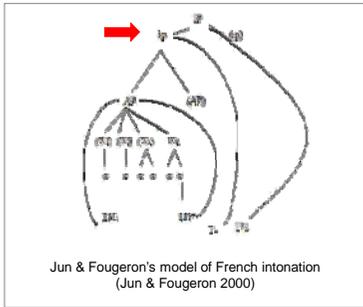


Amandine Michelas* & Mariapaola D'Imperio*

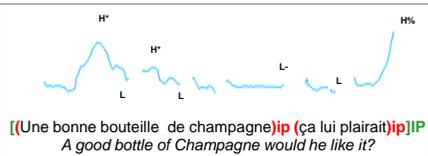
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INTRODUCTION

As in English, an intermediate phrase is postulated in the French prosodic hierarchy

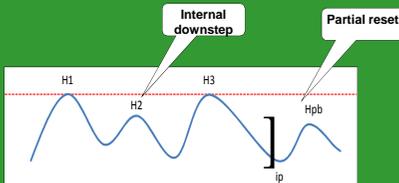


In Jun & Fougeron's model, the ip is postulated to account for tonal spreading in specific marked intonation patterns (e.g. left dislocation, tag questions, etc.)



HYPOTHESES

1. ip boundaries are not restricted to specific syntactic patterns but can be found more generally at right edges of major syntactic breaks.
2. Presence of an ip boundary is not necessarily signaled by tonal spreading, but also by a return to the register level before the boundary and partial reset after it.



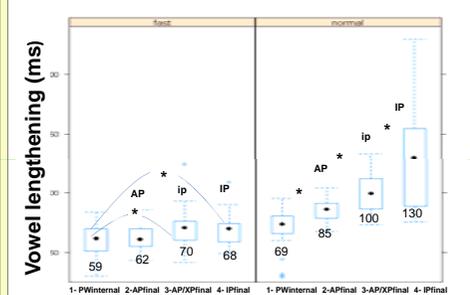
PREDICTIONS

1. Stronger phonetic cues at ip boundary than at AP boundary
2. Ip blocks iterative downstep and provokes a return to the register level
3. The first postboundary peak will show partial reset

EXPERIMENT I

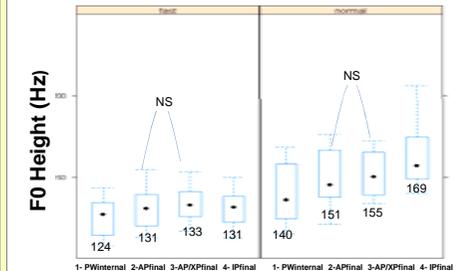
320 read sentences (8 sentences x 4 repetitions x 2 speakers x normal and fast speech rates)

Prosodic boundary	Sentences
1- PW internal	Les gre ⁿ adiers de Marrakesh... «Pomegranates of Marrakesh...»
2- AP final	Le saun ^a IP de Paolo deviendra... «Paolo's sauna will become...»
3- ip final	Le saun ^a IP/AP/IP deviendra... «The sauna will become...»
4- IP final	Le saun ^a IP, d'après ce qu'on m'a dit... «The sauna, according to what I was told, ...»



AP boundary is marked by significant lengthening when XP final, at normal rate

Conflicting cues for ip level in French: F0 cues

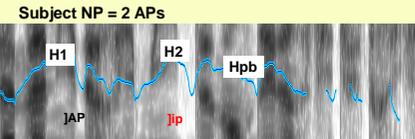


F0 values of AP/XP final vowel are not higher than the AP final ones

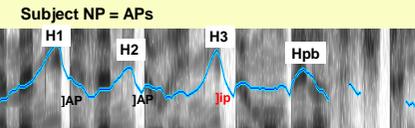
NP length might influence phrasing (here ip = 1 AP)

EXPERIMENT II

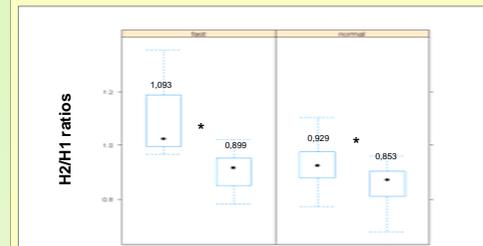
-128 read utterances (8 sentences x 4 repetitions x 2 speakers x normal and fast speech rates)
 - Normal: AP number (2 APs/3 APs), rate (normal/fast)
 - Measures: - H2 height (H2/H1 ratio)
 - first postboundary LH* height (Hpb/H1 ratio)



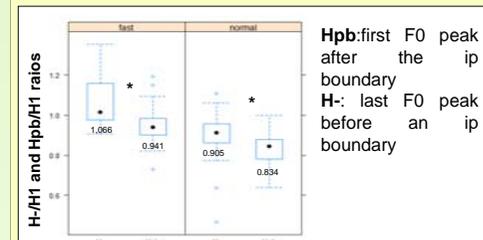
La mamie de Rémy demandait l'institutrice.
 Remy's grandmother asked for the teacher.



La mamie des amis de Rémy demandait l'institutrice.
 «The grandmother of Remy's friends asked for the teacher.»



V2 is higher and longer in the 2-AP condition



Partial reset after the ip boundary: Hpb is lower than H-

DISCUSSION

- ip right boundary marking in French is characterized by:
- Significant degree of lengthening at normal speech rate
 - H- phrase accent which blocking iterative downstep of subsequent LH* within the ip
 - Partial reset after the ip boundary

Interaction between 2 constraints is responsible for ip boundary placement

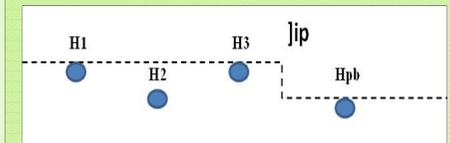
ALIGN XP,R,ip,R:

align the right edge of a maximal projection with the right edge of an ip

MIN-BIN:

non-final ips consist of minimally two APs

Register downstep within the ip



Discret/gradient boundary cues ?



CONCLUSION

- The ip in French is not restricted to specific syntactic patterns and is signaled by the presence of a H- phrase accent which blocks iterative downstep within the ip.
- Preboundary lengthening is only found at normal speech rate. Partial reset is found after the boundary.
- Syntactic and phrase length interaction is responsible for ip boundary placement.

References

Jun, S.A. & Fougeron, C. (2000). A Phonological Model of French Intonation, in *Intonation: Analysis, Modeling and Technology*, ed. By A. Botinis. Kluwer Academic Publishers, 209-242.
 Prieto, P. (2005). "Syntactic and eurhythmic constraints on phrasing decisions in Catalan". *Studia Linguistica* 59(2-3), special issue on 'Boundaries in International Phonology', ed. by M. Horne & M. van Oostendorp), 194-222.
 Selkirk, E. 1986. On derived domains in sentence phonology. *Phonology Yearbook* 3, 371-405.