Intonational Contrast as a marker of recursivity in French

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As in many languages, prosodic phrase boundaries in French are usually aligned with the edge of certain morpho-syntactic units such as lexical heads of XPs, XPs, independent clauses CPs (e.g. Selkirk 1986 et seq.; Delais-Roussarie 1996; Post 2000; Mertens 2008; Delais-Roussarie et al. 2011). Since phrasing usually encodes in French information that would be conveyed by pitch accent in a Germanic language (e.g. Fery 2001; Delais & Post 2008), an IP boundary is also realized to mark the edge of morpho-syntactic units which have a specific informational status ([+ Focus], [+ Topic], etc.),.

In addition, French is known for a strong syncretism between intonation, accentuation and phrasing. Rising tonal movements are usually observed at the end of any non-final prosodic phrases: a H* pitch accent marks the final syllable of the minor phrase, a H*H- continuation rise is realized at the end of the major phrase, and H*H% marks the end of non-final intonation phrases (e.g. Delais-Roussarie et al. 2015). In some exceptional cases, however, the melodic movements occurring at the end of non-final prosodic phrases (often referred to as the Accentual Phrase and Intermediate Phrase, respectively) show a falling movement (Delattre 1966; Martin 1987; among others), and has been accounted for through a phonological mechanism called the "contraste de pente" (Martin 1987 et seq.).

In this paper, we will examine the various grammatical conditions which constrain the obligatory realization of this particular falling configuration. The most common occurrence is at the edge of intonation phrases (IPs) which are aligned with phrases in the morpho-syntactic structure (dislocation XPs, frame-setters). In (1a) and (1b), the initial IP ("le fils du voisin" and "chaque fois que je reste à Toulouse") is right-headed by a falling movement, which contrast with what is observed in (2a) and (2b) respectively (see fig. 1 and 2 for the contrast). The configuration can also occur in case of clause chaining to indicate the dependency relation between clauses as in (3). The CPs "je me levais le matin" and "je mangeais à midi", for instance, are grouped together with the CPs "j'étais avec des clients" to form a higher-level IP as well as a syntactically coherent unit.

(1)   a. [[[Le fils du voisin L%]]IP, je l'ai vu hier H%]IP [et nous avons discuté un bon moment L%]IP]U
        'The neighbour's son, I saw him yesterday, and we talked for a while'
      b. [[[Chaque fois que je vais à Toulouse L%]IP, je m'ennuie H%]IP, [mais si je reste à Bordeaux, je m'ennuie aussi L%]IP]U
        '*Every time I go to Toulouse, I get bored, but if I stay in Bordeaux, I also get bored'*

(2)   a. [[[Le fils du voisin H%]IP, [je l'ai vu hier L%]IP]U
        'The neighbour's son, I saw him yesterday'
      b. [[[Chaque fois que je vais à Toulouse H%]IP, [c'est pareil L%]IP]U
        'Every time I go to Toulouse, it's the same'

(3)   [[[(je me levais)PhP (le matin)PhP L%]IP (j'étais avec des clients)PhP H%]IP [[(je mangeais)PhP (à midi)PhP L%]IP (j'étais avec des clients)PhP H%]IP [(et je me couchais)PhP (le soir)PhP H%]IP (j'étais avec des clients)PhP L%]IP]U.
        'I'd get up in the morning, I'd be with clients; I'd eat at noon, I'd be with clients; I'd go to bed at night, I'd be with clients'

We will argue that the falling tonal configuration is a marker of a recursive structure. In addition, IPs derived from adjunct phrases may be analysed as a recursive sub-category of IPs

derived from true independent clauses, drawing a parallel to what was proposed by Ito & Mester 2013 for the distinction between Minor Phrase and Major Phrase.
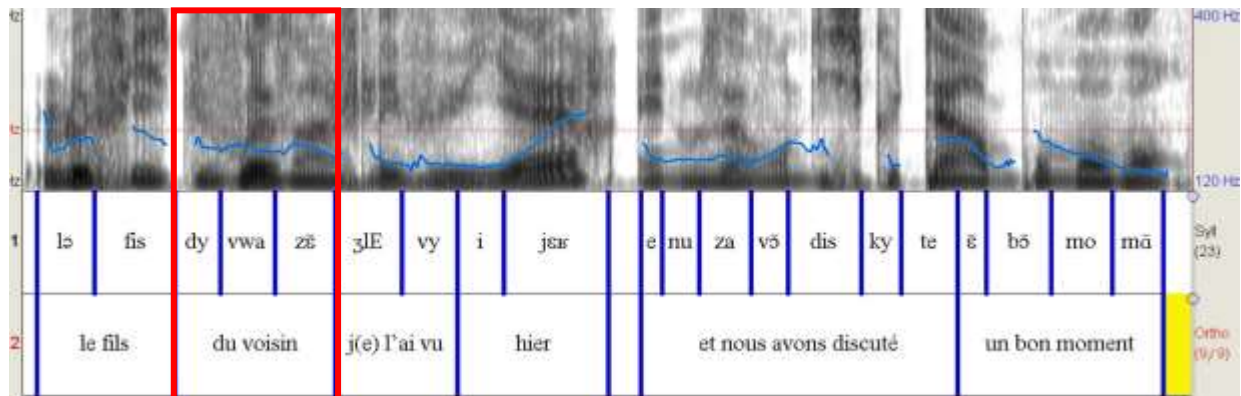
Fig. 1 : Pitch track for the sentence *"le fils du voisin, je l'ai vu hier, et nous avons discuté un bon moment"* with a falling movement at the end of *voisin*
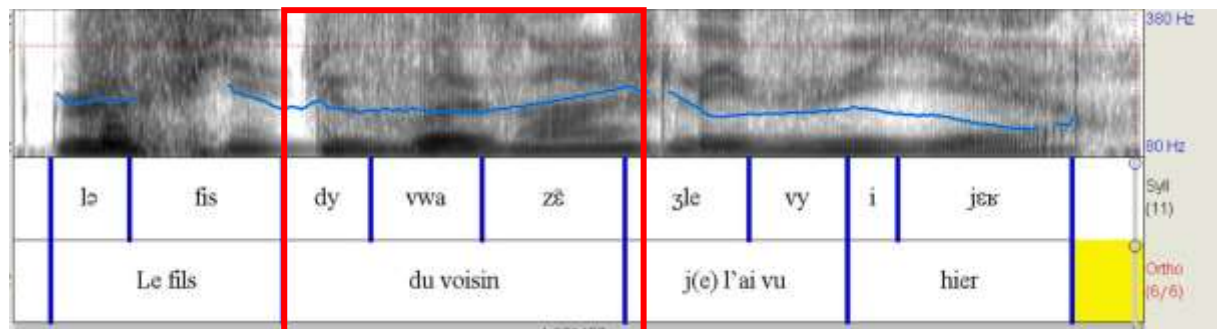
Fig. 2: Pitch track for the sentence *"le fils du voisin, je l'ai vu hier"* with a rising movement at the end of *voisin*.

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