Non-Finality and Pre-Finality in Bari Italian Intonation: 
a Preliminary Account

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Abstract
In this paper, a preliminary account of intonational strategies used by Bari Italian speakers in signal non-finality and pre-finality in discourse organisation is presented and discussed. Results obtained from auditory and instrumental analysis of speech material elicited with different methods (Map Task dialogues and monologues, lists readings) show that a rich inventory of intonational choices is available to Bari Italian speakers for conveying subordination relationships within a sequence of information (in a route describing task, this is normally a sequence of instructions and/or explanations), but also for signalling in advance the end of the sequence. Moreover, these results represent a further contribution to the development of an autosegmental-metrical account of the Bari Italian intonation system.

1. Introduction
In prosody research, it is widely agreed that intonation plays a very important role in discourse organisation. A clear example is represented by the “continuation rise”, which conveys a subordination relationship among phrases within a discourse segment [1]. It has been found that, as a general tendency, low boundary tones are used to signal finality, whereas high or not-low boundary tones are used to signal non-finality [2], [3]. For some languages, it has been established that intonation can also be used to signal pre-finality, i.e. that the end of a discourse unit is approaching. This is realised by marking the penultimate item of a sequence with an intonation contour which is different from other non-final ones. Such “pre-finality function” of intonation has been attested, for example, in (peninsular) Spanish, Romanian, American English [3], and in Dutch [4]. In a previous study based on Map Task dialogues (mainly aiming at studying the intonation structure in relation to communicative functions like querying and checking), also in the Bari variety of Italian, both non-final and pre-final contours were encountered [5], [6].

In the present paper, a more extensive analysis of non-finality and pre-finality intonational strategies in Bari Italian is presented and discussed, based on spoken materials elicited using different methods, and relating to instructing and explaining communicative functions. This preliminary account of non-final and pre-final contours also represents a further contribution to the development of an autosegmental-metrical account of the Bari Italian intonation system.

2. Method
The analysed material consists of three different kind of speech: Map Task [7] dialogues, Map Task monologues and lists readings. Speakers were university educated people aged between 22-35, all born in Bari with parents coming from the same linguistic area, and living in Bari. In each pair, the two participants already knew each other. Landmarks names on the maps were selected according to criteria like presence of sonorant segments and the position of stress in the words. All speech material was analysed and labelled using Entropic XWAVES package. Melodic contours were described within an autosegmental-metrical [8] ToBI[9]-like framework.

3. Map Task dialogues
The Map Task corpus material consists of four dialogues, which were all orthographically transcribed and coded according to the Map Task coding scheme [10]. Intonation analysis was concentrated on utterances relating to INSTRUCT and EXPLAIN conversational moves. Since these moves are typically realised by Instruction Givers in the Map Task, analysis has been concentrated only on speech productions of Instruction Givers in the four dialogues. Throughout the paper, IG1 refers to the Instruction Giver in dialogue 1, IG2 to the one in dialogue 2, IG3 to the one in dialogue 3, and IG4 to the one in dialogue 4.

3.1. Non-finality
The typical continuation rise expressing non-finality was extensively encountered in all Map Task dialogues. This contour consists of a gradual rising movement starting on the accented nuclear syllable (characterised by a local F0 minimum) up to the end of the phrase. The slope of the movement is more evident when a number of post-nuclear syllables is available. In such cases, it can be noted that F0 stays low till nearly the end of the phrase, and starts rising on the last segmental portion (the rise starts from the offset of the penultimate syllable), as shown in Fig. 1 (in all figure captions, nuclear accented syllable is capitalised). This non-final contour was phonologically analysed with the sequence: L*L-H% (see also [5], [6]). It can be considered as the unmarked contour for signalling non-finality, i.e. that generally “more is to come”. Within an Instructing game, for example, it is used for connecting a series of INSTRUCT moves, or a series of utterances within a INSTRUCT move.
3.2. Pre-finality

In addition, a different type of continuation rise has been observed for speakers IG2 and IG3. In this case, the rise starts before the nuclear syllable (i.e. an F0 peak is present on the accented syllable) and continues rising up to the end of the phrase. This contour is phonologically analysed with the sequence: H*H-H% (see also [5]), and an example is shown in Fig. 2. If compared with the continuation rise in Fig. 1, it can be noted that H*H-H% contour has a convex shape, whereas the L*L-H% contour in Fig. 1 has a concave one. Use of H*H-H% melodic curve is more restricted with respect to L*L-H%, as the former signals that the piece of information (in this case, an instruction or an explanation) being transferred is the penultimate one in the speaker’s planned series. This is manifested by the fact that an utterance with a H*H-H% melodic shape is always followed by one having a final falling (declarative) contour, whereas utterances characterised by L*L-H% are normally followed by further non-final ones.

On the other hand, it is noted that not all IGs made use of this pre-final intonational strategy in the four Map Task dialogues. Moreover, speakers IG2 and IG3 – the ones in whose speech productions H*H-H% melodic curves were observed – use this strategy only to pre-signal the end of the last Instructing game (i.e. instructions/explanations for drawing the last portion of the path including the arrival), corresponding to the end of the whole task (when the intended series of instructions/explanations necessary for getting the Instruction Follower to draw the path on his/her map is completed). Such a localized phenomenon is easy to understand if one considers that the pre-finality strategy implies the possibility for the IG to express verbally the planned sequence of instructions s/he intends to transfer in order to reach his/her specific conversational goal. This cannot be obtained easily in a dialogue, where interruptions - i.e. insertions of IF conversational moves like querying, checking, etc. - are very frequent. This is in fact the case in the Bari Italian Map Task dialogues under examination. The more instructing games are embedded with Checking, Querying, etc. games, the more the IG planned organisation of information to be transferred is subject to re-plannings and modifications in general. This could explain IG2 and IG3’s limited use of the pre-final intonational strategy, and also IG1 and IG4’s complete absence of such pre-final contours: as a matter of fact, dialogue1 and dialogue4 were characterised by a greater number of interruptions from the part of their respective IFs. It may be hypothesised that speakers who have to perform the same task (describing a route) in a monologue instead of a dialogue may have more chances to convey verbally the planned sequence of instructions.

4. Map Task monologues

In order to verify the above mentioned hypothesis, IG1 and IG4 (i.e. the ones whose speech had no cases of pre-final contours) were asked to perform a supplementary recording session, where they had to describe the same route as in their respective dialogues, using the same map, but this time to a silent partner (the author). The latter knew both IG1 and IG4 personally. They were also asked, once they had finished with the path describing task, to mention all the landmarks present on their maps, according to the sequence given in the route (from the start to the end). Finally, they were asked to read aloud six differently randomised lists containing the names of all the landmarks drawn in their maps (for details, see section 5 below). This task was done in order to verify possible use of pre-final intonation strategies in cases where, as in lists, the sequence of items is clearly defined and already determined.

4.1. Non-finality

As expected, extensive use of the default non-final L*L-H% contour is observed also in Map Task monologues by both IG1 and IG4 speakers. In addition to that, two different non-final intonation contours have been found. The first one is characterised by a peak on the accented syllable followed by a falling movement, which is phonologically described with the sequence: H* L-L% (an example is shown in Fig. 3). As for L*L-H%, this contour is always followed by further non-final utterances, but not necessarily with the same shape. Regarding the meaning, the falling H* L-L% conveys more assertiveness in comparison to the rising L*L-H%. The former seems very similar in shape and meaning to the one described for Palermo Italian [11].
Besides that, a further non-low terminal contour was also attested in both speakers’ monologues, i.e. one also having a peak on the nuclear syllable but this time followed by a plateau. This shape is described with the phonological sequence H*H-L%, and an example is shown in Fig. 4. As for the two non-final melodic curves discussed above, utterances with H*H-L% are always followed by further non-final ones having normally but not necessarily the same shape. Examples of H*H-L% contours in the two dialogues were typically found from the middle of the monologue onwards, i.e. when part of the route had been already described: H*H-L% seems to convey a sort of “bored” attitude from the speaker to recall the instructions series. This is not surprising, as in the monologues both IG1 and IG4 were asked to perform the same describing task (using the same map) as in their respective Map Task dialogues.

At this preliminary stage it is hypothesised that the choice between a falling or a rising boundary tone depends on some paralinguistic added meaning (as speaker’s attitude), which does not influence the basic pre-finality communicative function attributed to this contour. A pre-accentual rise is also to be noted in this contour (as can be noted in Fig. 5): the issue is open for further investigation as to the contribution of this pre-accentual rise to the pre-finality meaning. This issue may play an important role also in casting light upon the phonological description of falling nuclear accents in Bari Italian intonation. In previous autosegmental-metrical accounts of Bari Italian intonation, the phonological category H+L* has been used for describing a gradual (less steep than the pre-final) nuclear falling movement in narrow focus declarative contours (for details, see [12]). Moreover, a downstepped version of this accent is used in broad focus neutral declaratives (for details, see [12]). More research is needed to ascertain whether the steepness in the slope of the fall is sufficiently distinct in the narrow focus and the pre-final falls to warrant a different phonological description. As a final observation, in the two monologues pre-final H+L*L-L% and H+L*L-H% utterances are always followed by final (declarative) utterances. They are used to signal that one of the following is to follow immediately: a) the end of a set of instructions aiming at describing a sub-portion of the route; b) the end of the whole task; c) the end of the sequence of all the landmarks drawn on the map and mentioned after the route describing task.

4.2. Pre-finality

This time, both IG1 and IG4 made use of pre-final intonation contours in their route describing monologues. Yet differently from expected, they were not the same pre-final continuation rise H*H-H% found in IG2 and IG3 speech productions of Map Task dialogues.

In this case, both IG1 and IG4 pre-final utterances are characterised by a stepdown-to-low movement on the accented nuclear syllable, with a peak on the pre-nuclear syllable and the valley on the accented vowel. After the nuclear fall, pitch stays low until the end of the phrase or, alternatively, it may rise at the end. This contour is phonologically described with the sequence H+L*L-L% in the first case, and with H+L*L-H% in the second case. An example of the former is shown in Fig. 5.

Figure 5: non-final H*H-L% “c’è una curva sulla sinistra…” (there is a curve on the left…)

Figure 4: non-final H*H-L% “dopodiché vai a sinistra…” (afterwards go to the left…)

Figure 5: pre-final H+L*L-L% “dimora per animali…[e arrivo.] (animals’ house… [and arrival.])

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5. Read lists

Speakers IG1 and IG4 were also asked to read aloud twice a set of 6 differently randomised lists containing all the landmarks’ names which were present on their respective
maps. In the randomization process, it was however assured that words with different stress position appeared at least once, in turn, as penultimate item in the list. Intonation analysis of the IG1 and IG4 read speech productions shows that only the L*L-H% contour is used to signal non-finality in lists. This result seems to confirm the interpretation of such a contour as the default, unmarked one conveying non-finality. As far as pre-finality is concerned, no clear tendency can be determined: in very few cases, the H*H-H% contour is observed on the penultimate item in the list (more precisely, two cases for IG1); in another few cases (three cases for IG4) the H*L*L-L%H% is found. In some other cases, pre-finality is not signalled at all, the penultimate items often being characterised by the default non-final L*L-H%. These results lead to the consideration that, despite the fact that it is a linguistic task, this elicitation method does not appear to guarantee strong control over speakers’ productions, at least as far as pre-final intonational strategies are concerned.

6. Discussion
As shown in Table 1, the Bari Italian intonation system presents a rich inventory of contours for signalling discourse structure, more specifically, regarding non-finality and pre-finality, both in spontaneous and read speech. Some of these intonational choices reflect the general tendency, that non-finality is conveyed by non-low boundary tones, whereas finality is expressed by low boundary tones. Besides that, Bari Italian also has melodies ending with low boundary tones. These are used both to signal that a series of utterances are connected in a subordination relationship (non-finality), and to pre-signal the end of such a series (pre-finality). L*L-H% is the unmarked melodic shape used for signalling non-finality. At this preliminary stage of analysis, it cannot be established which is the unmarked contour for finality. As far as pre-finality is concerned, no clear tendency can be determined: in very few cases, the H*L*L-H% contour is used for signalling non-finality. At this preliminary stage of analysis, it cannot be established which is the unmarked contour for conveying finality. In general, it can be observed that the choice among different alternative contours in the two groups (non-finality and pre-finality) may depend on parameters like speaker’s attitude, involvement, etc., although this has to be confirmed by further investigation.

| Table 1: Non-final and pre-final tonal sequences in Bari Italian |
|------------------------|---------------------|
|                        | NON-LOW BOUNDARY    | LOW BOUNDARY     |
| NON-FINAL              | L* L-H%             | H* H-L%          |
| PRE-FINAL              | H* H-H%             | H* H-L%          |
|                        | H*L*L-L-H%          | H*L*L-L-L%       |

7. Summary and future work
In this paper, a preliminary account of intonational strategies realized by Bari Italian speakers in signalling non-finality and pre-finality in discourse organisation is presented and discussed. Results coming from analysis of Map Task dialogue and monologues demonstrated that a quite rich inventory of intonational choices are available to Bari Italian speakers for conveying subordination relationships within a sequence of information, but also for pre-signalling the end of the sequence. Interpretation of the meaning/function of the contours is based here on both contextual analysis and the author’s native speaker intuitions; nevertheless perceptual judgement experiments along the lines of [4] for Dutch are planned, in order to confirm such interpretations. Moreover, the observation of another falling accent in pre-final H*L*L-L% and H*L*L-H% curves, in addition to the one previously found for neutraldeclaratives in Bari Italian, opens the way to further investigations in order to determine a more suitable phonological description of the two different falling accents in Bari Italian intonation system found so far. Finally, it has been observed that use of pre-final intonation contours is not systematic and clear-cut in read lists, even if the intrinsic nature of a list reading task would seemingly lead to the contrary hypothesis. These results seems to indicate that in studying pre-final intonational strategies, simple list reading is not a fully reliable method for eliciting speech material for intonation analysis.

Acknowledgments
I would like to thank Martine Grice for helpful suggestions in preparing the final version of this paper.

8. References