phonology mapping of intonational phrases. *Phonology* 32(1). 79–110. Truckenbrodt, H. 2006. Phrasal Stress. In *The Encyclopaedia of Languages and Linguistics*. Brown, Keith (ed.), Elsevier. 572-579.