Focus and the Syntax-Phonology Interface: A Flexible Approach

Fatima Hamlaoui
University of Toronto, French

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This paper is based on a long-standing collaboration with Kriszta Szendrői.

With Emelyne, one of our Kinyarwanda informants, in Kigali, Rwanda.
Outline of the talk

1. The Role of Prosody?
2. Some Background
3. Focus Left but not Right
4. Focus After the Verb
5. Conclusion
2. What, if any, is the role of prosody in terms of licensing, restraining or ordering constituents in the Left Periphery, and how does prosody fit into the division of labour between [syntax and pragmatics/semantics]?
A focus constituent must realize the highest level of prominence, i.e. the head of the Intonational Phrase ($\iota$). (Reinhart 1995, 2006)

The amount of freedom in the syntactic location of focus is correlated with the amount of prosodic plasticity in locating the $\iota$ head. (Lambrecht 1994)

In these languages in which there is little prosodic plasticity, prosody can motivate the syntactic location of focus. (Szendrői 2001, 2003; Samek-Lodovici 2005; Hamlaoui 2009)
A focus constituent must be located the domain in which maximal sentence prominence (the head of \( \iota \)) can be assigned. How does that translate for the syntax of focus?

Prediction of Hamlaoui & Szendrői (2015, 2017): Unless prosodic constraints apply that result in a mismatch between Syntactic and Phonological structure, the focus of a clause will be located in the lowest segment of the highest projection that hosts the overt verb or verbal material (HVP).

Prosody thus constrains the syntactic location of focus.
Jackendoff’s parallel architecture of grammar (Figure M. Irvine)

- Modules manipulate their own atomic units and rules and interact via (“translating”) interfaces.
- Phonological structures and Syntactic structures are mapped onto each other.
- Direct PF-LF correspondence is allowed.
Mapping Intonation Phrases

Syntax-Prosody/Prosody-Syntax Mapping
(Selkirk 1978, Nespor & Vogel 1986, subseq):

- Syntactic clauses \( \iff \) Intonation Phrases (\( \iota \))
- Syntactic Phrases \( \iff \) Phonological Phrases (\( \phi \))
- Syntactic words \( \iff \) Prosodic Word (\( \omega \))

- where \( \iota > \phi > \omega \)
How to define the notion of clause that is relevant for the mapping of $\nu$s?

Various proposals have been made, depending on particular languages/types of sentences:

- **CP** (Truckenbrodt 2005, Henderson 2012)
- **TP** (Zerbian 2006)
- **vP/CP** (Cheng & Downing 2009, Downing 2011)
- **Comp of Force$^0$ & Comp of C$^0$** (Selkirk 2009, 2011)
Mapping Intonation Phrases

Syntax-prosody correspondences on the ‘clause’-level
(Hamlaoui & Szendrői 2015, 2017)

a. ALIGN-L(HVP, $\iota$)
Align the left edge of the highest projection whose head is overtly filled by the root verb, or verbal material with the left edge of an $\iota$.

b. ALIGN-R(HVP, $\iota$)
Align the right edge of the highest projection whose head is overtly filled by the root verb, or verbal material with the right edge of an $\iota$.

→ Root-clauses preferably come with their own $\iota$ edges.
Prosody-syntax correspondence on the intonation phrase level
(Hamlouai & Szendrői 2015, 2017)

a. **ALIGN-L** ($\iota$, HVP)
   Align the left edge of an $\iota$ with the left edge of the highest projection whose head is overtly filled by the verb or verbal material.

b. **ALIGN-R** ($\iota$, HVP)
   Align the right edge of an $\iota$ with the right edge of the highest projection whose head is overtly filled by the verb or verbal material.

$\iota$ edges preferably correspond to clausal edges.
The position of the verb matters to determine the syntactic constituent that serves as a basis to derive Intonational phrases.

There is an asymmetry between Syntax-to-Prosody and Prosody-to-Syntax, from which it falls out that all clauses do not form their own Intonational Phrase.

The ‘clause’ is characterized in a purely structural and cross-categorial way, just like the other syntactic constituents that are mapped onto prosodic constituents.
“Flexible” Mapping of Intonation Phrases

1. The position of the verb matters

Diagram:
- CP
- C
- TP
- T
- VP
- V

\( \tau = \text{Speech act} \)
\( \tau = \text{HVP} \)

Verb

Fatima Hamlaoui (University of Toronto)
A Flexible Approach to Focus
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“Flexible” Mapping of Intonation Phrases

1. The position of the verb matters
“Flexible” Mapping of Intonation Phrases

1. The position of the verb matters

Diagram:

- CP
  - C
    - verb
  - TP
    - T
    - VP
    - V

\( l \) = Speech act

\( l \) = HVP
2. Not all clauses form their own Intonational Phrase

(1) Parker loves wet food.
(2) Everyone knows that Parker loves wet food.
2. Not all clauses form their own Intonational Phrase

(1) [Parker loves wet food.]

(2) [Everyone knows that Parker loves wet food.]

(2)′ [Everyone knows *[that *[Parker loves wet food.]]]]
Syntax-Prosody/Prosody-Syntax Mapping:

- Syntactic clauses $\iff$ Intonation Phrases ($\iota$)
- Syntactic Phrases $\iff$ Phonological Phrases ($\phi$)
- Syntactic words $\iff$ Prosodic Word ($\omega$)
“Flexible” Mapping of Intonation Phrases

3. A cross-categorial characterization of clauses

Syntax-Prosody/Prosody-Syntax Mapping:

- Syntactic clauses $\iff$ Intonation Phrases ($\iota$)
- Syntactic Phrases $\iff$ Phonological Phrases ($\phi$)
- Syntactic words ($X^0$) $\iff$ Prosodic Word ($\omega$)
“Flexible” Mapping of Intonation Phrases

3. A cross-categorial characterization of clauses

Syntax-Prosody/Prosody-Syntax Mapping:

- Syntactic clauses $\iff$ Intonation Phrases ($\iota$)
- Syntactic Phrases (XP) $\iff$ Phonological Phrases ($\phi$)
- Syntactic words ($X^0$) $\iff$ Prosodic Word ($\omega$)
Syntax-Prosody/Prosody-Syntax Mapping:

Syntactic clauses (HVP) $\iff$ Intonation Phrases ($\iota$)
Syntactic Phrases (XP) $\iff$ Phonological Phrases ($\phi$)
Syntactic words ($X^0$) $\iff$ Prosodic Word ($\omega$)
What can the Flexible Approach tell us about the expression of IS?

A prediction

- Strong relation between focus and maximum prosodic prominence (Jackendoff 1972, Truckenbrodt 1995, Büring 2009)

**Focus rule** (Reinhart 1995, Reinhart 2006):
The focus of a clause is a(ny) constituent containing the main stress of the intonational phrase (...).
What can the Flexible Approach tell us about the expression of IS? 

A prediction

- As focus has to realize the head of ι and
- the head of ι is assigned within the core ι and
- the ι has a close relation to the verb/verb highest projection
- then focus and verb are closely related and
- focus has to be located in the lowest segment of the projection whose head is overtly filled with the verb or verbal material (HVP).
What can the Flexible Approach tell us about the expression of IS?

A prediction

- This is the case in languages that do not show clear correlates of prosodic heads.

ALIGNFOCUS-R/L-ι/ϕ (Féry 2013):
Align a focus with the right/left boundary of ι/ϕ.
Focus and the left-periphery

Two examples that illustrate the relation between focus and verb:

- Hungarian focus
- French wh-questions

→ If focus moves to the left (for reasons that are dependent on the language), the verb moves as well or verbal material is inserted.
Focus and the left-periphery

Hungarian focus

- Hungarian has leftward sentence stress.

(3) \[ \text{TopP Peter [VP MEG-SZERETTE Marit.]]} \\
    Peter PRT-loved Mari-ACC \\
    ‘Peter started loving Mary.’ neutral sentence

(4) \[ \text{TopP Péter [FocP MARIT szerette [VP meg tV tNP ]]} \]
    Peter Mary-ACC loved PRT \\
    ‘It was Mary that Peter started loving.’ left-peripheral focus
Focus and the left-periphery
Hungarian focus

- Edges diagnosed through Eastern European Question Tune (H-)L* H-L% (Ladd 1996).
Focus and the left-periphery

Hungarian focus

- \( \nu \)-edges diagnosed through Eastern European Question Tune (H-)L* H-L% (Ladd 1996).
(4)′ (l Péter (l MÁRIT szerette meg))

→ If focus needs to be part of the core l, and core l and HVP have to match, the proximity between verb and focus is expected.
Focus and the left-periphery
French wh-questions

(5) Qu’est-ce qu’il a mangé L%?
What-ESK he has eaten
‘What did he eat?’ (Colloquial French)

(6) Qu’a-t-il mangé L%?
What-has-he eaten
‘What did he eat?’ (Standard French)

- The wh-phrase is in Spec,CP (syntax-semantics interface, scopal position).
- I-to-C movement/ESK insertion (Rooryck 1994).
- The whole sentence constitutes one $\iota$ as diagnosed by the possibility of inserting L% (terminal) boundary tones.
(5) Qu’est-ce *L% qu’il *L% a mangé? (Colloquial French)
(6) Qu’a-t-il *L% mangé? (Standard French)

- The wh-phrase is in Spec,CP (syntax-semantics interface, scopal position).
- I-to-C movement/ESK insertion (Rooryck 1994).
- The whole sentence constitutes one $\iota$ as diagnosed by the impossibility of inserting other L% (terminal) boundary tones.
If focus needs to be part of the core $\iota$, and core $\iota$ and HVP have to match, the proximity between verb and focus is expected.
Focus and the right-periphery?

No mirror image: being high on the right is not reported to be a focusing strategy but rather a topicalizing one. This is true even in languages in which there is not always clear correlates of stress.

$\rightarrow$ There is just no verb movement that can make this position part of the HVP.
After the Verb Focus

In a number of languages focus needs to (immediately) follow the verb:

- Bantu (Marten & van der Wal 2015, Kula 2008, Hamlaoui forth)

- Mostly SVO languages.
- Subject/non-subject asymmetry in focusing.
“[Northern Sotho] targets discourse-old constituents which get either deleted, pronominalized or dislocated to either left- or right sentence periphery. These processes conspire in such a way that the focused constituents often end up in clause-final position.” (Zerbian 2006: 1)

(7) Zerbian (2006: 67)

a. Mo-kgalabje o nyaka [ngaka]_F.
   CL1-old.man CL1 look.for CL9.doctor
   ‘The old man is looking for THE DOCTOR.’

b. Mo-kgalabje o nyaka ngaka [toropo-ng]_F.
   CL1-old.man CL1 look.for CL9.doctor CL9.town-LOC
   ‘The old man is looking for the doctor IN TOWN.’
“... focus expression in Aghem is intimately connected with the immediate postverbal position, which (...) has been known under the abbreviation IAV (immediately after the verb)” (Hyman & Polinsky: 1)

(8) Watters (1979), Hyman (1979), Hyman & Polinsky (2012)

a. t´i-bvú tì-bìghà mò zì [kí-bé]F ́nê.
dogs two P1 eat fufu today
‘The two dogs ate FUFU today.’

b. tˇi-bvú tì-bìghà mò [nê]F ́bê ́k˘.
dogs two P1 eat today fufu D.OBL
‘The two dogs ate fufu TODAY.’
“Dependent on the valency of the verb, a logical subject can either be focused (...) in its postverbal, VP-internal position, and/or by means of a cleft sentence.” (Zerbian 2006: 69)

(9) Zerbian (2006: 70)

a. Go fihla mang?
   CL17 arrive who
   ‘Who is arriving?’

b. Go bina bo-mang?
   CL17 dance CL2b-who
   ‘Who is dancing?’
“Dependent on the valency of the verb, a logical subject can either be focused (...) in its postverbal, VP-internal position, and/or by means of a cleft sentence.” (Zerbian 2006: 69)

(10) Zerbian (2006: 71)

a. Ké mang (yo) a nyaka-ng ngaka?
   COP who DEM.CL1 CL1 look.for-REL CL9.doctor
   ‘Who is looking for the doctor?’

b. Ké [mo-kgalabje]F (yo) a tlhokomela-ng
   COP CL1-old.man DEM.CL1 CL1 look.for-REL
   ngaka.
   CL9.doctor
   Lit. ‘It is the old man who is looking for the doctor.’
“... focus expression in Aghem is intimately connected with the immediate postverbal position, which (...) has been known under the abbreviation IAV (immediately after the verb).” (Hyman & Polinsky: 1)

(11)  à mò zì [tì-bvù tì-bìghà]F bë Ṗkò né.
ES P1 eat [dogs two] fufu D.OBL today
‘The TWO DOGS ate fufu today.’

“... the object cannot appear in the direct case and it has to be at the right periphery of the clause.” (Hyman & Polinsky 2012: 9)
In sum

Non-subject focus:
- In situ, with or without externalising other items outside VP

Subject focus:
- Clefting
- VS/OVS
- Long passives
- Locative/Impersonal inversions
The size of the core clause can be expanded by verb movement, which is assumed to be to the left.

On the right side of the clause, the edge of the core $\iota$ is fixed: the edge of the lowest segment of VP.
By default, non-subject arguments are part of the core clause, as their canonical position is within the lowest segment of $\iota$.

→ the only domain that is part of the core $\iota$ no matter how high the verb is.
By default the rightmost element in the VP also aligns with the right edge of $\iota$: the position in which $\iota$ heads are realized by default in many stress languages.
To be part of a subject minimally needs to be part of the core HVP.
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If they additionally need to align with the right edge: they need to be last in the HVP → thus follow the verb and have other items vacate the VP.
Another possible way of right-aligning

If they additionally need to align with the right edge: they need to be last in the HVP → thus follow the verb and have other items vacate the VP.
Another possible way of right-aligning which is disfavored

- But they are not usually right-dislocated. They can’t be aligned with just any \( \textit{t} \) edge, but the core \( \textit{t} \).

\[
\text{CP} \quad \textit{t} = \text{Speech act}
\]

\[
\text{Focus}
\]

\[
\text{CP} \quad \textit{t} = \text{HVP}
\]

\[
\text{verb} \quad \text{TP}
\]

\[
\text{vP}
\]
A focus needs to be part of the core $\iota$, the one that is normally determined by the HVP.

This is true even in languages where there is no clear evidence for sentence stress.

This might suggest that the notion of $\iota$ head is relevant in these languages too (covert head).
The flexible approach accounts for some of the crosslinguistic variation in focus location:

- Why the left-periphery of the clause is better than the right-periphery to host foci.
- Why foci and verbs tend to be in the vicinity of each other.
- Why subject foci require non-canonical structures/configurations in many SVO languages in which non-subjects are focused in situ but are usually not right-dislocated to achieve alignment with an right edge.
continue our examination of both syntax and prosody.
Thank you!
Selected references