# ON WHAT 'MELODIC CLOSURES' MEAN: STYLIZED CALLING CONTOUR IN FRENCH CONVERSATIONS

## Zsuzsanna FAGYAL

*University of Pennsylvania Linguistics Department*
*Institut de Phonétique de l'Université de Paris III*

Abstract :    This study shows that 'melodic closures', tonal patterns considered turn-ending rhetorical devices in French conversations, convey a precise intentional meaning.  They are sub-types of the 'chanted' calling contour, and their meaning can be analyzed in terms of dominance relationships between the speakers.  When the chanted calling contour is displayed over an utterance in turn-ending position, it signals that the speaker relies on an existing or assumed mutual agreement with the addressee in asserting a claim in both their names.  The contour's phonological representations, and approaches to its tonal meaning are also discussed.

## 1. INTRODUCTION

Among the most common intonational contours of Parisian French, Fónagy et al. (1979) illustrate several contours that seem to appear consistently at the end of discourse units.  One of these contours is:  the 'declarative triangle'.  It is aligned with the last three syllables of an utterance, and composed of a low tone followed by an F0 peak and a 'midish' tone.  The characteristic "fairly level mid-to-high pitch" value of the last syllable is analyzed as a "suspended fall" by Ladd (1996, p. 139).  The contour seems to convey the meaning of a statement, with a nuance of 'obviousness'.

In Fónagy et al., 1983 tonal patterns similar to the declarative triangle are labeled 'melodic closures'.  They are considered rhetorical devices with no inherent meaning, but one common discourse function:  they mark the end of major discourse units, by "imprinting the content of

the utterance on the listener's memory" (p. 169). The first tonal pattern, called schema J, has a characteristic chanting air, which seems to motivate its use: "the voice becomes a chant, as if the speaker wanted to finish an argumentation in beauty" (opt. c.). Schema J is reported to be similar to another intonational pattern, called schema I, which is described as a rise of about a musical quarter followed by a fall of approximately a musical third[1]. The syllable alignment in schema J is not clearly stated. The authors indicate that the contour is formed by the "last syllables of an utterance" (p. 169), but not by which syllables. Schema J's illustration in musical notations (figure 1) is based on five notes that are not aligned with syllables.



*schema J*                          *schema K*

Figure 1. Utterance-final tonal patterns called melodic closures, and referred to as schema J and schema K by Fónagy et al. (1983).

The second melodic closure seems to have different sub-types, depending on the phonetic realization of its intervals. The most frequently observed pattern is: schema K. It is "composed of a rise of a quarter, and of a fall of a minor third" (p. 170). Notice that this description also applies to the previous contour: schema J. Therefore, it can not be used to tell the two patterns apart. Still, illustrations in figure 1 indicate some minor tonal differences: schema J has a bigger rise (a major quint) and a smaller fall (a minor third) than schema K (a quarter and a third). However, this distinction is contradicted by the authors' own claim that schema K is sometimes composed of a quint followed by a minor third: intervals characterizing schema J[2] in figure 1.

Based on what precedes, schemas I, J and K display the same tonal structure. Although they may differ with respect to their rhythmic properties, such as rate and timing[3], the lack of categorical tonal distinction between the three argues against their treatment as separate intonational contours. It is likely that subtle tonal variations described by Fónagy et al. (1983) correspond to individual speakers' renditions of the same intonational contour.

## 2. THE CALLING TUNE IN TURN-FINAL POSITION

### 2. 1. Formal representations

Schemas I, J and K are variants of the well-known 'stylized' or 'chanted' calling contour. This 'singsongy' intonational contour or 'tune' was attested in many languages, and called a melodic universal (Ladd, 1996). In French, it typically appears in vocatives: calls (figure 2), greetings ("Bonjour!") and remindings ("Attention!"). Its use is iconic in calls ("eh oh!",
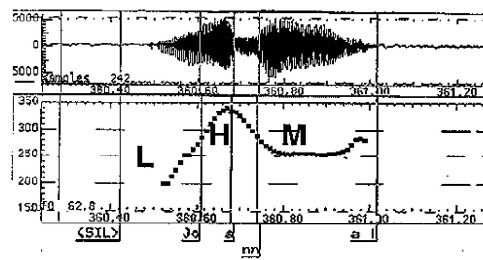
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[1] "The triangular cliché signaling the end of a discourse unit [schema J] can be distinguished by its more vivid rate, its staccato-like air, and its sudden attack of the dreaming atmosphere conveyed by the previous schema [schema I]." (Fónagy et al., 1983, p. 169).
[2] The difference of one semitone between the two rises (a quint vs. a major quint) is unlikely to lead to a categorical distinction by average listeners with no musical training.
[3] see footnote 1

"coucou!") and in childish mockery ("tra-la-la-lè-re"), whose two final notes are based on the tune.

In French, the tune was first represented in calls as the sequence of low (L), high (H) and mid (M) tones (Dell, 1984). Di Cristo and Hirst's (1996) model of French intonation would also suggest a LHM representation, and Mertens's (1987) model would produce: lh\HH. In all three cases, the F0 peak (H or h) is associated with the penultimate syllable, and followed by a mid (M) or a lowered high (\HH) tone on the last non-schwa syllable of an intonational phrase. Jun and Fougeron's (1997) autosegmental representation of the contour is: (L)H*H-L%. (L) is optional[4], H* is Accentual Phrase final tone realized on the penultimate syllable, H- is the Intermediate Phrase tone, and L% is the Intonational Phrase tone. Although all these models account well for the tune in simple vocatives[5], this study will use the phonetically transparent (L)HM representation. This choice is motivated by two reasons: (1) only contours similar to the tonal structure of simple vocatives (figure 2) will be analyzed, and (2) the semantico-pragmatic model used to account for the tune's meaning is based on kinetic tones i.e, rises, falls and their compounds, which are surface features in autosegmental representations. A possible account of the tune as (L)H*H-L% (Jun and Fougeron, 1997) will be discussed in 2.5.



Figures 2. Simple vocative "Joanna!" uttered with chanted call intonation represented by the phonetically transparent LHM representation (see text).

## 2. 2. Shared convention

In French, the calling contour appears in a variety of contexts other than vocatives (Fagyal, 1997). Its core meaning is context-independent, conveying that the propositional content of the utterance is, or ought to be, predictable and based on a shared convention between the speakers (Ladd, 1978; Pierrehumbert and Hirschberg, 1991). Intonational contours with similar meanings were also analyzed in previous studies of French intonation. Fónagy et al.'s (1979) 'declarative triangle' was described as carrying out the 'obviousness' of a proposition, and Mertens's (1987) lh\HH contour was analyzed as the expression of predictable and "self-explanatory" information (p.109). This study argues that both contours, together with some of Fónagy et al.'s (1983) 'melodic closures' are, in fact, illustrations of the chanted calling contour in implicative discourse contexts. In other words, all these tonal patterns are not only formally, but also functionally related to the calling tune. The following examples will briefly demonstrate the use of the tune in turn-final utterances in TV and radio interviews.

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[4] only appears in vocatives with more than two syllables
[5] However, in 'complex vocatives' ("Bonjour Madame Durand!") the autosegmental model has the advantage of capturing phonologically the midish plateau, stretching from the F0 peak to the final syllable of the Intonational Phrase (see Jun and Fougeron, 1997 and Fagyal, 1997).

The following example is the analysis of one of Mertens's illustrations of the lh\HH contour (Mertens, 1987, p.109, (45)). It was recorded in a radio interview with the famous French journalist: Françoise Giroud. Example (1) shows the calling contour in conversational implicature (Grice, 1975). The utterance "Alors il y a tout d' même les circonstances objectives" ('So there are still the objective circumstances') (**b**) refers to a previous part of the conversation. Prior to (1), the speaker explains that she—although coming from a wealthy family—became a journalist instead of getting married, because of objective circumstances in her life: war, death of her father...etc. The interviewee's LHM intonation (**b**) is a 'call' for the hearer to infer from that previous context that the argument of age in "but j'avais quatorze ans" ('I was fourteen years old') (**a**) is another example of such 'objective circumstances' (figure 3). The anaphoric use of the determiner "les" ('the') (**c**) supports this interpretation: P is detached from its immediate discourse context, and only receives relevant interpretation, if the hearer is able to relate P to its appropriate reference. Therefore, P violates the Cooperative Principle in the Manner and the Quality of the information given to the hearer. Although this interpretation is in accordance with the LHM contour's core meaning ('P is predictable'), changing the utterance's intonation does not cancel the implicature. What is, then, the contribution of intonation only?

(1)     interviewee:

         **a.** ...mais j'avais quatorze ans et ben j'ai choisi d' travailler

         **b.** Alors il y a tout d' même les circonstances objectives
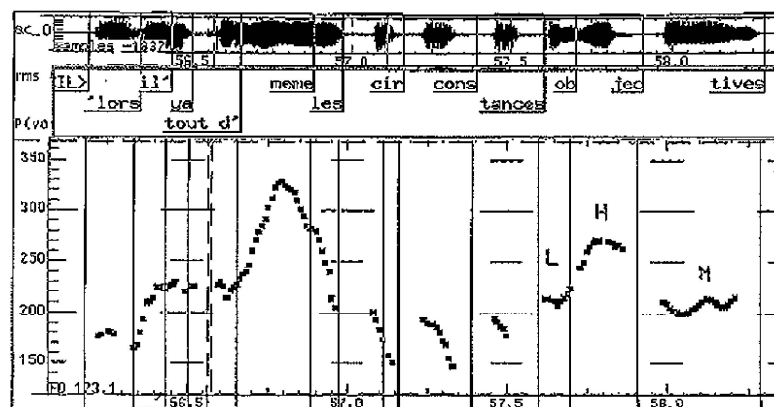
                                 LHM



Figure 3. Chanted calling contour (LHM) aligned with the last three syllables of the utterance "Alors il y a tout d' même les circonstances objectives" (from Mertens's (1987) dissertation corpus).

The answer comes from conversations, where (L)HM intonation is often used to elicit the confirmation of a discourse old information. In example (2)—recorded from the TV5 evening news—a female journalist is interviewing a homeless man in a Parisian center for homeless people. She is asking him if he has been coming "ici" ('here') (**a**) for a long time. Following the man's answer "Oui, ça fait treize ans" ('yes, for thirteen years') (**b**), the journalist's chanted call intonation on "treize ans" ('thirteen years') (**c**) conveys the acknowledgment of this old information. However, her subsequent LHM intonation on the name of the center, "La Mie de pain", is more than a matter-of-fact statement. This name has not yet been uttered in the conversation, and the hearer could only guess it from the background signs posted in the dining room. Chanted call intonation on the name of

the center (**c**) signals that the shared convention establishing "ici" ('here') (**a**) as a reference to "La Mie de Pain" has to be made explicit. Notice that the interviewee disregards the journalist's acknowledging HM intonation on his previous statement ("Treize ans", 'thirteen years') (**c**), but he says "oui" ('yes') (**d**) to her request for confirmation: he repeats the name of the center as a statement.

(2)     interviewer:

           **a.** Vous, Monsieur, ça fait longtemps que vous v'nez <u>ici</u>?
                                                                H

interviewer:

           **b.** Oui, ça fait treize <u>ans</u>.
                              L

interviewer:

           **c.** <u>Treize ans</u> # à <u>la Mie d' pain</u>?
                HM              LHM

interviewee:

           **d.** Oui, à la Mie d' <u>pain</u>.
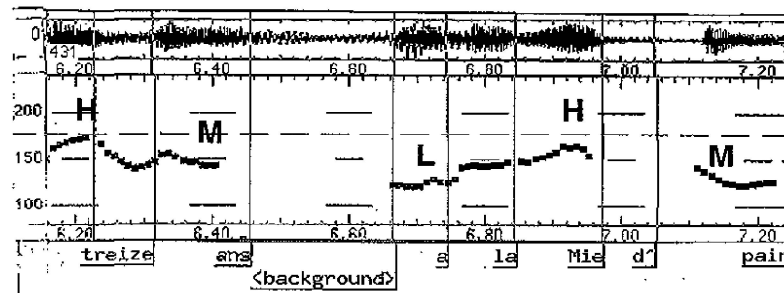                              L



Figure 4. Chanted calling contour on "Treize ans" (HM) and "La Mie d' pain" (LHM). The background noise of the dining room (see text) might have slightly lowered the f0 values on the first syllable of the second utterance; "à la" sound equal in pitch.

The fact that chanted call intonation can elicit backchannel cues from the interviewee indicates that the contour's meaning goes beyond the statement of discourse old information. In example (3), the interviewer (S) starts a new turn in the conversation between the two participants—the same as in example (1)—discussing the interviewee's (A) relationship with movie director Jacques Becker. As in the previous examples, chanted call intonation is supposed to signal that "car vous avez travaillé directement avec lui" ('since you worked directly with him [Jacques Becker]') (**a**) is routine information. In reality, it is not: A's working relationship with the movie director is brought up for the first time in the conversation. S frames his claim as follows: A was working with movie director Jean Renoir when she met Becker, and then she started to work directly with the second director. None of these assumptions is predictable from the discourse or from a broader socio-cultural context. According to educated native speakers of the interviewee's generation, these facts are not routine information for average listeners with limited knowledge of French movie history. Still, S acts as if these assumptions were common ground with A, and (L)HM intonation could be used to label them as known and predictable. The use of this contour by S signals that he assumes his own claim is also what A is committed to. A first confirms this assumption (**b**), but her agreement is not unconditional: the marker "c'est-à-dire" ('I mean') indicates that S's claim has to be reformulated as follows. A and Becker 'collaborated' with

Renoir, then they became friends and only then A, a former script girl, was cast in one of Becker's movies.

(3)     interviewer:

**a.** ...vous avez travaillé avec Jean Renoir # La 'Grande Illusion # Il y avait Jacques Becker # Jacques Becker ensuite c'était autre chose, car vous avez travaillé directement <u>avec lui</u>
LHM

interviewee:

**b.** *Oui, c'est à dire* qu' nous avons été tous les deux nous avons tous les deux *collaboré* avec euh avec Renoir [...] Nous avons eu beaucoup d'amitié l'un pour l'autre [...] et puis quand il a fait 'Antoine et Antoinette' il m'a demandée de faire le film avec lui...
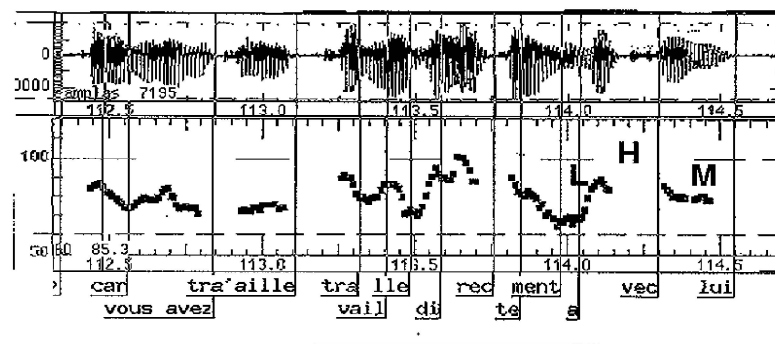


Figure 5. Chanted calling contour (LHM) aligned with the last three syllables of the utterance "...car vous avez travaillé directement avec lui" (from Mertens's (1987) dissertation corpus).

*2. 3. Looking for agreement*

The exchange between the participants in examples (1) and (3) is a subtle form of negotiation. The entire first part of the interview is dedicated to S's attempt to convince A that she (A) was predestined to an exceptional career. A argues against this view in example (1) with respect to journalism, and in example (3) with respect to her short career in the movie industry. She wants S to adhere to her own interpretation of her past: it was not a logical necessity, but a series of external circumstances that shaped her professional career.

Chanted call intonation plays an important role in the management of this negotiation for mutual agreement and it is, indeed, very frequent in turn-final utterances in French conversations. However, the contour is not an empty stylistic device that makes the utterance sound more salient to the hearer (Fónagy el al., 1983). Just the opposite: it seems to be associated with old and predictable information. On the other hand, the contour conveys more than just a statement with a "nuance of obviousness" (Fónagy et al., 1979) or the assertion of "an example judged evident" (Mertens, 1987; 1997). Unlike in English (McLemore, 1991), the chanted calling contour seems to promote the addressee's participation in conversations in French, for it can elicit 'yes' responses and reformulations of preceding propositions by the addressee (examples (2) and (3)). It would be equally false to conclude, however, that (L)HM intonation is a direct call to A. Abe (1962) and Di Cristo (in

press) show convincingly that the contour is only one of the possible vocative intonations in English and in French. If it is neither a statement, nor a direct call: what is it?

The contour's pragmatic meaning seems twofold: the speaker uses it to solicit confirmation ('call') from the addressee for a claim he or she is making ('statement') in both their names. Soliciting confirmation, i.e. checking upon the mutual agreement with the addressee is crucial, because it connects the tune to its primary calling function. In vocatives, the calling contour's use is always licensed by a previously established convention[6]. Its use is legitimate, for instance, in calls ('Alexander!') uttered to a child who is out of sight but known to be around: the speaker looks for confirmation of a fact ('Are you there?') that is already known and mutually agreed upon. This is also true in example (2) where chanted call intonation on the name of the center for homeless people ("La Mie d'pain") simply confirms an otherwise predictable information. In other contexts, however, the tune can be used in a turn-ending utterance even if the speaker merely assumes a shared convention with the addressee. This denotes 'gently' forcing an interpretation on the addressee, because the latter is considered necessarily on the speaker's side in asserting a proposition as mutually agreed upon (example (3)).

The assumption of reciprocity of knowledge and approval with the adressee means that the speaker represents both participants as intimates[7]. Mertens (1997) comes to a similar conclusion with regards to his lh\HH contour: S verifies the consensus with A in a way that "takes the form of connivance" (p. 42). This is especially obvious in vocatives. For instance, warnings uttered with chanted call intonation are typical in parents' speech to their small children (Ladd, 1978; Danon-Boileau, p.c). Behind the chanting air of the childish mockery ("tra-la-la-lè-re") also lies the assumption of an intimate addressee who consents to such 'gently' teasing. It is, however, much more difficult to explain what motivates the speaker to use chanted call intonation—rather than another intonational contour—at the end of turns in persuasive discourse contexts. A possible explanation comes from a more abstract interpretation of the contour's meaning. Such an attempt can be made within the decision theoretical-model for intonation (Merin, 1983, 1994; Bartels, 1997; Merin and Bartels, 1997) that is briefly presented as follows.

## 2. 4. A compositional approach to tonal meaning

The decision theoretical-model considers spoken discourse a negotiation process. 'Negotiation' is to be taken as a bargaining game, i.e. a social setting in which the participants' interests are neither wholly opposed (they need each other to reach a goal) nor wholly consonant (they may disagree on how to achieve it). An idealized situation has two participants: in a face-to-face conversation the Speaker (S) and the Addressee (A) are discussing issues of mutual interest. S and A are considered cooperating, but fully autonomous agents. They are engaged in establishing a common ground of joint commitments on a series of propositions and their relationships to the discourse context. S and A are in constant "need of persuasion" (Bartels, 1997, p.5): they need to be convinced by the other party that instantiated proposition P has to be common ground. The negotiation on what becomes common ground proceeds by Elementary Social Acts (ESAs), such as Claim, Commitment, Concession, Denial, Retraction of a Claim... etc. ESAs are transitions to and from negotiation states characterized by vectors of binary decision-theoretic parameters. In

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[6] "Bonjour!" or "Attention!" can only be uttered with (L)HM intonation, if the speaker and the addressee have a previously established and mutually shared agreement of knowing each other (Fagyal, 1997).
[7] see footnote 6

an algebraic representation proposed by Merin (1994) the following four parameters are allocated either to S or to A: agent-role, preference, dominance and initiator[8].

Intonation primarily denotes the allocations of dominance, i.e. 'the D-parameter value'. Dominance is defined as: the 'power of choice' given either to S or A who decides on what will become of the issues under negotiation. Intonational morphemes, elementary meaning bearing units, are assumed to be kinetic tones: rises, falls and their compounds. In different phonological representations, these pitch movements correspond to a set of phonemic tonal units: L, H, M, \HH... etc. The decision-theoretical was applied to American English intonation using the Pierrehumbert system (Bartels, 1997; Merin and Bartels, 1997). This presentation focuses on the meaning of two phrase-final pitch movements: (1) A Rise, L*H-/%, inherently signals that A has the power to decide whether P will become common ground or not; (2) a Fall, H*L-/%, denotes that this choice is to be made by S. In terms of social acts, the two pitch movements are analyzed as follows. (1) Phrase-final rise conveys that S is restricting choice among alternatives[9], i.e. he or she is making a *Concession* to A. In a question ending with a phrase-final rise, for instance, S asks A's opinion on a well-defined alternative of possible worlds, and therefore promotes A's participation in the negotiation (also in McLemore, 1991 and Morel, 1995). (2) Phrase-final fall conveys the opposite: S is dominant and "forcing A to commit to one mutually binding alternative" (Merin and Bartels, 1997), i.e. he or she is making a unilateral *Claim*. These meanings combine to create the meaning of contours.

As opposed to studies deriving tonal meaning directly—and only—from discourse relations (Gussenhoven, 1984; Pierrehumbert and Hirschberg, 1991), the decision-theoretical model turns to fundamental socio-political relations underlying human cooperative strategies. Therefore the latter "has a greater phylogenetical plausibility" (Bartels, 1997, p.5). The French pragmatics school's model of intonation represents a third approach (Danon Boileau et al., 1991; Morel and Rialland, 1992; Morel, 1993; 1995). Although the tonal meaning of discourse units defined by the model[10] is derived exclusively from discourse relations, these relations are analyzed as moves and strategies ('Claim' (high), 'Commitment' (low)...etc.) carried out in cooperation or 'co-enunciation' by the speakers. Just like the decision-theoretical model, Ohala's (1983, 1984) frequency code model claims that high pitch and low pitch symbolize—cross-culturally and across species—submission (low social power) and dominance (high social power), respectively. However, the frequency code and the decision-theoretical model differ on one important point. The frequency code model is a purely ethological approach. It defines dominance as a social behavior ('threat') or a socio-psychological state ('self-confidence') based on well-defined psycho-physiological attributes of the Darwinian word: large face, long vocal tract, lower larynx... etc. It does not say, however, how these features become part of a gestural system, i.e. intonation, that is also used to encode truth-conditional meaning. In the decision-theoretical model, dominance is linked to the discourse-epistemic status of propositions: either S or A has the 'power' to decide what to do/say (share, question, assert, deny) about a given proposition.

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[8] This extremely sketchy presentation will only deal with those aspects of the model that were showed to be relevant for intonation (see Merin 1983 and Bartels, 1997).

[9] "among the sets of possible worlds" (Merin and Bartels, 1997)

[10] Since the model is not based on phonological units, it is difficult to interpret it as such. It seems, however, that Morel and her colleagues' approach would roughly correspond to a four tone-representation of French intonation: final syllables of discourse units identified by the model are treated as tonal mophemes with for phonemic tonal heights, called level 1, 2, 3 and 4. This study is only concerned with the model's implication for pragmatic analysis.

## 2. 5. Chanted call intonation: negotiate and 'save face'

In a negotiation process where S and A constantly need to be persuaded by the other party on why P should be common ground[11], chanted call intonation signals S's intent to escape from the 'burden' of persuasion. When chanted call intonation is displayed over an utterance, it signals that S regards the negotiation with A on P as a friendly chat with an intimate, rather than a debate with a challenging opponent. A is not regarded as someone to be convinced: he or she is solicited to back S's intent to assert P as common ground. In other words, based on S's assumption of intimacy with A, A is 'gently' forced out of the negotiation on P.

The meanings of two pitch movements combine to create the meaning of the chanted calling contour. By uttering an H tone on the penultimate syllable, S *is making a Concession* to A on instantiated proposition P. This move temporarily puts A in a dominant position. However, in chanted calling contours the penultimate high is necessarily followed by a midish tone on the last syllable, which means that the negotiation on P is not yet finished. The M tone on the last syllable signals that S takes final control over the issue by *maintaining the Concession* to A (II) and, simultaneously, *making a Claim* (L) on P. The pragmatic value of the phrase-final M tone, therefore, denotes S's intent to both concede and keep some power over the choice on what to do/say about P. Morel (1995) also analyzes the 'midish' tone[12] as signaling a double intent: S draws A into the negotiation ('co-enunciation'), but their dialogue can be only carried out in terms of what S assumes is an "acquired consensus between the speakers" (p. 201). The M tone's autosegmental representation as H- and L% tones (Pierrehumbert (1980) for English, Jun and Fougeron (1997) for French) may be an explicit representation of S's intent to make, simultaneously, a concession (H-) and claim (L%) on P[13].

In terms of elementary social acts, the midish tone conveys a cooperative attitude that is conform to the politeness principle (Lakoff, 1973): S is sharing power with A by including A in the final decision on P. S applies a so-called 'positive politeness strategy' (Brown and Levinson, 1987): he or she shows respect to A's face by directly 'seeking agreement' and 'avoiding disagreement' with A. If there is an existing mutual agreement between S and A on P, claiming common ground and sharing power is a strategy characterizing "normal linguistic behavior between intimates" (opt. c., p. 101). When such an agreement is only assumed, S can *pretend* it in order to maintain A's face[14]. The reason why S would fake an agreement is because it is also a face-saving strategy for S: in order to maintain S's face A will choose not to directly contradict S's false assumption of intimacy. Instead, A will choose the negative politeness strategy of 'avoidance', which was demonstrated in example (3): A first says 'yes' to S's (L)HM intonation implicating a mutually binding agreement, and only then makes the claim that P should be reformulated according to her interpretation.

The use of chanted call intonation in turn-ending utterances in French conversations is part of a highly conventionalized ritual that allows speakers to carry out even difficult negotiations without directly threatening each other's face. This explains why (L)HM intonation is so wide-spread in political debates, radio and TV interviews and persuasive discourse broadcast by the media. In terms of elementary social acts, it is reasonable to expect that A would

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[11] S and A are "constantly asking 'Why <expletive> should I do/believe that?" (Bartels, 1997, p.5)

[12] called 'level 3', see footnote 10

[13] This, however, has to be confirmed by studying these two tones in other discourse contexts.

[14] Such strategies of 'pseudo-agreement' can be conveyed by means other than intonation. In English, for instance, conclusory markers 'so' and 'then'—in utterance-inital and utterance-final positions respectively—are often used to indicate that S is drawing a conclusion along a "line of reasoning [that] is carried out cooperatively with the addressee. [...] (58) **So** when are you coming to see us? [...] (57) I'll meet you in the front door of the theatre just before 8.0, **then**?" ( (Brown and Levinson, 1987, p.115)

benefit from such strategy, because S's attitude of intimacy promotes mutual participation and implies group membership. The same negotiation strategy might be even more profitable for S, since sharing power when 'speaking for both sides' seems less face-threatening than facing A as a challenging opponent with no mutually binding 'obligation to be polite'. Therefore, in terms of tonal meaning, S would prefer to use (L)HM intonation, for instance, when he or she wants to avoid asking A a straightforward question (H%), i.e. giving up dominance entirely to A.

## CONCLUSION

This study aimed to show that 'melodic closures', tonal patterns previously described in turn-ending utterances in French conversations, can be related to a single underlying tonal representation: the chanted calling contour. In turn-ending utterances in French conversations, the contour conveys a precise intentional meaning. This meaning was analyzed within a theoretical framework where intonation denotes the allocation of the power of choice, either to the speaker or to the addressee, over the discourse-epistemic status of the instantiated proposition. The contour's pragmatic meaning is twofold: the speaker uses it to solicit confirmation ('call') from the addressee for a claim he or she is making ('statement') in both their names. In terms of tonal meaning, the final midish tone conveys that the speaker intends to both concede (H) and keep (L) some power over the choice on what to do/say about P. The use of the contour in French conversations is part of a highly conventionalized ritual, analyzed as a mutually non-face-threatening conversational strategy.

## REFERENCES

Abc, X. (1962). Call-contours. *Proceedings of the Fourth ICPhS*, 519-523.

Bartels, C. (1997). The Pragmatics of *Wh*-Question Intonation in English. In: *Proceedings of the 21st Penn Linguistics Colloquium 1997, Working Papers in Linguistics,* University of Pennsylvania, **4** (2), 1-17.

Brown, P. and S. C. Levinson (1987). *Politeness: Some universals in language usage.* Studies in Interactional Sociolinguistics 4, 1996 edition, Cambridge University Press, Cambridge.

Danon-Boileau, D. (1994). La personne comme indice de modalité. *Faits de Langue* 3, La personne, 169-178.

Danon-Boileau, D. and A. Meunier and M-A Morel and N. Tournadre (1991). Intégration discursive et intégration syntaxique. *Languages* **104**, 111-128.

Dell, F. (1984). L'accentuation dans les phrases en français. In: *La forme sonore du langage: structure des représentations en phonologie* (Dell, Hirst and Vergnaud, (Eds.)), 1-78. Hermann, Paris.

Di Cristo, A. (in press). French. In: *Intonation Systems: a Survey of Twenty Languages* (Hirst, (Eds.). Cambridge University Press, Cambridge.

Di Cristo, A. and D. Hirst (1996). Vers une typologie des unités intonatives du français. In: *Proceedings of the 'XXIes Journées d'Etudes sur la Parole'*, Avignon, 219-222.

Fagyal, Zs. (1997). Chanting Intonation in French. In: *Proceedings of the 21st Penn Linguistics Colloquium 1997, Working Papers in Linguistics*, UPenn., 4 (2), 77-90.

Fónagy, I., J. Fónagy and J. Sap (1979). A la recherche de traits pertinents prosodiques du français parisien. *Phonetica* **36**, 1-20.

Fónagy, I., É. Bérard and J. Fónagy (1983). Clichés mélodiques. *Folia Linguistica* **17**, 153-185.

Grice, H. P. (1975). Logic and conversation. In: *Syntax and semantics, Vol 3: Speech Acts* (Spiro, Bruce Brewer (Eds.)), 41-58. Academic Press, New York.

Jun, S-A. and C. Fougeron (1995). The accentual phrase and the prosodic structure of French. *Proceedings of the Fifteenth ICPhS Stockholm*, **2**, 722-725.

Jun, S-A. and C. Fougeron (1997). A Phonological model of French Intonation: Introducing an Intermediate Phrase. *ESCA Workshop on Intonation, Athens, Greece,* manuscript.

Ladd, Robert, D. (1978). Stylized intonation. *Language 54*, 517-39.

Ladd, Robert, D. (1996). *Intonational phonology*. Cambridge: Cambridge University Press.

Lakoff, R. (1973). The logic of politeness: or Minding your P's and Q's. In: *Papers from the Ninth Regional Meeting of the Chicago Linguistic Society* (Corum, Smith-Stark and Weiser, (Eds.)), 292-305. Chicago Linguistic Society, Chicago.

Merin, A. (1983). Where It's At (Is What English Intonation Is About). *CLS 19*, 283-298. Chicago Linguistic Society, Chicago.

Merin, A. (1994). Algebra of Elementary Social Acts. In: *Foundations of Speech Act Theory* (Tsohatzidis, (Ed.)), 234-263. Routledge, London.

Merin, A. and C. Bartels (1997). Decision-Theoretic Semantics for Intonation. In: *Proceedings of the Cognitive Science Conference.* Stanford, manuscript.

Mertens, P. (1987). L'intonation du français: de la description à la reconnaissance automatique. Unpublished doctoral dissertation, Katholieke Universiteit, Leuven.

Mertens, P. (1997). De la chaîne linéaire à la séquence de tons. *Traitement automatique des langues*, **38** (1), 27-51.

Morel, M.-A. and A. Rialland (1993). Emboîtement, autonomie, ruptures dans l'intonation française. *Travaux de Linguistiques du CERLICO* **5**, La subordination, 221-243.

Morel, M.-A. (1995). Valeur énonciative des variations de hauteur mélodique en français. *French Language Studies 5*, 189-202.

Ohala, J. J. (1983). Cross-language use of pitch: An ethological view. *Phonetica*, **40**, 1-16.

Ohala, J. J. (1984). An Ethological Perspective on Common Cross-Language Utilization of F0 of Voice. *Phonetica*, **41**, 1-16.

Pierrehumbert, J. and Hirschberg, J. (1989). The Meaning of Intonational Contours in Discourse. In: *Intentions in Communication* (Cohen, (Ed.)), 271-311. Bradford, Cambridge (MA), London (UK).