# SegCor Macrosyntactic Segmentation 

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## Introduction

The aim of this guideline is to develop a practical approach to the macrosyntactic segmentation of French oral corpora. This document relies on the theoretical principles and the analytical issues elaborated by C. Blanche-Benveniste and colleagues (1990), and the Groupe Aixois de Recherche Sur le français parlé (GARS). Subsequent syntactic descriptions of oral French have been proposed by Blanche-Benveniste (2010a, 2010b) with a simpler terminology. Through this guideline, we offer an annotation scheme for typical phenomena in spoken French.
The macrosyntactic level is a wider analytical level, which is situated beyond government and the traditional domain of syntax (i.e. the relations within the subject - verb - complement model, the relations between main clauses and subordinate ones). The notions used in this document and some segmentation choices are the result of teamwork and are grounded on previous contributions in oral corpora segmentation, namely the protocols produced within the frameworks of the Rhapsodie ${ }^{1}$ and the ORFEO ${ }^{2}$ ANR projects.
From a methodological point of view, two general criteria have been considered: substitution and paraphrase.

## Segmentation and Annotation with EXMARaLDA Partitur-Editor

This guideline proposes the use of the EXMARaLDA Partitur-Editor for the segmentation and annotation of the transcripts. Clicking on File $\rightarrow$ Import, you can import various transcript files in the Partitur-Editor.
$\rightarrow$ Shared introduction (Macrosyntax + Syntax + Interactional Units) ?
$\rightarrow$ Stylesheets for the automatic generation of the tagset
You can segment the "Speaker[v]" tiers by splitting and merging the existing segments.
In order to split a segment that is too long, you click in the text where you want to split the segment. Then you either choose the split button or the key sequence ctrl+2.

[^0]In order to merge several segments, you mark the segments you want to merge with the left mouse button and either choose the merge button 毠 or the key sequence ctrl+1.
If you aim at an inter-annotator agreement, please be careful with the splitting and merging of segments as far as time alignment is concerned. The examples mentioned above are based on a tokenised transcript (i.e. each morpheme represents a single event). It is recommended to tokenise the transcript before annotating it, in order to limit alignment errors due to various ways of splitting segments (you can use the function "export segmented transcription" in the latest preview of the partitur-editor but you might want to check for tokenisation errors in cases of overlapping speech contributions). If you do not use a tokenised transcript, please make sure you always split after a space.

## Annotation Tagset

| TAG | English label | French label |
| :---: | :---: | :---: |
| MU - Macrosyntactic Units |  |  |
| MU | Maximal Macrosyntactic Unit | Unité macrosyntaxique maximale |
| MU_dis | Discontinuous MU | UM discontinue |
| MU_par | Parenthetical MU | UM parenthétique |
| MU_col | Collaborative MU | UM collaborative |
| MU_ab | Abandoned MU | UM abandonnée |
| A-AdN - Components (ab \& dis as extra information) |  |  |
| N / N_dis | Nucleus / Discontinuous N | Noyau / N discontinu |
| PreN / PreN_ab | Prenucleus / Abandoned PreN | Prénoyau $/$ PréN abandonné |
| PostN / PostN_ab | Postnucleus / Abandoned PostN | Postnoyau $/$ PostN abandonné |
| InN / InN_ab | Innucleus / Abandoned InN | Innoyau / InN abandonné |
| Graft - Graft Phenomena |  |  |
| DS | Direct Speech | Discours direct |
| Graft | Other cases of grafts | Autres cas de greffes |
| Comment - Segmentation Comments |  |  |
| Series of MU | Series of MU | Série d'unités macrosyntaxiques |


| Segmentation problem | Segmentation problem (to <br> be defined) | Problème de <br> segmentation (à définir) |
| :--- | :--- | :--- |

## Overview

A maximal macrosyntactic unit is an utterance constituted at least of a nucleus. The nucleus may occur with peripheral elements (prenuclei, postnuclei) or with inserted elements (innuclei), i.e. adnuclei. Nuclei, prenuclei, postnuclei and innuclei are minimal macrosyntactic units.

## Minimal Macrosyntactic Units

## Nuclei

A nucleus is the fundamental part of a maximal macrosyntactic unit. A maximal macrosyntactic unit (MU) contains at least a nucleus. A nucleus corresponds to a potentially isolated, autonomous utterance, which is characterised by an illocutionary force on its own (from a pragmatic perspective, a nucleus can be considered as a minimal illocutionary unit). A nucleus can namely be negated, whereas adnuclei cannot:
Ex: j'ai mon frère il est malade
Negation test: *je n'ai pas mon frère il est malade vs j’ai mon frère il n'est pas malade The nucleus is therefore il est malade (and j'ai mon frère is a prenucleus).

A maximal macrosyntactic unit can consist of a grouping, i.e. a nucleus accompanied by one or several adnuclei. Beyond macrosyntax, it is worth noting in the commentary tier certain configurations, i.e. series of nuclei that are characterised by similar syntactic constructions and/or lexicon in the same semantic field. Configurations of this kind have to figure in the commentary tier (see below for details, fig. 32).
Nuclei may have different realisations. They may be organised around pivots of different categories.

## Verbal Nuclei

Verbal nuclei are organised around verbs, this kind of unit is usually called a clausal structure. In the example below (fig. 1), the intransitive verb passe is the pivot of the unit and is preceded by the nominal phrase le temps, whose syntactic function is subject.

| so then time goes by |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| NAT[ortho] [v] puis après le temps passe  <br> NAT [MU] MU      <br> NAT [N-AdN] N      <br> NAT [Phen]       <br> NAT [Comment]       |  |  |  |  |  |

Fig. 1: CLAPI_Phone-call_Copines (169-173)

## Nominal Nuclei

Nominal nuclei are organised around nouns.

|  | 2365 | 236610 | 2367 | 2368 | 2369 | 2370 [09:19.3] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clai [ortho] | et | (0.3) | euh | une | autre | information |
| Clai [MU] | MU |  |  |  |  |  |
| Clai [N-AdN] | N |  |  |  |  |  |

Fig. 2: CLAPI_Social-Meeting_MJC (2365-2370)
In the example above (fig. 2), the nominal pivot information is part of a minimal macrosyntactic unit, which is not coextensive with a turn of talk and projects more to come.
one hundred twenty-six
one hundred thirty

| Léa[ortho][v] [v] | cent | vingt | six |  |
| :---: | :---: | :---: | :---: | :---: |
| Léa[MU] [v] | MU |  |  |  |
| Léa[v] [AdN] | N |  |  |  |
| Léa[Phen] [v] |  |  |  |  |
| Léa[Comment] [v] |  |  |  |  |
| Paul[v] [v] | [cent trente] |  |  |  |
| Paul[ortho][v] [v] | cent trente |  |  | - |
| Paul MU ] [v] | MU |  |  |  |
| Paulvi [AdN] | N |  |  |  |
| Paul[Phen] [v] |  |  |  |  |
| Paul[Comment] [v] |  |  |  |  |

Fig. 3: CLAPI_Social-Meeting_MJC (323-333)

In the example above (fig. 3), Léa and Paul produce two numeral phrases in overlap, which have been annotated as nuclei (cent vingt-six and cent trente, respectively).

In some cases, nominal pivots can be introduced by presentative constructions. In the example below, $y$ a introduces the nominal phrase une jeune apprentie.

|  | no |  |  |  |  |  | app | tice t |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| spl2[ortho] [v] | non | en | Ce | moment | Y | a | une | jeune | apprentie | aussi |
| spl2 [MU] | MU |  |  |  |  |  |  |  |  |  |
| spk2 [N-AdN] | N |  |  |  |  |  |  |  |  |  |
| spl2 [Phen] |  |  |  |  |  |  |  |  |  |  |
| spl2 [Comment] |  |  |  |  |  |  |  |  |  |  |

Fig. 4: ESLO_Interview (83-92)

## Pronominal Nuclei

Pronominal nuclei are organised around pronominal pivots.
In the example below, the final element it represents the pronominal pivot of the minimal macrosyntactic unit, which is relevant for its microsyntactic characterization.

| that's it |  |  |  |
| :--- | :--- | :--- | :--- |
| Sar[ortho][v] [v] | c $^{\prime}$ | est | ça |
| Sar[MU] [v] | MU |  |  |
| Sar[N-Adj] [v] | N |  |  |

Fig. 5: CLAPI_Social-Meeting_MJC (2348-2350)

## Adjectival Nuclei

Adjectival nuclei are organised around adjectival pivots.
oh so funny

|  | 2916 [II 2917 [II 2918 [II [2919 [II 2920 [II |  |  |
| :---: | :---: | :---: | :---: |
| ELII [ortho] | oh | trop | drôle |
| ELII [MU] | MU |  |  |
| ELII [N-AdN] | N |  |  |

Fig. 6: CLAPI_Table-talk_Kiwi (2916-2920)
that's too lovely hm

| BEA[0rtho] [v] | $c^{\prime}$ | est | trop | joli | hm |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BEA [MU] | MU |  |  |  |  |
| BEA [N-AdN] | N |  |  |  |  |
| BEA [Phen] |  |  |  |  |  |
| BEA [Comment] |  |  |  |  |  |

Fig. 7: CLAPI_Table-talk_Kiwi (169-177)

In some cases, adjectival pivots can be introduced by prepositions. In the example below, the preposition since preceded the (modified) adjective young.

| spk2[0rtho] [v] | ouais | ouais | non | non | moi | depuis | tout | petit | hein |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| spk2 [MU] | MU |  |  |  |  |  |  |  |  |
| spk2 [N-AdN] | N_disl |  |  |  | InN | N_dis2 |  |  |  |
| spl2 [Phen] |  |  |  |  |  |  |  |  |  |
| spl2 [Comment] |  |  |  |  |  |  |  |  |  |

Fig. 8: ESLO_Interview (511-523)

## Adverbial Nuclei

Adverbial nuclei are organised around adverbial pivots.

| exactly |  |
| :--- | :--- |
| MEL[ortho] [v] | exactement |
| MEL [MU] | MU |
| MEL [N-AdN] | N |
| MEL [Phen] |  |
| MEL [Comment] |  |

Fig. 9: CLAPI_Phone-call_Copines (180-182)

|  | absolutely |
| :--- | :--- |
|  | 2263 [08:53.6] |
| Ben [ortho] | absolument |
| Ben [MU] | MU |
| Ben [N-AdN] | N |

Fig. 10: CLAPI_Social-Meeting_MJC (2263)

## "Sentence Word" Nuclei

The nucleus can boil down to a sentence word (such as ouais, oui, voilà, hein, according to Tesnière 2015, see also Quirk et al. 1985 for similar issues in English). In the following excerpt (fig. 11), the little word voilà ("here we are") is the pivotal element of the unit.

|  |  | er well here we are |  |
| :--- | :--- | :--- | :--- |
| ELI[ortho] [v] | bon | ben | voilà |
| ELI [MU] | MU |  |  |
| ELI [N-AdN] | N |  |  |
| ELI [Phen] |  |  |  |
| ELI [Comment] |  |  |  |

Fig. 11: CLAPI_Table-talk_Kiwi (57-59)

## "Little words" in oral French (see Morel \& Danon-Boileau 1998)

Items such as oui, ouais, non, voilà, bon, ben, quoi, hein, enfin are frequently used in oral French. Their segmentation can be problematic. They can act in two ways: either as nuclei or as discourse markers. The latter are attached to a larger macrosyntactic unit, i.e. are part of nuclei and of pre/postnuclei.


Fig. 12: CLAPI_Table-talk_Kiwi (564-574)
In the example above (fig. 12, see also fig. 11), the first particle bon ("well") is part of the prenucleus, together with the adverbial group en tout cas ("in any case"). Additionally, the nucleus is composed of a verbal construction (ça fait plaisir). A closing particle (quoi) is attached to the postnucleus n'empêche ("all the same").

When several little words are attested in a series (e.g. ouais ouais, two elements in a row) and there is a pause in between, the timing of the pause represents a criterion for segmentation. If the pause is equal to or greater than 0.2 second (cf. Levinson \&

Torreira 2015), the first little word constitutes a macrosyntactic unit in itself, as in the example below (fig. 13):

| yeah |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANA[0rtho] [v] | ouais |  | ouais | $c^{\prime}$ | est | $c^{\prime}$ | est | vrai |
| ANA [MU] | MU |  | MU |  |  |  |  |  |
| ANA [N-AdN] | N |  | N |  |  |  |  |  |
| ANA [Phen] |  |  |  |  |  |  |  |  |
| ANA [Comment] |  |  |  |  |  |  |  |  |

Fig. 13: CLAPI_Phone-call_CLE1 (92-99)

Similarly, in the example below (fig. 14), the initial (and only) ouais ("yeah") is produced as a separate prosodic unit from ça c'est ton job ("that is your job"), hence two macrosyntactic units with a nucleus each.
yeah that it's your job

| FLO[ortho] [v] | ouais | 0.287 | ça | $\mathrm{c}^{\prime}$ | est | ton | job |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| FLO [MU] | MU |  |  |  |  |  |  |  |  |  |
| FLO [N-AdN] | N |  |  |  |  |  |  |  | N |  |
| FLO [Phen] |  |  |  |  |  |  |  |  |  |  |
| FLO [Comment] |  |  |  |  |  |  |  |  |  |  |

Fig. 14: CLAPI_Preparing-meal-together_Patapizza (227-233)
Conversely, when, at the beginning of an utterance, several ouais (or other little words) are attested without pauses or other specific prosodic cues, they are attached to the following element.
As for the hesitation marker (euh), it is attached by default to the preceding element, except when it occurs in turn-initial position and after a long pause.

## Vocalisations as Nuclei ("bruits-sons")

Nuclei can boil down to vocalisations.

| spkl[ortho] [v] | hm | hm |
| :--- | :--- | :--- |
| spkl [MU] | MU |  |
| spkl [N-AdN] | N |  |
| spkl [Phen] |  |  |
| spkl [Comment] |  |  |

Fig. 15: ESLO_Interview (1441-1442)

## AdNuclei

An adnucleus is a minimal ungoverned macrosyntactic unit depending on a nucleus, which contains a pivot on the microsyntactic level. The impossibility to apply a negative modality is due to its non-autonomous character:
a. il est trop âgé pour le poste de directeur je pense
b. *il est trop âgé pour le poste de directeur je ne pense pas/je pense pas Its position can vary within a maximal macrosyntactic unit (MU): at the periphery, before (prenucleus) or after (postnucleus) the nucleus, or inside (innucleus) the nucleus.

## Peripheral elements

## Prenuclei

Pre-positioned complements (French compléments antéposés) are not considered as prenuclei, except for cases when the complement is analysed as being beyond verbal government (French non régi).

|  | and in the end |  |  |  | the core | of my talk |  |  | will be |  |  | a little bit |  | on that \| |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| spkl [ortho] [v] | et | au | fond | - | $1^{1}$ | essentiel | de | mon | discours | va | porter |  | petit | peu | là | dessus |
| spkl [MU] | MU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| spkl [ N -AdN] | PreN |  |  |  | N |  |  |  |  |  |  |  |  |  |  |  |
| spkl [Phen] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| spkl [Comment] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fig. 16: ESLO_Conference (311-327)
In the example above (fig. 16), the element at the beginning (au fond, "in the end") is considered as an enunciative complement (adverbe de commentaire énonciatif, according to Riegel et al. 1994), dealing with the production of an entire utterance (and not with part of it). The connective et ("and"), traditionally seen as a coordinating conjunction, is the initial particle of the prenucleus. The subsequent pause is integrated to the adjunct.
Conversely, in the example below (fig. 17), the pre-positioned complement chez mes voisins ("at my neighbours'") is governed and therefore analysed as the first part of the nucleus (N_dis1), whose second part is introduced by the presentative y a (y a peut-être dix pour cent des des cent locataires euh qui viendront euh, "there is maybe ten percent of of the hundred tenants er who will come er", which is annotated as N_dis2). As a governed complement, chez mes voisins can occur in a cleft
structure: c'est chez mes voisins qu'y a peut-être dix pour cent des cent locataires qui viendront.


Fig. 17: CLAPI_Social-Meeting_MJC (1207-1233)
In the example below (fig. 18), the pre-positioned complement demain ("tomorrow", which is governed by the second verbal form manger) is part of the nucleus, and is thus analysed as the first part of a discontinuous nucleus (N_dis1). The complement can occur in a cleft structure: c'est demain que ça te dit qu'on aille manger dehors.
tomorrow \| seeing that we have only one hour to eat er \| do you fancy if we eat outside


Fig.18: CLAPI_Phone-call_CLE1 (28-47)
In the following example (fig. 19), the same complement (demain), which is produced at the end of an MU (si tu veux on avise demain), is part of the nucleus:

| well listen |  |  |  |  |  |  |  |  | if you want we decide tomorrow |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| FLO[ortho] [v] | ben | écoute | si | tu | velux | on | avise |  |  |
| demain |  |  |  |  |  |  |  |  |  |
| FLO [MU] | MU | MU |  |  |  |  |  |  |  |
| FLO [N-AdN] | PreN1 | N |  |  |  |  |  |  |  |
| FLO [Phen] |  |  |  |  |  |  |  |  |  |
| FLO [Comment] |  |  |  |  |  |  |  |  |  |

Fig. 19: CLAPI_Phone-call_CLE1 (406-413)

When a series of prenuclei is annotated, each segment is numbered progressively: preN1, preN2, etc.

## Postnuclei

Postnuclei are adjuncts to the nuclei and are right-positioned in an utterance. They are non-governed elements as in the example below (fig. 20):
oh no but I gonna I gonna tell you this several times I think

| FLO[ortho] [v] | ah | non | mais | je | vais | je | vais | te | la | ressortir | plusieurs | fois | je | pense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLO [MU] | MU |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FLO [N-AdN] | N |  |  |  |  |  |  |  |  |  |  |  | PostN |  |
| FLO [Phen] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FLO [Comment] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fig. 20: CLAPI_Preparing-meal-together_Patapizza (274-290)

The discourse marker je pense ("I think") is annotated as a postnucleus because it can also occur inside a nucleus, as an innucleus (see below): ah non mais je vais je vais je pense te la ressortir plusieurs fois.

| oh yeah |  |  |  | he said |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sar[0rtho][v] [v] ah ouais dit il <br> Sar[MU] [v] MU    <br> Sar[v] [AdN] N  PostN  <br> Sar[Phen] [v] DS    <br> Sar[Comment] [v]     |  |  |  |  |  |  |

Fig. 21: CLAPI_Social-meeting_MJC (2071-2074)
In the example above (fig. 21), the postposed reporting verb (dit-il, "he said") is a postnucleus following a nucleus (ah ouais, "oh yeah"). The macrosyntactic unit is thus composed of a nucleus and a right-positioned element.

## Inserted elements

## Innuclei

We consider innuclei as macrosyntactic sub-units that occur in the middle of a larger macrosyntactic unit.

Frequently, innuclei are inserted verbal constructions (see the notion of "propositional discourse marker", French marqueur discursif propositionnel, cf. Andersen 2007).

The following list (provided by the ORFEO annotation guidelines) presents the most common verbal innuclei in French. Alternative forms are in parentheses and a rough translation is proposed (see appendix for detailed examples):
mettons, disons, on va dire, si on peut dire: "let's say" allez: "come on"
je crois, je pense: "l think, I guess"
je sais pas: "I don't know"
je dirais: "l would say"
je veux dire: "I mean"
tu sais (vous savez): "you know"
tu vois (vous voyez): "you see"
tu me dis (tu m'as dit, vous me dites, vous m'avez dit): "you say, you said" il me semble: "it seems to me"
si tu veux (si vous voulez): "if you want" comment dire (comment dirais-je): "how can I say, how can I put it"

More generally, verbal constructions of this sort can be considered as adnuclei, insofar as they occur not only in the middle of a nucleus, but also at the beginning as prenuclei or at the end as postnuclei.

Discourse markers and connectives in initial position (ligateurs, according to Morel \& Danon-Boileau 1998, such as donc, bon, eh bien, etc.) are not considered as prenuclei. They are therefore not annotated as innuclei when they occur in a middle position.


Fig. 22: ESLO_Conference (1365-1385)
In the excerpt above (fig. 22), the adverbial group au fond ("in the end") is annotated as an innucleus and is inserted within a larger nucleus, which consists of two discontinuous nuclei ( N _dis1 and N_dis 2). Disfluencies at the beginning (le le vin, "the the wine") and in the middle (au d'un point de vue, "in from a point of view") are part of the nucleus, as well as hesitations (euh) and the final particle (hein).

## Maximal Macrosyntactic Units

A maximal macrosyntactc unit is composed at least by a nucleus, which can be extended by one or several adnuclei. For example, a prenucleus, a nucleus and a postnucleus, as shown in the excerpt below (fig. 23):

|  |  | $1 /$ in | case |  |  |  |  |  | e same |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELI[ortho] [v] | bon | en | tout | cas | ça | fait | plaisir | $\mathrm{n}^{\prime}$ | empêche | quoi |
| ELI [MU] | MU |  |  |  |  |  |  |  |  |  |
| ELI [ N - AdN ] | PreN |  |  |  | N |  |  | PostN |  |  |

Fig. 23: CLAPI_Table-talk_Kiwi (564-574)

A macrosyntactic unit is at (the very) least constituted of a nucleus, which can be a verbal construction and even a noun phrase.

## Discontinuous Macrosyntactic Unit

A discontinuous macrosyntactic unit is a unit that is momentarily suspended by another maximal macrosyntactic unit, namely a parenthetical MU. The discontinuous unit is completed after the realisation of the parenthetical unit.

## Parenthetical Macrosyntactic Unit

A parenthetical unit is an insertion within a larger macrosyntactic unit. Parenthetical units can occur in series. In this case, each parenthetical unit corresponds to an utterance (i.e. a nucleus).

I had | but now it's over | it will also be for after the summer holiday | a debate on nutrition

| Paul[ortholvi lv] | j' | ai | - | j' | avais | mais | maintenant | $c^{\prime}$ | est | terminé | ¢̧a | sera | aussi | pour | la | rentrée |  | un | débat | sur | la | nutrition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Paul ${ }^{\text {MU }}$ [ v$]$ | MU_dis1 |  |  |  |  | MU_par 1 |  |  |  |  | MU_par2 |  |  |  |  |  |  | MU_dis2 |  |  |  |  |
| Paulv] [AdN] | N_dis1 |  |  |  |  | N |  |  |  |  | N |  |  |  |  |  |  | N_dis2 |  |  |  |  |
| Paul[Phen] [v] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Paul[Comment] [v] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fig. 24: CLAPI_Social-Meeting_MJC (1388-1411)
In this excerpt (fig. 24), the main verb (j'avais, "I had") is separated from the object (un débat sur la nutrition, "a debate on nutrition"). The two in-between parenthetical sequences are constituted of two different nuclei (mais maintenant c'est terminé, "but now it's over"; ça sera aussi pour la rentrée, "it will also be for after the summer holiday"). Within a series, each parenthetical sequence is numbered progressively: MU_par1, MU_par2, etc.

Note that segmentation relies exclusively on syntactic criteria (and not on prosodic cues). The elements within the parenthetical sequence(s) are not governed by the surrounding elements. Parenthetical sequences are verbal constructions possessing an illocutionary force (as opposed to innuclei, verbal constructions not possessing an illocutionary force: see above).

## Collaborative Macrosyntactic Unit

Collaborative configurations can be the result of syntactic co-constructions, when a first speaker produces a macrosyntactic unit (abandoned or not) and a second speaker produces its syntactic completion.


Fig. 25: CLAPI_Table-talk_Kiwi (637-647)

In the excerpt above (fig. 25), Béatrice produces a first MU (ben par, which is abandoned and syntactically incomplete), then she utters a complex MU (ah non toi on s'est croisées, "oh no you we met"), which is eventually completed by Marion (dans le métro ouais, "in the underground yeah"). The last two units represent a collaborative configuration and are labelled as MU_coll1 and MU_coll2, respectively. In this case, it is interesting to note that MU_coll1 (ah non toi on s'est croisées) is a potentially complete syntactic construction, which is composed by a prenucleus (toi, "you", plus the initial particles ah non that are produced continuously) and a nucleus (on s'est croisées is a well-built (macro)syntactic unit). MU_coll2 can be considered as a delayed realisation of a complement (epexegesis, here produced by another speaker). Ouais in final position is attached to the nucleus (once again, the lack of a pause in between and the continuous prosody are segmentation criteria).
come dine with me


Fig. 26: CLAPI_Table-talk_Kiwi (525-541)

## Abandoned Macrosyntactic Unit

An abandoned macrosyntactic unit is an unfinished construction from a syntactic point of view (fig. 27).

| oh well |  |  | anyway |  |  | from the moment er \| |  |  |  |  |  |  |  | it's funny \| |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELI [ortho] [v] | oh | ben | de | toute | façon | à | partir | du | moment | où | euh |  | - | $\mathrm{c}^{\prime}$ | est | rigolo |  |  |
| ELI [MU] | MU_b ${ }^{\text {b }}$ |  |  |  |  |  |  |  |  |  |  |  |  | MU |  |  |  |  |
| ELI [ ${ }^{\text {d-AdN }}$ ] | N_ab |  |  |  |  |  |  |  |  |  |  |  |  | N |  |  |  |  |
| ELL [Phen] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ELI [Comment] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fig. 27: CLAPI_Table-talk_Kiwi (393-413)
Here, Elise produces a first utterance "well anyway from the moment er" (ben de toute façon à partir du moment où euh), which is unfinished. This first utterance is made up of one prenucleus and an abandoned nucleus (as à partir du moment où is considered as governed: see below) where the governing element is nonetheless absent. After a long pause, the subsequent unit consists only of a nucleus (c'est rigolo, "it's funny").

## Graft phenomena

A graft (Deulofeu 2010) is a verbal construction produced, in the place of another category, in a governed position.

## i) Direct Speech

What constitutes a direct speech unit could normally act as a macrosyntactic unit, in a non-reporting speech context. Yet, direct speech and the introductory sequence, which consists of a verbum dicendi, form a macrosyntactic unit (only) together. In other words, direct speech is analysed as part of the MU. It figures as a graft (in particular, a direct speech sequence, DS in abbreviated form) in a third tier (called Phen). The resulting configuration illustrates a specific phenomenon (for example called "clause complex" by M.A.K. Halliday 1994).
look I wanted to ask you
tomorrow seeing that we have only one hour to eat er do you fancy if we eat outside

| ANA[0rtho] [v] | dis | je | voulais te | demander | demain vu | que | on | a | qu' | une | heure |  | manger | euh | ça | te | dit | que | on | aille | manger | dehors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANA [MU] | MU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANA [N-AdN] | PreN |  |  |  | N_disl InN |  |  |  |  |  |  |  |  | N_dis2 |  |  |  |  |  |  |  |  |
| ANA [Phen] |  |  |  |  | DS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANA [Comment] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fig. 28: CLAPI_Phone-Call_Cle1 (22-47)

Here (fig. 28), the verbum dicendi demander ("to ask") introduces a direct speech sequence (demain vu que on a qu'une heure pour manger euh ça te dit que on aille manger dehors), which consists of a discontinuous nucleus in two parts (see above for a detailed analysis of this excerpt) and an innucleus. Note that the verbum dicendi is part of the first nucleus je voulais te demander ("I wanted to ask you"), which is preceded by the verbal particle dis (translated by "look", literally: "tell").

Direct speech sequences can be quite complex as well as the preceding structures, which contain verba dicendi.
make a living my father had told us
guys as you wish but if you are not careful you will end up in a factory


Fig. 29: ESLO_Interview (1789-1820)

In the example above (fig. 29), the first nucleus mon père nous avait dit ("my father had told us") is preceded by a hanging topic, i.e. a prenucleus, which is an infinitive phrase (gagner sa vie, "make a living"). The direct speech sequence is then made up of the noun phrase les gars (guys"), which represents a prenucleus and projects the nucleus comme vous voulez ("as you wish"). Another nucleus, introduced by the connective mais ("but"), is present at the end of the embedded sequence (note that there is no prenucleus as this kind of if-construction is considered as governed according to Sabio 2013): mais si vous faites pas attention vous vous retrouvez à l'usine ("but if you are not careful you will end up in a factory"). Again, the whole configuration represents a maximal macrosyntactic unit.

## ii) Other cases

In cases other than direct speech, a governed syntactic element may not be realised through the expected component and a verbal construction occurs in the place of noun phrases, prepositional phrases, etc., thus representing a macrosyntactic insertion at the interface with microsyntax (Deulofeu 2010).
because it is a software
that costs I don't know how much
they they will not lend them for training


| ELI[ortho] | parce | que | $\mathrm{c}^{\prime}$ | est | un | logiciel | qui | vaut | je | sais | pas | combien | ils | vont | pas | leur | prêter | pour |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELI[MU] | MU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ELI[N-Adj] | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ELI[Phen] |  |  |  |  |  |  |  |  | Graft |  |  |  |  |  |  |  |  |  |

Fig. 30: CLAPI_Table-talk_Kiwi (1928-1954)
In the example above (fig. 30), Elise produces a macrosyntactic unit and a graft is annotated in the phenomena tier. More specifically, the cleft structure c'est un logiciel qui vaut je ne sais pas combien ("it is a software that costs I don't know how much") contains a graft sequence, which occupies a syntactic slot that would have been reserved to the price of the software, normally expressed through a noun phrase (e.g. c'est un logiciel qui vaut dix mille euros, "it is a software that costs ten thousand euros").

## Series of Nuclei within a Macrosyntactic Unit

Syntactic configurations with two introductory elements related to each other are annotated within the same macrosyntactic unit. This is the case for elements like soit... soit... ("either... or...", see fig. 31) or plus... plus... (such as in the example: plus il mange plus il grossit, "the more he eats the more he puts on weight"). These macrosyntactic configurations have been studied as "conjoined structures" (in French constructions siamoises, see Blanche-Benveniste et al. 1990, Savelli 1993).
er in fact it's either one thousand euros or there is another solution

| Clai[0rtho][v] [v] | euh | en | fait | $c^{\prime}$ | est | soit | mille | euros | soit | y | a | aussi | une | autre | solution |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clai[MU] [v] | MU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clailv] [AdN] | N1 |  |  |  |  |  |  |  | N2 |  |  |  |  |  |  |
| Clai[Phen] [v] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clai[Comment] [v] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fig.31: CLAPI_Social-meeting_MJC (2234-2248)
In this case, though the former soit does not occur in the initial position of the first nucleus, it links this first nucleus to the second one, where another soit occurs. This is the criterion for the grouping of several nuclei within the same macrosyntactic unit. Every single nucleus is numbered in a progressive way (N1, N2... Nn).

## BEYOND MACROSYNTAX

## Series of Macrosyntactic Units

When there is a series of nuclei, i.e. verbal or nominal constructions that are not governed, every single nucleus is considered as a macrosyntactic unit, as is the case in the example below (fig. 32):

I have verbal interaction on Mon- on Monday afternoon on Tuesday i have no classes
on Wednesday I have er what do I have I have syntax

| ELI[ 0 orthol lv | i' | ai | interaction | verbale |  | Iun- | 1 l | Iundi | après |  | mardi ji' | ai | pas | cours | 1 l | mercredi $\mathrm{j}^{\text {' }}$ | ai | euh | qu | est | ce | que | i' | ai | j' | ai | syntaze | bon |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELIMU] | MU |  |  |  |  |  |  |  |  |  | MU |  |  |  | MU_dis1 |  |  |  | MU_par |  |  |  |  |  | MU_dis2 |  |  |  |
| ELI [ N -AdN ${ }^{\text {d }}$ | N |  |  |  |  |  |  |  |  |  | N |  |  |  | N_dis1 |  |  |  | N |  |  |  |  |  | N_dis2 |  |  |  |
| ELI [Phen] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ELI[Comment] | Series of MU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | interuption of the series |  |  |  |  |  | Contimation of the series |  |  |  |

Fig. 32: CLAPI_Table-talk_Kiwi (928-961)

Here, there are several nuclei, which correspond to several macrosyntactic units: a series of MUs. The nuclei are characterised by a similar syntactic construction and lexical items belonging to the same semantic field, [day of the week] Time Adjunct $+j$ jai + $[\mathrm{X}]_{\text {Direct }}$ object, with the exception of one abandoned nucleus (without a direct object) and the nucleus qu'est ce que j'ai (English "what do I have").

## Commentary tier

A supplementary tier is introduced in order to take into account cases beyond macrosyntax and cases for segmentation discussion.

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## APPENDIX

## List of innuclei

Here below, we present a list of the most common discourse markers that can occur as innuclei. The following examples have been provided by the ORFEO annotation guidelines. Innuclei are in red:

```
mettons
demain à partir (mettons) en fait de treize heures s'il vous plaît
disons | dites | dis
on pourrait hum (disons) attendre le le conducteur
allez
on va lui dire (allez) d'ici euh une quinzaine de minutes
je crois
c'était (je crois) sur la ligne cinq
je pense
elle a été verbalisée (je pense) dans un bus
je sais pas
il a eu en fait euh (je sais pas) apparemment une indemnité forfaitaire
je dirais
essayez (je dirais) peut-être en début d'après-midi ça sera mieux
je veux dire
c'est tellement plus simple (je veux dire) de bon ben de prendre le client
tu sais | vous savez
une paire de lunettes un peu (vous savez) un peu comme rectangulaires
tu vois | vous voyez
c'était à peu près au niveau (vous voyez) de Saint Germain l'Auxerrois
tu me dis | tu m'as dit | vous me dites | vous m'avez dit
et vous êtes descendue (vous me dites) au niveau du centre commercial
on va dire
vous allez utiliser la le passe (on va dire) de manière régulière ou occasionnelle
il me semble
je suis rentrée dans le bus (il me semble) sept cent trente-cinq
si tu veux | si vous voulez
j'ai un petit problème euh concernant euh (si vous voulez) un ticket que j'ai introduit
si on peut dire
mercredi c'était férié ben ce matin le trafic (si on peut dire) normal
comment dire | comment dirais-je
il y a (comment dire) une marque euh quelque chose
arrête | arrêtez
arrête c'est pas vrai
```

attends | attendez
à vrai dire
bien entendu
écoute | écoutez
n'empêche
regarde | regardez
remarque | remarquez
tiens
tu parles


[^0]:    ${ }^{1}$ http://www.projet-rhapsodie.fr
    ${ }^{2}$ http://www.projet-orfeo.fr

