Individual variability in Salerno Italian intonation: evidence from read and spontaneous speech

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In the last two decades, research on Italian intonation, especially within the Autosegmental-Metrical (AM) framework (Pierrehumbert, 1980; Ladd, 2008), has been rather prolific, and has shown the presence of considerable variability, not only across the different regional varieties, but even within the same variety (Gili Fivela et al., 2015). However, not every variety has received the same degree of attention by the scientific community: extensive research has been carried out, for example, for Neapolitan (D'Imperio, 1997; 2000; 2002), Pisa (Gili Fivela, 2008), and Bari Italian (Grice and Savino, 1997; Savino and Grice, 2011), and much less attention has been given to other varieties. In addition, the studies mentioned above have been conducted with different speech styles (read or spontaneous speech) and often using the AM framework in very different ways, with the exception of only a few studies that have attempted to provide a unified account of several varieties (Grice et al., 2005; Gili Fivela et al., 2015).

The aim of this study is to add to the literature on Italian intonation by providing an account of the basic phonological inventory of the tonal categories of Salerno Italian (SI), a variety that has not received much investigation in the past, and to specifically address the issue of the huge intra-variety variability.

The basic inventory of pitch accents and boundary tones in SI has been established by analyzing the productions of 4 speakers (2 males and 2 females) performing a Discourse Completion Task. The annotations were made using a ToBI-like annotation system (cf. Grice et al. 2005, Gili Fivela et al. 2015). The types of utterance analyzed are: i) broad focus statements, ii) narrow focus statements, and iii) yes-no questions (having different dialogical sub-functions, *i.e.* information-seeking, confirmation-seeking, counter-expectational, and echo questions). The material used for this study is a selection of the corpus used in Gili Fivela et al. (2015). The prosodic labeling was performed by the first author and then a representative sample of the annotations was verified by the last author (an expert labeler).

The analysis of the speech material shows the presence of three pitch accents that can occur in nuclear position: H+L*, typically found in broad focus statements; L*+H, typically found in yes-no questions; and L+H*, found in both narrow focus statements and yes-no questions. Previous investigations of the tonal system of SI propose the existence of a fourth nuclear pitch accent, *i.e.* H*+L, which is claimed to be used to mark narrowly focused constituents in statements, as opposed to the L+H* found in polar questions; the phonetic difference between the two accents is claimed to lie in the timing of the H* target, which is earlier in H*+L (Gili Fivela et al. 2015: 160); we argue that such phonological contrast does not exist and we use the label L+H* for both accents. Also, an H* pre-nuclear pitch accent has been found, which can occur in both statements and questions. As for the boundaries, both low (L%) and high (H%) tones are found in SI. In particular, statements – both broad and narrow focus – show systematically an L% at the end of the intonational phrase, while yes-no questions can end with both rising and falling tones.

While the tonal realization of statements appears highly consistent (H+L* L-L% for broad focus statements and L+H* L-L% for narrow focus statements), the analyses of polar questions show that their realization is much more variable: four different polar question tunes have been found, two of which are very frequent, *i.e.* L*+H L-L% and L+H* L-H%, which together amount to the 74% of the question patterns, and other two with lower frequency, *i.e.* L*+H L-H% and L+H* L-L%. Figure 1 shows the distribution of the different question tunes across the four speakers. As mentioned above, the polar questions analyzed include questions with different sub-functions; nevertheless, the different pragmatic uses of questions alone cannot explain the huge variability found in their distribution, which we argue to depend on a complex interplay between function and individual variability. In particular, we provide evidence of the fact that the choice of pitch accent is related to the interaction between question function and speaker, while the choice of boundary tone is mainly dependant on individual variability.

The issue of individual variability in yes-no questions is being currently investigated in a corpus of spontaneous speech: 5 pairs of SI native speakers were recorded while engaging in a ten-minute dialogue, using the 'Spot the Difference' dialogical game as elicitation technique. The analysis of polar questions in spontaneous speech, and its comparison with the tonal realization of read questions, provides an in-depth

investigation of the use and frequency distribution of question tunes in SI, as well as allowing us to address some of the issues that still remain unresolved concerning question tunes distribution in Italian. In particular, it has been claimed that in some varieties the choice between a final fall (L%) or a rise (H%) in polar questions might depend on different speaking styles, *i.e.* read vs. spontaneous speech (cf. Gili Fivela et al., 2015); previous studies on Bari Italian, for example, argue that while the choice of pitch accent can be related to the different dialogical uses of polar questions, the difference between L% and H% is only dependant on stylistic choices, with the rising variant being typical of read-aloud speech (Refice et al. 1997; Grice and Savino, 1997). We argue that this is not the case in SI and that the distribution of falling vs. rising terminal contours is consistent across different speaking styles. However, results concerning this part of the study are yet to be properly interpreted and will be discussed at the conference.

Figure 1 – Distribution of the four question tunes across pragmatic functions, divided by speaker. The pragmatic functions are: Information-seeking (IS), Confirmation-seeking (CS), Counter-expectational (CS), and Echo questions (E)
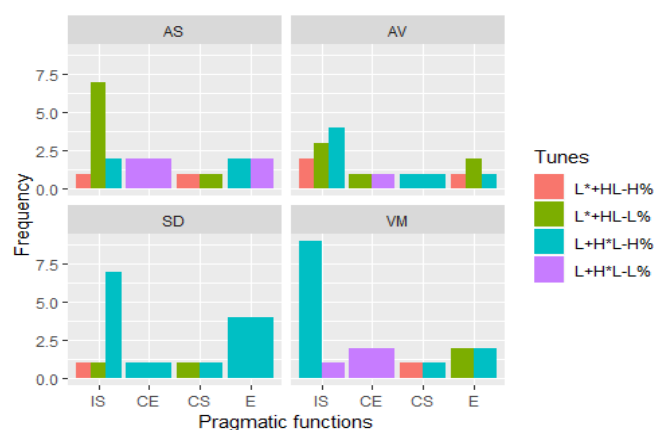
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