

Contours as constructions*

1. Introduction

The overall aim of this paper is to apply a constructional approach to the analysis of Intonation. I propose to construe contours as constructions on a par with lexical and syntactic constructions in the sense of Construction Grammar (CxG). From the perspective of CxG, a construction is a multidimensional construct that articulates the general principles of Language with the idiosyncratic aspects of each language. The assumption that there is no sharp divide between Universal Grammar and the grammars of individual languages explains the steadfast emphasis laid on idioms or idiomatic aspects of language among the proponents of CxG. As Kay puts it, “the major empirical motivation for Construction Grammar is the need to develop a system of grammatical description in which the marked constructions (more or less ‘idiomlike’ forms of expressions) are represented in the same formal system as the regular, ‘core’ patterns or rules” (Kay 1998: 1). Recently, inheritance trees have been proposed as the main formal tool for holding together, as well as for sorting out, the general and the idiosyncratic features of the units that make up the grammars of natural languages.

Here, I propose to set up an inheritance hierarchy for French contours comprehensive enough to account both for the unmarked contours that belong to the intonational lexicon of French and the stylized contours that have long been considered the equivalent of lexico-syntactic idioms in Intonation.

The paper proceeds as follows. In Section 2, I define the notion of contour and, briefly, present the set of contours proposed in Beyssade *et al.* (2004a), Marandin *et al.* (2004). In Section 3, I introduce the notion of stylization proposed by Ladd (1978) to account for stylized contours or *clichés mélodiques*. The thrust of Ladd’s analysis is to put forward the features shared by all stylized contours and the features they share with non-stylized contours. In Section 4, I propose an inheritance hierarchy for French contours. In section 4.1, I deal with basic contours and show how the hierarchy can be structured according to the levels of contrast between them; in section 4.2, I propose a bi-dimensional hierarchy that makes room for stylized contours.

2. Contours

Intonation makes up one of the components of Prosody, along with Phrasing and Accentuation. “Intonation refers to the use of suprasegmental phonetic features to convey ‘postlexical’ or *sentence-level* pragmatic meanings in a linguistically structured way” (Ladd, 1996: 6). Contours are posited to account for a class of “suprasegmental phonetic features”, i.e. those pertaining to fundamental frequency (F_0).¹ The variations of F_0 give rise to the

* The analysis presented in this paper is based on collaborative work on French intonation with Claire Beyssade, Elizabeth Delais-Roussarie, Michel de Fornel and Annie Rialland. Any misconceptions or errors in the analysis of intonative stylization is mine only. I thank two anonymous referees for their sharp and supporting reviews, and Elizabeth Delais-Roussarie for discussing the implications of this proposal for the study of Intonation and Prosody.

¹ I use *contour* in the same sense as *intonational tunes* or *tunes* in Ladd (1996: 206).

melody associated with utterances. Contours are defined as representing the regular melodic patterns associated with utterances. Contours may be compared to phrase-structure rules: they generate melodic patterns just as phrase-structure rules generate the constituent structure of phrases.

2.1. Contours in the Autosegmental Metrical framework

In the Autosegmental Metrical framework (AMT) (a. o. Pierrehumbert (1980), Ladd (1996)), contours are analyzed as strings of discrete elements, i.e. level tones (or *tones*) that are pitch targets of two types High (H) and Low (L).

Moreover, High and Low tones are distinguished according to their anchoring sites, resulting in the following dichotomy: (a) edge tones that are anchored at edges of prosodic phrases (phrasal tones, boundary tones) and (b) pitch accents that are anchored on designated syllables. In French, designated syllables are specified metrically; they are the rightmost and the leftmost metrical syllable of prosodic phrases.² Edge tones may be associated with designated syllables (leftmost or rightmost), but pitch accents are associated with rightmost metrical syllables only (Dell (1984), Di Cristo (2000), Delais-Roussarie (2005)).

A contour is made up of at least two tones and can be analyzed either as having an internal structure (as is the case in the British tradition) or as a simple string of tones.³ The latter is assumed here, but this does not have much bearing on the current proposal. The terms and concepts just defined are illustrated with example (1).

(1) [Lab. data]

A. : Qu'est-ce qu'il a fait à Paris?
What did he do in Paris ?

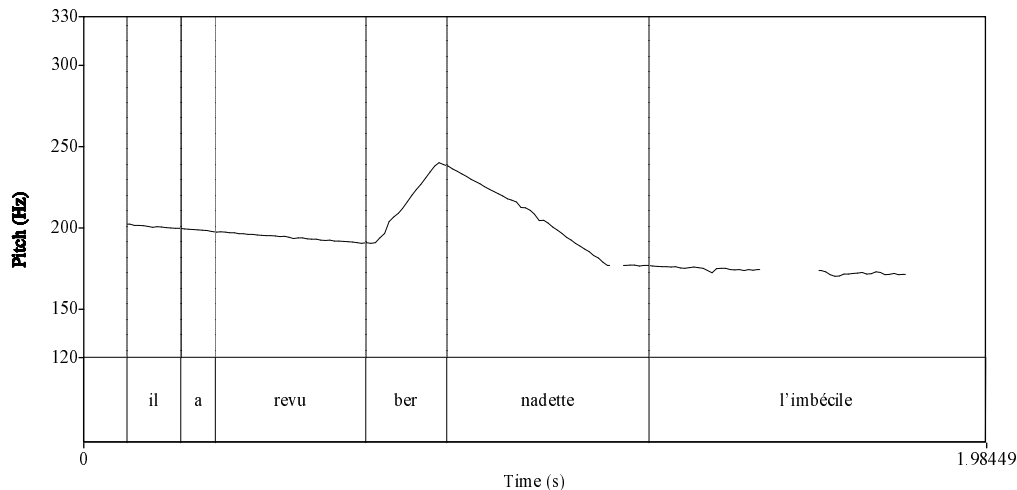
B. : Il a revu Bernadette, l'imbécile
He met Bernadette, the fool

Speaker B's answer in (1) is uttered with a falling melody -- a melodic pattern fairly frequent in French. This is represented in (2), the curve showing the variation in pitch.

(2)

² Syllables whose nucleus is a schwa and leftmost syllables of words which have no onset are not considered metrical syllables in French. French differs from English where designated syllables are specified both lexically (lexical stress) and metrically.

³ Two strategies have been followed to come up with lists of contours for given languages. The former relies on the formal decomposition of melodic patterns only (Pierrehumbert (1980) for English, Post (2000) for French). The latter uses contrasts in meaning as well; it assumes a definition of contour that associates a form and a meaning (Delattre (1972), Ladd (1996)): "overall contours with distinct shape convey distinct intonational meaning" (Ladd, id: 153). Here I abide by the latter.



We describe its regularity firstly by positing the falling contour in (3) which accounts for the portion of utterance *Bernadette l'imbécile* and secondly, by relating tones and syllables as shown in (4).

(3) H- L* (L%)

(4) Anchoring :

Il a revu Bernadette l'imbécile
 ↑ ↑ ↑
 H- L*L% L%

The contour (3) is defined as a string of three tones: a High phrasal tone (H-) on the left, a Low pitch accent (L*) and a low boundary (L%) on the right. Each anchoring line (see 4) specifies the quality in pitch of the targeted syllables. The Low pitch accent is associated with the metrically most prominent syllable “dette” in *Bernadette*. The High phrasal tone H- goes to the left edge of the domain: it is 'docked' on “ber” (in *Bernadette*) and the Low boundary tone (L%) goes to its right edge: it is 'squeezed' on “dette” (also in *Bernadette*). It has been proposed (a. o. Beyssade *et al.* (2004b)) that the boundary tones are copied onto postfocal or right-dislocated constituents to the right. This would account, in (4), for the low realization of the appendix melody associated with *l'imbécile*.⁴

Contours such as (3) are sensitive to the ground-focus articulation: they span over the rightmost portions of utterances that contribute the focal content -- thus called the focal domain. In (1), the whole of the utterance *il a revu Bernadette* constitutes the focal domain. The NP *Bernadette* occupies its rightmost part and provides the anchoring sites for the tones making up the falling contour (3).⁵ The melody associated with *il a revu* is regular too. I will not account for it in the present proposal: it would require an in-depth analysis of the different types of continuative rises, a matter which is far from settled.

⁴ The postfocal constituents *au juge pendant sa garde* in (6) below receive the same analysis.

⁵ Note that another anchoring would be well formed (associated with a more rapid flow of speech) requiring, however, another metric construct of the utterance: in this case, H- would be associated with “vu” (in *revu*), the anchoring of L* and L% being unchanged. This is a characteristic of focus marking in French: only the right edges of focal domains are marked.

2.2. Contours in French

The present proposal is restricted to the contours that are associated with the rightmost portion of focal domains in utterances; they shall be referred to hereafter as *final contours*.⁶ The pitch accent is anchored on the designated syllable of the rightmost lexical unit in the domain. Two configurations arise: (a) in all-focus utterances, the right edge of focal domains coincides with the right edge of the sentence; (b) in utterances with narrow focus (i.e. featuring a partition of their content into background and focus), the right edge of focal domains coincides with the right edge of the constituent that contributes the focus. This is illustrated in (5) and (6) below, both instances featuring the falling contour introduced in (3) above:⁷

In (5), B's answer is an all-focus utterance: the L* is realized on the last metrical syllable ("gar" in *garde*) of the utterance:

(5) [Lab. data]

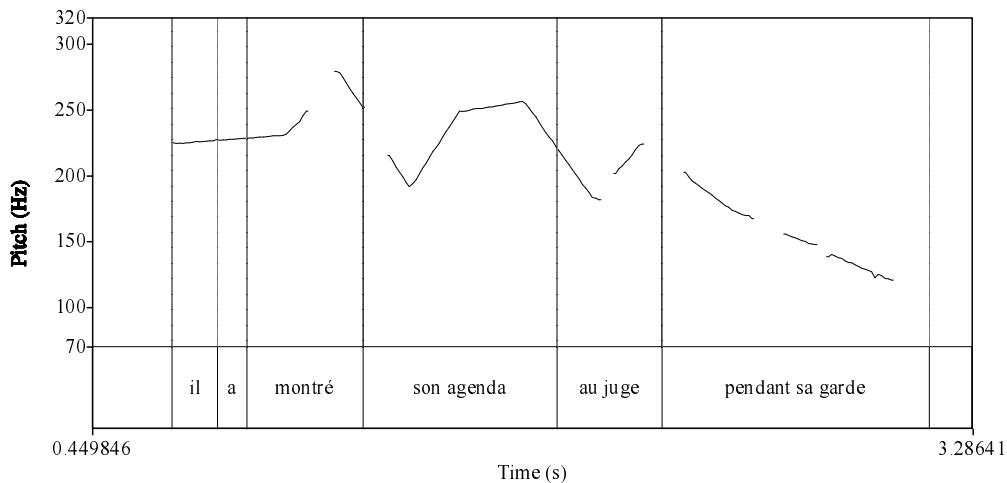
a. A: Qu'est-ce qu'il a fait ?
'What did he do ?'

B: Il a montré son agenda au juge pendant sa garde
He showed his diary to the judge during his custody

b. Anchoring:

Il a montré son agenda au juge pendant sa garde
 ↑ ↑ ↑ ↑
 hc hc H- L*L%

c. F₀ curve:



In (6), B's answer is an utterance with narrow focus (the NP *son agenda*): the L* is realized

⁶ *Final* in *final contour* is only a label, it should not be interpreted as meaning 'occurring at the end of utterances'. It turns out that final contours are often associated with the rightmost portion of declarative utterances in everyday conversation because most declarative utterances are all-focus in such context.

⁷ The corpus on which this study is based is made up of everyday speech (mainly phone calls), radio or TV talk shows, playlets recorded in the laboratory, data discussed in the French literature and the sound track of Arnaud Desplechin's movie *Léo, en jouant dans la compagnie des hommes*. I thank *Why not Production* and Arnaud Desplechin for allowing me to use and quote this material.

on the last syllable of *agenda* (“da” in *agenda*).⁸

(6) [Lab. data]

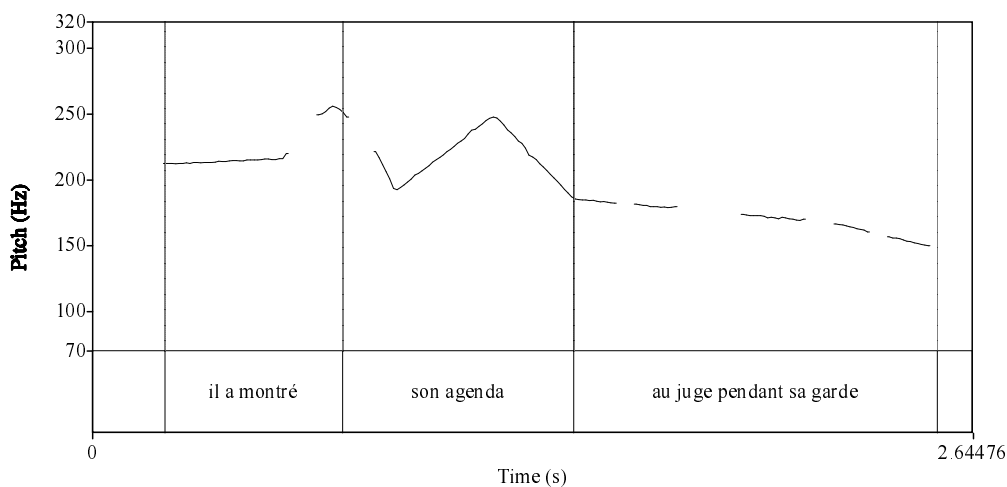
a. A: Qu’est-ce qu’il a montré au juge pendant sa garde ?
What did he show the judge while in custody?

B: Il a montré son agenda au juge pendant sa garde
He showed his diary to the judge while in custody

b. Anchoring:

Il a montré	son agen	da	au juge pendant sa garde
↑	↑	↑	↑
hc	H-	L*L%	L%

c. F₀ curve:

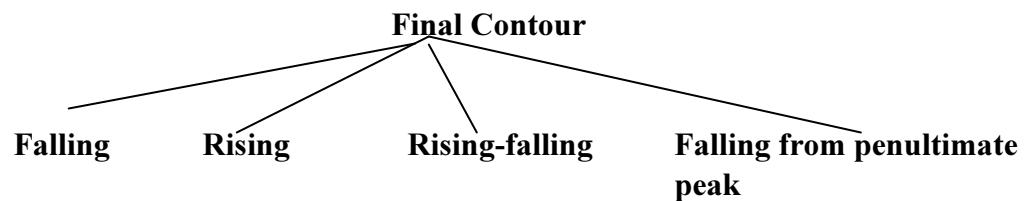


In French, four final contours can be identified (Beyssade *et al.* (2004a), Marandin *et al.* (2004)). They are essentially characterized by the pitch movement from the phrasal tone (T-) to (and inclusive of) the pitch accent (T*). This is in keeping with Post’s (2000) inventory, recently receiving further support from Portes’ (2004) corpus study.⁹

⁸ The symbole « hc » signals a continuative rise; it is left unanalyzed in (5b) and (6b).

⁹ There are obvious differences in the discovery strategies and the formal analysis of the pitch dimension in Post’s and in the present proposal. Post (*ibid.*: 150) proposes an inventory of ten pitch movements: three IP-internal (Intonation Phrase-internal) and seven IP-final movements. Her analysis resorts to three tones (High (H), Low (L), and Mid (M)) and four directions (Rising, Rising-falling, Falling and Falling from penultimate peak). This yields movements such as Rising to H(igh), Rising to M(id), Falling to L(ow), Falling to M (etc). She observes that Falling from penultimate peak does not show up IP-internally, that Mid realizations do not occur IP-internally and that the Rising-Falling movement does not give rise to a Mid realization; I will come back to this last gap below. It is possible to reconcile Post’s and the proposal in (5) as follows. Firstly, direction is considered as the main feature of the contours: there are as many contours as directions, viz. four. Then, the Mid realization of High and Low tones is not analyzed with a primitive Mid tone that could enter the decomposition of basic contours: hence, we do not posit eight basic contours. As we shall see, stylization is one of the factors that triggers Mid realization of High or Low tones. Finally, one posits that pitch movements occurring at the right edge of phrases in the portion of utterances contributing background content or within the focal domain should be analyzed differently from the movements that occur at the right edge of focal domains, even if they can be decomposed in the same sequences of tones. This is why the present proposal is restricted to contours associated to the right portion of focal domains, be they IP-internal or IP-final.

(7)



The contours' decomposition into tones is presented in (8). This follows Di Cristo's (2000) analysis of accentuation in French rather than Post's (2000).¹⁰

- (8)
- | | |
|---|------------------|
| a. Falling contour: | H- ... L* (T%) |
| b. Rising contour: | L- ... H* (T%) |
| c. Rising-falling contour: | L- ... HL* (T%) |
| d. Falling from a penultimate peak contour: | L- ... H+L* (T%) |

In (8c), the symbol HL* stands for a tone which is realized as a rising-falling pitch movement on the same syllable; in (8d), the symbol H+L* stands for a tone which is realized as a peak on the penultimate syllable and a fall on the designated syllable (the rightmost metrical syllable in the relevant phrase).

2.3. The meaning of contour

It is commonly assumed that contours have a meaning and that this meaning is grammaticalized. However, in the perspective of the AMT, there is no consensus about the dimension of meaning conveyed by contours and whether these meanings are compositional or not.¹¹

As to the dimension of meaning, it is now safe to assume that contours are not illocutionary force markers. This accounts for two facts: (a) prototypical assertions, questions and commands are uttered with a falling contour in French and (b) the use of declarative sentences as requests for confirmation does not require a rising contour in French (when the right contextual conditions hold).¹² The latest studies of English and French contours converge towards the idea that contour meaning is mostly sensitive to interactive (dialogical) factors such as commitment of the speaker, speaker's attribution of commitment or belief to the addressee (Bartels (1999), Gunlogson (2002), Steedman (2003)). We adopt such a view to account for the meaning of French contours below (§4.1).

¹⁰ Contrary to Beyssade *et al.* (2004a), I assume that boundary tones (T%) are not compulsory. Note that the overall proposal pertaining to stylization presented below does not rely intrinsically on the formal analysis of the contour given in (8).

¹¹ Nevertheless, most AMT proponents agree to some extent with the 'Linguist's Theory of Intonational Meaning' (as Ladd calls it): "the elements of intonation have meaning. These meanings are very general, but they are part of a system with a rich interpretative pragmatics which gives rise to very specific and often quite vivid nuances in specific contexts" (Ladd, 1996: 39).

¹² The same has been observed in English (a.o. Gunlogson (2002)) and Dutch (Beun (1990)).

As to the compositional or holistic character of intonational meaning, the idea that contour meaning is a function of the meanings of the tones making them up is defended by most AMT proponents. One of the best developed compositional approaches to English has been proposed by Bartels (1999); she proposes that:

- pitch accents convey information about the activation status of the content,
- phrasal tones convey information about assertiveness, an attitude of the Speaker and,
- boundary tones convey information about the interpretation of the utterance relative to the current discourse.

To our knowledge, the issue of whether contour meaning is compositional or not in French has not yet been addressed in an AMT perspective (Post (2000) only presents a formal inventory of contours).

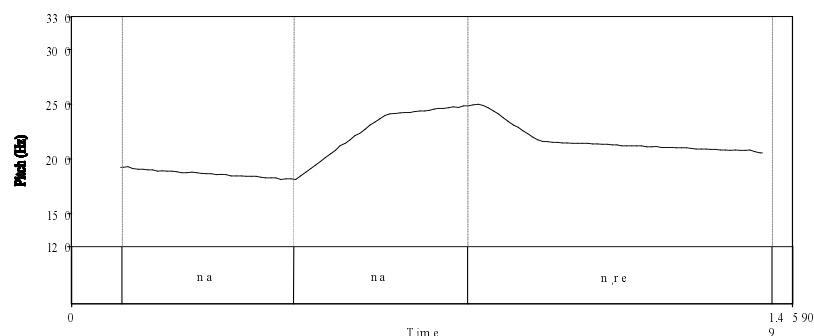
Marandin *et al.* (2004) have reached the provisional conclusion that contour meaning cannot be analyzed by combining the meanings of the constituent tones. This conclusion is supported by three empirical arguments. Firstly, the meanings that could be associated with the pitch accents H*, HL* or H+L* should be restricted to the final contours they are part of, since they do appear elsewhere as continuative rises with a metrical/demarcative function and no specific meaning. Secondly, since each pitch accent only occurs in one single contour, there is no way to decide whether its putative meaning is associated with the contours or with the tones alone. Lastly, if only final contours are considered, specific meanings cannot be associated with the contrast « Low vs High » for the phrasal tones realized within the left portion of the focal domain nor with the boundary tones at the right edge. Concerning the latter, we did not observe systematic contrasts in terms of discourse continuation or directionality of interpretation -- the two values that have been proposed for English boundary tones -- in French utterances taken from everyday or formal conversations. Henceforth, I assume that contour meaning is not composed by combining tone meanings. In other words, contours are holistic semantic units.

3. Stylization

3.1. Melodic clichés

It has long been observed that there are melodies with specific phonetic features, restricted conditions of use and what seem to be idiosyncratic meanings. They are called *clichés mélodiques* in the French descriptive tradition. In fact, they are defined in the same way that lexico-syntactic idioms (*expressions figées*) are. One of the most discussed *cliché mélodique* is associated with children's taunts *nananère* (or : *nanana, bisque bisque rage*). The melody is illustrated in (9): three level "terraces" in pitch can be identified, the highest being associated with the penultimate syllable.

(9) [Lab data]



Its meaning is reputedly hard to define. Ladd summarizes the French tradition as follows: “the additional meaning [...] is exceedingly difficult to describe in words: it seems to be best characterized as the vocal equivalent of shrugging the shoulders” (Ladd, 1996: 140). As for Dell (1984: 66), the melody “presents the sentence as an incredulous or disapproving reply to someone else’s statements” (Ladd’s translation, *ibid.* : 140). Indeed, this latter gloss is closer to the intuition of native speakers.

3.2. Idioms in general

Some linguists, even when working in mainstream Transformational Grammar, have argued against the view that lexico-syntactic idioms should be relegated to the lexicon with other unanalysable units (a. o. Nunberg (1978), Ruwet (1983)). They claimed that the analysis of idioms could shed light on the working of language and strove to discover their regular features, be they formal or semantic.¹³

Concerning their syntactic features, it has been shown that idioms abide by all or some of the well-formedness constraints on constituency or word-order. As to their semantic construal, it has been shown that their meaning is partly compositional: most idioms retain some aspects of the meaning of their constituents. For example, the French idiom *casser sa pipe* (literally, ‘to break one’s pipe’) retains the aktionsart features of *casser*, in particular, its punctual feature. This feature is not shared by *mourir* (‘to die’), which is supposed to be synonymous. This is reflected in the different distribution of *mourir* and *casser sa pipe* as is shown by the contrasts in (10):¹⁴

- (10) a. Ney est mort subitement / Ney a subitement cassé sa pipe
Ney suddenly died / Ney suddenly broke his pipe
b. Ney est mort lentement et péniblement / ? Ney a lentement et péniblement cassé sa pipe
Ney died slowly and painfully / Ney slowly and painfull broke his pipe
c. Ney est mort des suites d'une longue maladie / ?? Ney a cassé sa pipe des suites d'une longue maladie.
Ney died of the consequences of a long disease / Ney broke his pipe as a consequence of a long disease

This paved the way to the view, now shared in many grammatical frameworks, that idioms are regular expressions that are submitted to a greater number of constraints and, among them, to constraints that are less general than those which apply in regular expressions.

3.3. Stylization

Ladd (1978) considers an idiomatic melody that has been much discussed in the British and American literature, the so-called “calling contour”, illustrated in (11) (in Ladd's presentation).

- (11) an--
 der --
 Alex

Ladd chooses to analyze idiomatic melodies just like lexico-syntactic idioms: idiomatic melodies are no monsters, they should be analyzed as contours with special properties.

¹³ In this respect, it is interesting to remember that contours were enlisted in the defense of the Deep Structure Hypothesis by Chomsky (1972).

¹⁴ (10) puts together Ruwet’s (1983 : 7) examples 9 and 10.

First, Ladd shows that the melody in (11) is not restricted solely to the functions of calling or warning and, consequently, that its form cannot be explained by the fact that it should be uttered in a situation in which the speaker is at a distance from the addressee. Secondly, he emphasises the fact that it ‘sounds special’ because the speaker ‘holds the notes’ and does not ‘glide’ them: there is no gradual transition from one level of pitch to the other. Metaphorically, the melody rises or falls by successive terraces. The phenomenon is known as *level pitch*. Thirdly, there are other contours that sound special and are also associated with special conditions of use: their common feature precisely pertains to the use of level pitch. This is the case for the ‘*nananère* contour’ of French as shown in (9).

Ladd proposes to consider level pitch as the general feature of a type of contour, viz. stylized contours (SC). “The diagnostic characteristic of stylized intonation is level pitch, other features (such as chanting voice quality, prolonged syllables, and fixed pitch intervals) are present to different extents reflecting different degrees of stylization” (Ladd 1978: 530). Moreover, Ladd proposes that SCs share a pragmatic characteristic: “the semantic common denominator conveyed by stylized intonation is predictability or stereotype. [...] The stylized intonations are appropriate for stereotyped or stylized situations: clerk and customer, or strangers passing in a crowd. If real thanks or real apologies are intended, we must use the intonation that says we mean it” (ibid.: 524). This explains why an emergency call or an insistent call after a series of unsuccessful calls -- in short, calls that matter -- would never be uttered with a contour such as in (11).

Ladd concludes his proposal by saying that SCs “are plain intonations with something added (a modification of more basic contours ..)” (ibid.: 535). This accounts for the shape of stylized contours: SCs are plain contours that are realized with level pitch instead of gradual transitions. This leaves their restricted use to stereotyped situations unaccounted for. Ladd’s proposal is summarized in (12).

- (12) Stylized contours:
- a. Common formal feature: level pitch;
 - b. Common pragmatic feature: used in stereotyped situations.

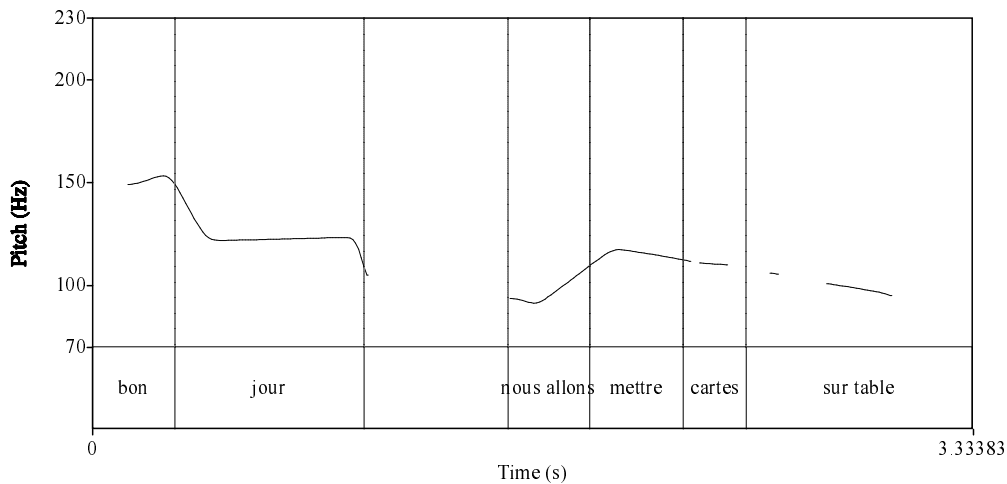
The formal characterization (12a) will be kept unchanged in the proposal below, but the pragmatic constraint (12b) will be revised in the following section.

3.4. Revisiting the meaning of stylization

First, it should be observed that stylized contours are not restricted to “stereotyped contexts”. Consider utterance (13).¹⁵

- (13) [Movie dialogue]
Amher : Bonjour, nous allons mettre cartes sur table
Good morning, we are going to put our cards on the table

¹⁵ Utterance (13) is extracted from Arnaud Desplechin's movie *Léo, en jouant dans la compagnie des hommes*. Amher speaks to the heir of an arms tycoon; he is going to break the news of a takeover bid that will ruin him as well as his father.

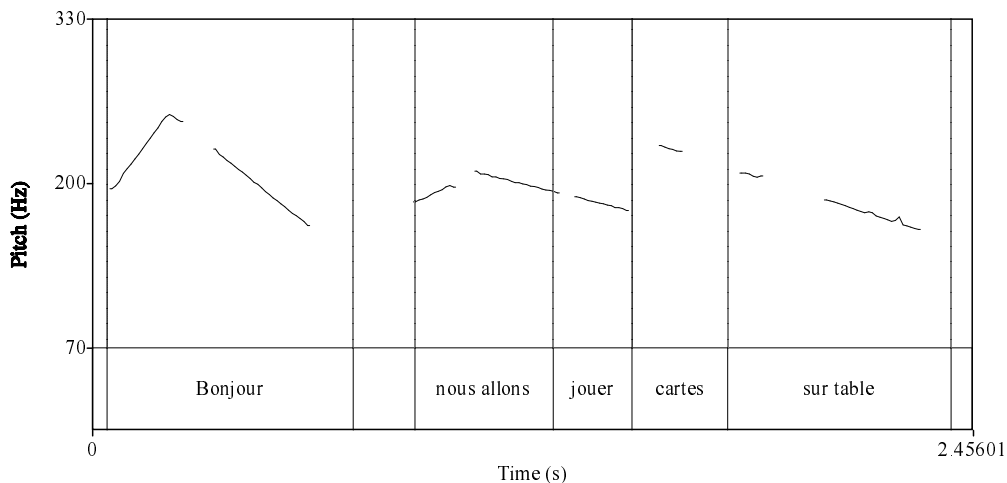


The melody associated with *bonjour* ('hello') in (13) features two level terraces: a level High plateau on *bon* followed by a level Mid one on *jour*. The melody of (13) should be contrasted with that of (14) below, which is the run-of-the-mill melody associated with *bonjour* in everyday conversation. In (14), the melody rises on *bon* and falls on *jour*. The former melody sounds special, whereas the latter sounds casual.

(14) [Lab data]

Bonjour, nous allons jouer cartes sur table

Good morning, we are going to put our cards on the table



The situation in which (13) is uttered is in no way « stereotyped », since the two interlocutors have already talked for a while. In the preceding part of the conversation, Amher, the speaker of (13), made clear that he was not looking for the addressee's father, but rather wanted to have a serious discussion with the addressee. Amher now wants to carry on with the conversation, while the addressee, who feels caught in a trap, tries to escape. By uttering (13), he re-opens the conversation as if they had just met, which enables him to reset the agenda of the interaction.

Indeed, this particular example typically illustrates the use of stylized contours in general. SCs do not require a stereotyped context to be felicitous, rather they bring about such a context. In order to capture the import of SCs, I propose to extend Ladd's analysis of the form of SCs to the pragmatic dimension: the meaning of SCs is the meaning of plain contours with something added. Stylization adds a mentioning effect which can be described as quoting a contour. Hence, instead of (12b) above, I propose (15):

(15) Stylized contours:

Common pragmatic feature: by using a stylized contour, the speaker signals that s/he mentions the basic contour on which the stylized contour is based.

Then, the meaning of SCs can be decomposed into two elements: the value of the plain contour and the effects linked to the mentioning of that contour.

By using a stylized contour, the Speaker presents herself as playing the role of a speaker using the plain contour. Such a usage results either in playful humour or in the whole gamut of attitudes linked to irony (mockery, bitterness, aggression, etc.). When children use the 'nananère contour', they use a contour that implies that they could be ready to abide by the will or desire of the interlocutor, but that they will not do that! When the "bad guy" utters (13), he imposes his will to have a conversation with the other character under the guise of a polite routine for opening a conversational exchange. He quotes an opening phrase of an ordinary conversation opening, and in this case, the overtone conveyed by the utterance is quite grim.

4. A hierarchy of French contours

The set of contours in (7) belongs to the basic intonational lexicon of French. As other lexicons, it can be construed as an unstructured list or as a hierarchy. Imposing a hierarchical structure on a lexicon enables one to factor out the general features of the units and to distinguish natural classes or families of resemblance. Inheritance trees are a good tool to carry out such a program; this is the program of the current section.

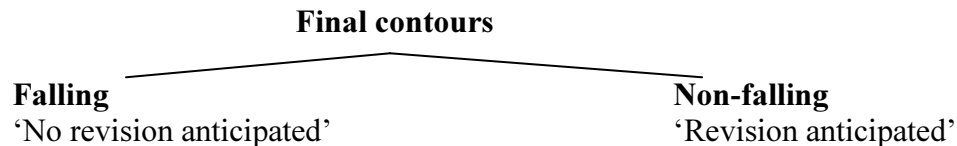
As we saw in §2.3, I assume that contour meanings are not amenable to compositional analysis. But, they allow a contrastive approach. This is in keeping with an observation made by Lambrecht (1994: 340): "the information-structure construal of a sentence is determined by a different principle: the formal contrast between alternative structures generated by the grammar expressing the same proposition meaning. The discourse value of a given sentence is measured against a background of possible allosentences". Here, we deal with "prosodic allosentences" (ibid.: 242), i.e. utterances expressing the same semantic content with distinct contours. In other words, if it is true that contour meanings pertain to discourse pragmatics, it is not unexpected that they should be contrastive in nature. This stance provides a principle for structuring the hierarchy of contours: each level of the hierarchy corresponds to a type of contrast.

At the core of the present analysis of contour meanings lies the claim that the choice of contour enables the speaker to signal her anticipation of what the addressee's reception of her utterance could be. I refer the reader to Beyssade & Marandin (to app.) for a comparison of such an approach with Steedman's (2003) analysis of English contours.

4.1. Basic contour hierarchy

We first distinguish falling and non-falling contours. This first level of contrast pertains to the contentious *vs* noncontentious character of the content of the utterance. By using a falling contour, the speaker presents her utterance as noncontentious and signals that she does not anticipate any revision of the commitment she expresses in her utterance,¹⁶ whereas, by using a non-falling contour, she signals that she anticipates a possible lack of agreement between herself and her addressee.

(16)



Prototypical speech acts are uttered with a falling contour; prototypical speech acts are assertions, questions and commands that are expressed by declarative, interrogative and imperative sentences respectively, the acceptance of which is taken for granted by the speaker. The association between falling contours and prototypical speech acts is readily explained by our proposal. As to assertions, they prototypically consist in the uttering of a declarative sentence that conveys a proposition admitted by both the speaker and the addressee without discussion. In other words, the speaker presents it as expressing a joint commitment, there is no room for dissent. In a parallel fashion, a prototypical question consists in the uttering of an interrogative sentence that raises an issue that both the speaker and the addressee agree is relevant. Once again, there is no room for dissent about the relevance of the issue or the questioned content. As for the marked value of assertions or questions with a non-falling contour, it is explained as follows: the choice of a non-falling contour signals that the speaker anticipates that the addressee may not be ready to take up her utterance. Such a choice may force the participants in the dialogue to perform some tuning concerning the content or the relevance of the current turn.¹⁷

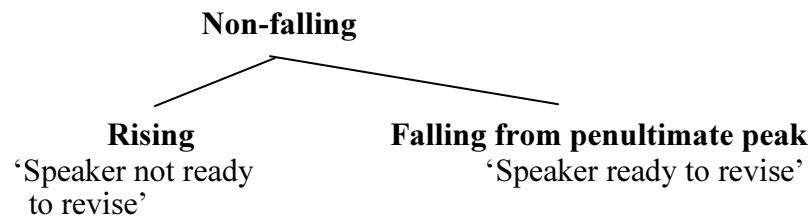
All non-falling contours inherit the value established at the first level. A second level of contrast holds between them. It pertains to the possible source of contention (the speaker *vs* the addressee). By using a rising contour, the speaker signals that she is not ready to revise her commitment, even though she anticipates that it may be incompatible with what she assumes to be the addressee's belief.¹⁸ By using a falling from a penultimate peak contour, the speaker signals her anticipating that she may have to revise her own commitment.

¹⁶ The speaker signals that she is committed to the propositional content of the utterance in asserting declaratives or to the issue raised by the question in questioning utterances.

¹⁷ As shown by the proponents of Conversation Analysis, the choice of public dissent, even a hint of dissent, is dispreferred in conversation. This explains the fact that there are much less utterances with a non-falling contours than with a falling contours in corpora of everyday interactions.

¹⁸ There are two types of rising contours: simple rise contours and rising-falling contours (rising-falling on the last syllable of the phrase), the latter corresponds to "contour d'implication" in Delattre (1966). Both convey the meaning that the speaker is committed to the content of the utterance and not ready to revise her commitment. There is a difference in discourse value I leave aside here.

(17)



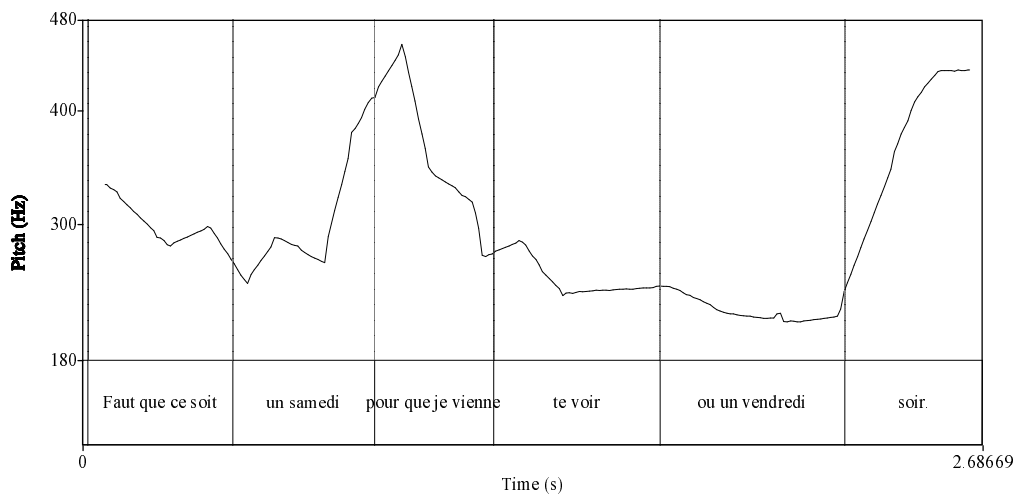
The proposal explains why an assertion which conveys strong Speaker's commitment to its content and relevance for the issue at hand can be uttered with a rising contour. The main effect of such contours with utterances in the declarative can be described as "I assert 'p', believe it or not, whether you like it or not". Utterance (18) is an example of a rising assertion drawn from one of our corpora of everyday conversation (phone calls) in a Parisian family.

(18) [Context: A, the grand-son, to his grand-mother B about a school concert]

A : Vous viendrez ou pas ? *Will you come or not?*

B : Je peux pas c'est pas possible faut que ce soit un samedi pour que je vienne te voir ou un vendredi soir

I can't it's not possible it has to be a Saturday for me to come and see you or a Friday evening

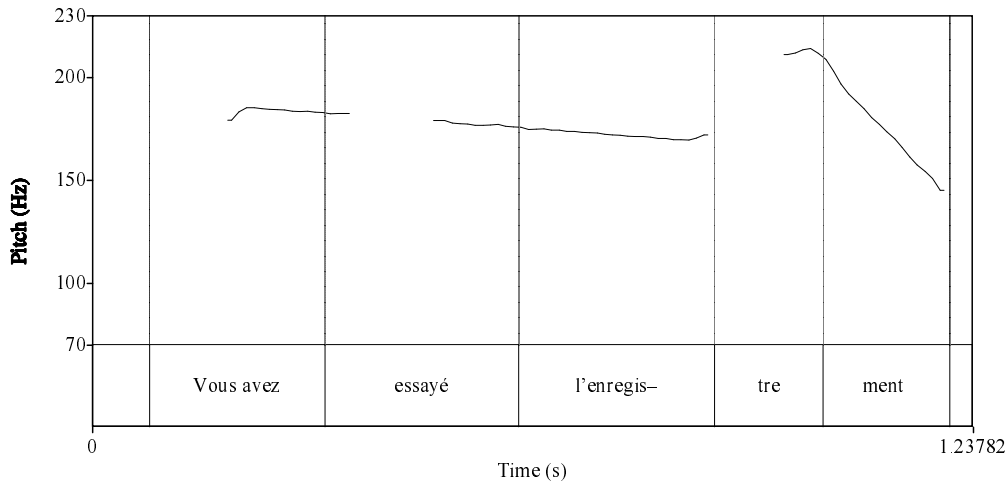


It also explains why most requests for confirmation are uttered with a falling from penultimate peak contour in everyday conversation: the speaker presents herself as expecting the addressee's verdict about the truth of her utterance. Utterances (19) is an illustration taken from the same corpus.

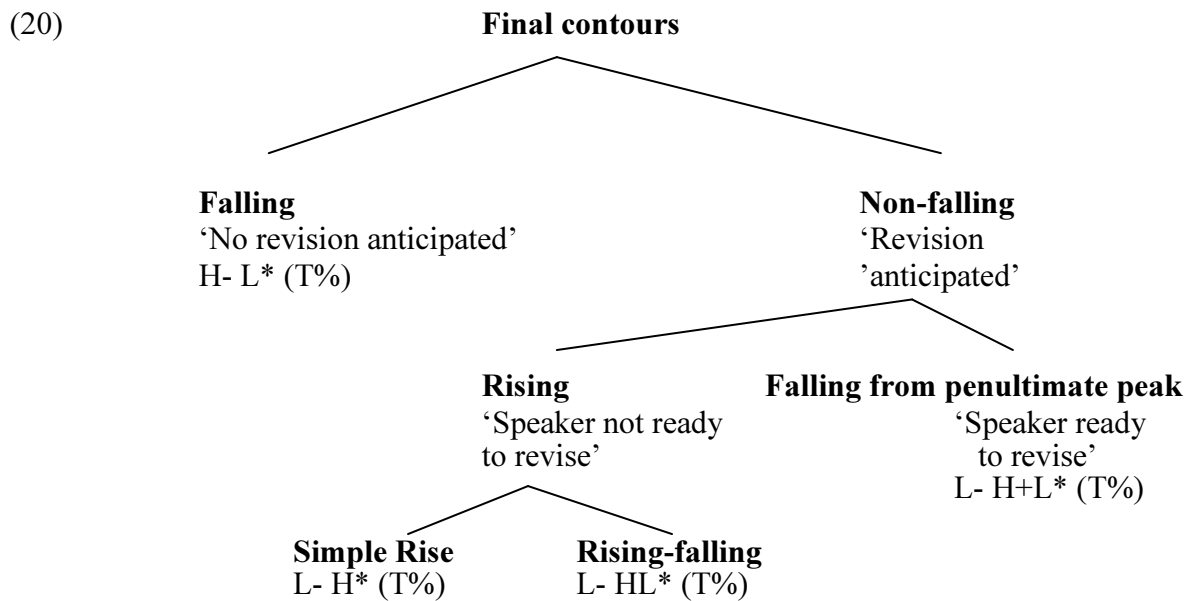
(19) [Context: after-sales service operator to a customer]

Vous avez essayé l'enregistrement ?

Have you tried the recording function?

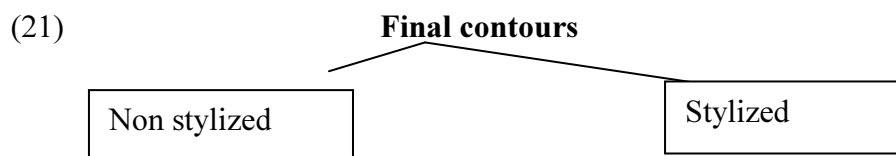


Then, the whole proposal may be schematized as in (20).

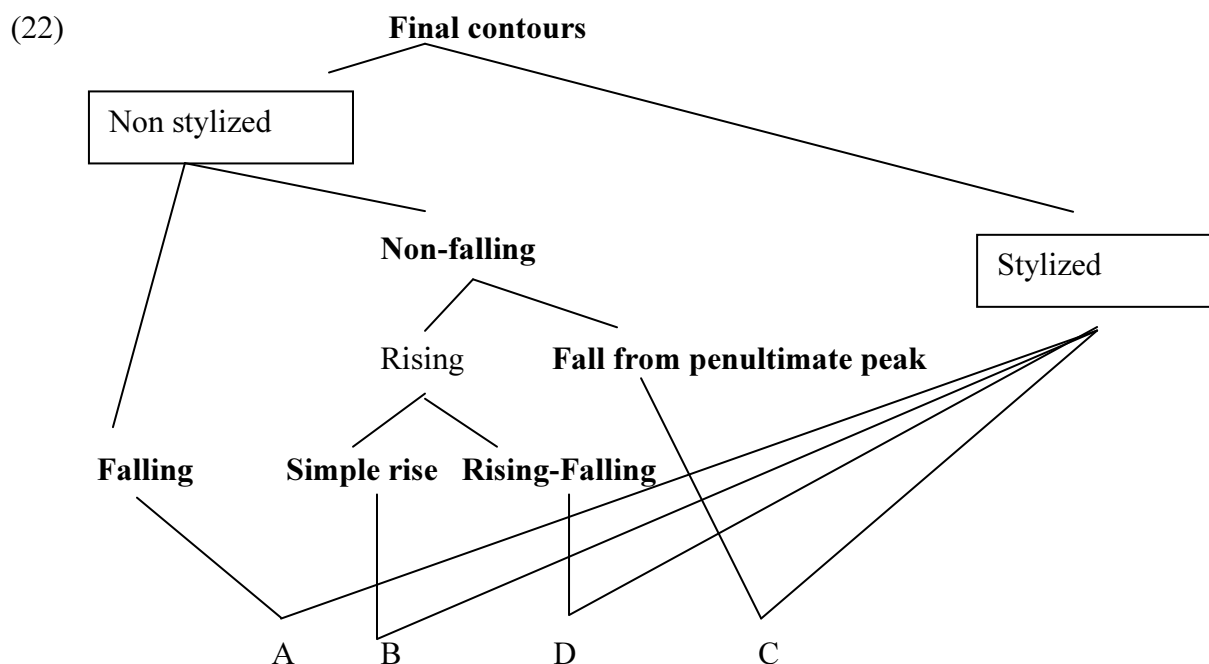


4.2. Hierarchy including stylized contours

I have argued that stylized contours are modified basic contours with specific formal features (see (12a) above) and a regular semantic import (see (15) above). This can be readily captured by positing two dimensions of classification along the stylized vs non-stylized contrast in the hierarchy of contours we are designing.



Stylized contours inherit properties from the basic contour hierarchy and from the stylized dimension. Proceeding blindly, four stylized contours are obtained given the four basic contours.

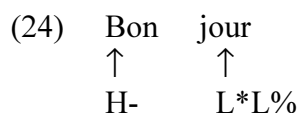


In fact, contour D, viz. a contour based on the rising-falling contour (analyzed as a sequence L- HL* (T%)) does not exist. This is expected since the pitch accent is intrinsically characterized as an onglide: no level realization is possible.¹⁹

This leaves us with an inventory of three stylized final contours:

- (23)
- a. Stylized Falling : A
 - b. Stylized Rising : B
 - c. Stylized Falling from penultimate peak : C

The stylized falling contour (A) is illustrated in (13) above; its tonal analysis is given under (24):

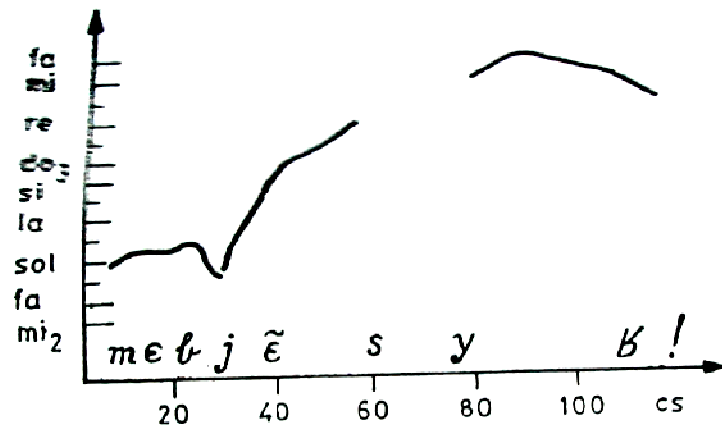


¹⁹ This corresponds to the gap observed by Post (see fn. 9 above): the rising-falling contour does not give rise to a Mid realization.

The stylized rising contour (B) is illustrated in (25) below by a contour discussed by Fónagy *et al.* (1983) (in its original presentation).²⁰ I will come back to the stylized falling from penultimate peak contour (C) in §4.3.

(25) Mais bien sûr
But of course

a. F₀ curve:



b. Anchoring:

mais bien	sûr
↑	↑
L-	H*

Di Cristo in his survey of French intonation (1998: 216) concludes the paragraph about intonation clichés by asking whether they really constitute a closed inventory. If they do, my claim is that (22) captures the structure and content of such an inventory.

4.3. Back to the "nananère contour"

The 'nananère contour' is a stylized falling from penultimate peak contour.²¹ It is not restricted to children's taunts *nananère*, *nanana*, etc. as is often assumed in the literature, it can also be associated with regular utterances. This is illustrated in (26) below: Low plateau on *Marie va*, pitch peak on the penultimate syllable of *arriver* and lower level pitch on the last syllable of *arriver*. The melody associated with utterance (26) clearly brings about the overtone that the speaker does not fully endorse the truth or relevance of the proposition that Marie is about to arrive.

(26) [Lab data]

a. Bien sûr que j'te crois, Marie va arriver
Of course, I trust you, Marie is coming

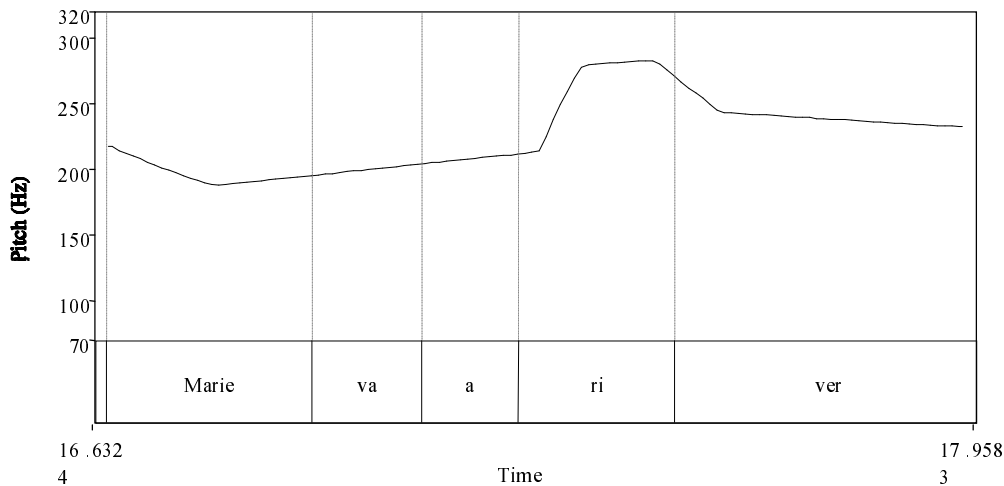
²⁰ Fónagy *et al.* (1983) present a survey of *clichés mélodiques* in French. They have compiled more than 3 « schémas » (their term). This is so because they did not sort out those realizational features which are definitional from those which are secondary features.

²¹ Also dubbed "triangle" by Fónagy *et al.* 1979.

b. Anchoring :

Marie va ar river
↑ ↑ ↑
L- H+L*

c. F₀ curve:



The discourse value of the ‘nananère contour’ is in no way “exceedingly difficult to describe in words”, rather it follows from the definition given in (15) above: it amounts to the value of the falling from penultimate peak contour, i.e. “the speaker is ready to revise her commitment”, plus the distancing effects linked to the quoting of the contour, i.e. humour or irony. The speaker acts as a speaker who knows that the content of her utterance can be contentious and showing herself ready to revise her commitment along with the addressee’s stance. Its use can be humorous (the speaker is indeed ready to follow the addressee) or ironical (the speaker is not in the least ready to follow the addressee). It may be playful or harsh. When it is used by children, it is usually ironical and playfull. In (26), it is humorous: it may be mild or scornful, depending on the intentions of the speaker and on her relation to the addressee.

5. Conclusion

I have presented a hierarchical lexicon of French contours; it includes stylized contours and makes it possible to capture their general features. I am fully aware that this proposal requires more empirical underpinning and a more precise analysis of the phonetic realization of stylized contours. Nevertheless, as such, it is the first step towards the integration of contours into Grammar, more precisely into a system of grammatical description which recognizes the layered nature of constructions. This could be an HPSG grammar which includes Prosody (and Intonation) in the formal and semantic description of utterances.

As for Construction Grammar, its research program has often been criticized for diluting generalizations into over-detailed descriptions. As is obvious here, the opposite result is achieved: not only is it possible to capture the form and value of melodic clichés in words but it is also possible to embed the analysis in a grammar of Intonation and in a grammar of French by using one of the main tools of Construction Grammar: hierarchies of constructions.

As for stylization, Ladd's proposal of considering level pitch as the formal distinctive feature of stylization was adhered to. This does not imply that other parameters (register,

voice quality, etc.) cannot give rise to stylization, but for these parameters, data and precise analyses are still missing.

Finally, Lambrecht's principle (according to which discourse values are *par nature* contrastive) has an interesting consequence: it implies that the discourse value of grammatical forms, here contours, depends on the inventory (i.e. the paradigm) of forms provided by each individual language. If Bartels (1999), Gunlogson (2002), Steedman (2003) are right, the values of contours in English are different from the values of contours in French. For example, in French, the contrast between falling and non-falling contours is not linked to the marking of the speaker's *vs* the addressee's commitment, as is claimed by the authors for English. This also means that the value of stylized contours should be different in English and in French since it depends on the value of the basic contours. This is a claim which -- empirically underpinned -- would lead to a more thorough understanding of the differences between English and French intonation.

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