

Prosodic scope of discourse markers in French

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Abstract

Discourse markers in French, such as *en fait* and *du coup*, have no syntactic relations with units that precede or follow, but are associated with melodic contours that indicate prosodic dependency relations with accent phrases that surround them. These dependency relations determine their position in the prosodic structure, which in turn determines the scope on which bears the discourse markers in the sentence.

Keywords: discourse marker, prosodic structure, *en fait*, *du coup*, WinPitch.

Introduction

While the various word sequences described as discourse markers may belong to different morphological and syntactic categories (conjunctions, adverbs, imperative forms, nominal and verbal phrases, etc.), two properties - one syntactic, the other prosodic - are decisive in conferring this label on them:

1. They form sequences devoid of explicit syntactic dependency relations to the units that precede or follow (Dostie, 2019; Tutin, 2019).
2. They form one or, more rarely, several accent phrases, maintaining prosodic dependency relations with the accent phrases that follow or precede. These relationships define their position in the prosodic structure and determine their scope in relation to the other units of the sentence (Martin, 2022).

Melodic contours and prosodic structure

The prosodic structure is defined as a hierarchical grouping of accent phrases, i.e., sequences of words containing only one (non emphatic) stressed syllable, in final position in French. It is assumed to be determined by dependency relations, indicated by specific melodic contours instantiated on accent phrases stressed syllables vowels (Martin, 2018). The prosodic structure is autonomous, independent a priori of any other structure in the sentence, whether syntactic, semantic or informational., and should therefore be described solely by intrinsic prosodic properties.

Prosodic dependency grammar

The contours indicating dependency relationships, and hence successive merges of accent phrases into prosodic syntagms (accent phrases clusters), are located on the final stressed syllable vowel:

Cdec ↓ Declarative conclusive terminal contour, root of the prosodic structure, characterized by a melodic movement reaching the lowest frequency value among the other contours of the sentence (i.e. those aligned with the vowels of the effectively stressed syllables).

Cint ↑ Interrogative conclusive terminal contour, root of the prosodic structure, characterized by a melodic movement reaching the highest frequency value among the other contours of the phrase.

Cris ↗ Rising contour, with variation above the threshold of perceived melodic change (glissando threshold, Rossi 1971), dependent on the "right" on a Cdec contour.

Cfap# ↘# Falling contour, similar to Cfal, but followed with a pause greater than 250 ms, phonological variant of Cris (dictation contour).

Cfal ↘ Falling contour, with variation above the threshold for perception of melodic change, dependent on the "right" on Cris or Cfap# contours.

Cneu → Neutral contour, variation below threshold for perception of melodic change, perceived as a static tone, dependent on the "right" on either Cfal, Cris, Cfap#, Cdec or Cint.

C0n ← Neutral contour, similar to Cneu, dependent on the "left" on Cdec (declarative postnucleus).

Cin ↑ Neutral contour, similar to Cint, dependent on the "left" on Cint (interrogative postnucleus).

The scope of a non-sentence-final discourse marker is determined by its position in the prosodic structure, and thus by its melodic contour relative to the first higher-ranking contour encountered further down the sentence, with the ranking **Cneu** < **Cfal** < **Cris** ; **Cfap#** < **Cdec** ; **Cint**, as shown in the following example:

mais bon **Cneu**→ **du coup** **Cris**↗ [*il m'a dit non non* **Cneu**→ *c'est pas une bonne idée* **Cris**↗ *ça coûte cher* **Cdec**↓]. The scope, indicated in square brackets, is delimited by the contour Cdec occurring later in sentence, of higher rank than Cris.

In final position, the range is determined by the first contour of lower rank than Cdec (or Cint) encountered earlier in the sentence:

il y avait ah oui **Cris**↗ *c'est vrai* **Cfal**↘ *il y avait le badminton* **Cris**↗ *ben oui* **Cris**↗ [*j'en ai fait* **Cdec**↓] **du coup** **C0n**←, la portée est *j'en ai fait*, précédé du contour Cris, de rang inférieur à Cdec.

Data

The Orfeo and Ofrom corpora contain 1,273 files containing 4,224,638 words, including: a) 7292 occurrences of *en fait* b) 2513 occurrences of *du coup* c) 16 occurrences of *du coup en fait* d) 10 occurrences of *en fait du coup*.

A random selection of about one hundred examples was made to represent the different configurations considered, at the beginning, middle and end of the prosodic structure, independently of the text. The aim of this study is not to determine the distribution of discourse markers according to their syntactic, semantic or informational environments, but rather to determine how the listener apprehends in real time their scope.

Du coup

In the few examples of prosodic configurations presented here, the scope of *du coup* is indicated in right-hand brackets as determined by the rules given above. The reference of the analyzed segments is given in parentheses.

a) Rheme-theme configuration after a conclusive contour

Declarative, carrying a neutralized contour C0n:

[*tu le vois plus* Cdec ↓] **du coup** C0n← [*tu es triste* Cdec ↓] (16kslr110914 du coup 4200.613 s 4202.473 s).

Interrogative, carrying a contour Cin↑, copy of Cint↑.

[*et puis ils restent à McDo* Cint↑] **du coup** Cin↑ (14_ct_mb_100224 du coup 2340.800 s 2343.204 s).

b) At the beginning of the sentence (ended by *Cris↗* or *Cneu→*), *du coup* refers to all the elements of the sentence that follow.

Preceded by an accent phrase terminated by a neutral contour:

mais bon Cneu→ **du coup** Cris↗ [*il m'a dit non non* Cneu→ *c'est pas une bonne idée* Cris↗ *ça coûte cher* Cdec ↓] (02amgl110912 du coup 4822.155 s 4829.543 s).

Du coup Cris↗ [*il croyait* Cris↗ *qu'il était en* Cfal↘ *il savait* Cris↗ *qu'il était* Cneu→ *dans son lit* Cris↗] (08lfbm110912 du coup 516.471 s 525.226 s).

ça m'a bien plu Cris↗ **du coup** ben Cris↗ [*je me suis intéressée* Cfal↘ *à la langue* Cris↗] *après il y a eu les mangas* Cris↗ (01bhgm110912 du coup 173.251 s 178.663 s).

En fait

Examples of prosodic configurations selected from the corpus:

Example of a theme-rheme configuration, at the end of the sentence, after the concluding terminal contour Cdec ↓:

[*je sais pas vraiment c'est c'est* Cneu→ *les traditions* Cdec ↓] **en fait** C0n ← (01bhgm110912 en fait 161.762 s 174.388 s).

Conclusion

The various examples taken from the Orfeo and Ofrom corpora illustrate the three main prosodic configurations in which the discourse markers *en fait* and *du coup* appear.

The examples of partial prosodic groupings show that neither *en fait* nor *du coup* necessarily covers all the units of the sentence, despite the absence of syntactic relations to these units. It is ultimately the prosodic structure into which these words are inserted that determines their scope, determined by the occurrence of a higher-ranking contour "to the right" (i.e., further down the sentence), or if they are in final position, by the occurrence of a lower-ranking contour or conclusive terminal contour, "to the left", i.e., earlier in the sentence.

Contrary to certain preconceived ideas, therefore, no specific melodic patterns were found that would be characteristic of and dedicated to words in discourse, as authors such as M. Petit (2011) have described. On the contrary, all the selected occurrences show that the accent phrases carrying *du coup* and *en fait* fit into the mold of a prosodic structure that has nothing specific related to the meaning or context of these expressions.

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