

Anti-Romance laryngeal patterns in Italian phonology

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In the literature of laryngeal phonology all Romance languages are depicted as “voice languages”, exhibiting a binary laryngeal distinction between a voiced *lenis* and a voiceless *fortis* set of obstruents (Wetzels and Mascaró 2001; Petrova et al. 2006; etc.). Voice languages are characterised by *regressive voice assimilation* (RVA) due to the phonological activity of [voice] (Petrova et al. 2006; Cyran 2014). Italian manifests a process similar to RVA, called preconsonantal s-voicing; that is, /s/ becomes voiced before voiced consonantal segments; e.g., *sparo* [sp] ‘gunshot’ vs. *sbarra* [zb] ‘barrier’, *sveglia* [zv] ‘alarm clock’, *smettere* [zm] ‘to stop’, *slitta* [zl] ‘sled’, etc. (Nespor 1993; Bertinetto 2004; Krämer 2009). Since /sC/ is the only obstruent cluster in Italian phonotactics, Italian seems to fulfil the requirements for being a prototypical voice language. However, this paper argues that s-voicing is not an instance of RVA, at least from a synchronic phonological point of view.

Data:

This study is built on a loanword test: 15 Italian informants (from different dialectal zones) were recorded in a soundproof studio, who repeated five times 18 Italian sample texts containing 108 target loanwords (e.g., *vo/dk/a*, *foo/tb/all*, *a/fq/ano*, *iceberg /sb/* etc.). The overall statistics reveal that the informants retain the underlying voice values in the respective obstruent clusters in 65% of the cases; that is, they avoid RVA in a two-thirds majority, which characterises the performance of all the informants rather evenly. Uniformity in voicing also occurs in the data: 20% out of the marked clusters is devoiced (e.g. *vo[tk]a*, *foo[tp]all*); however, regressive voicing (e.g. *foo[db]all*) is attested only in 4%.

Apart from the results regarding RVA, VOT-values were also measured for prevocalic initial and intervocalic medial /p, t, k/. The total mean values are the following: /p/ – 24.04651 ms; /t/ – 27.46512 ms; /k/ – 46.12346 ms. These values are intermediate between those found in classical voice languages and aspiration languages (cf. Lisker & Abramson 1964), and they broadly coincide with the formerly measured VOT averages of Italian varieties (cf. Stevens and Hajek 2010; etc.).

RVA vs. preconsonantal s-voicing:

RVA and Italian preconsonantal s-voicing essentially differ at every level of a synchronic comparison: in the input, in the trigger, in the domain of application and in the frequency of the processes. More precisely, in Italian only sibilant fricatives may undergo voicing before consonants (even palatal sibilants, e.g. *kala*[ʒ]nikov, *kri*[ʒ]na, etc.). However, other obstruents (which appear in loanwords) do not assimilate for [voice] (cf. the data presented above). RVA found in voice languages is a typically postlexical process, i.e., the domain of application of RVA is the phonological utterance (Nespor & Vogel 1986). On the other hand, Italian preconsonantal s-voicing does not take place at the word boundary, and it is often blocked at morpheme boundaries as well, e.g. *autobus bianco* [sb] ‘white bus’, *gasdotto* [sd] ‘pipeline’, *iceberg* [sb], etc. (Bertinetto 2004; etc.). Accordingly, we can restrict the domain of application of Italian preconsonantal s-voicing to the phonological word, that is, it is not a postlexical process like RVA. In conclusion, we claim that Italian has a strictly conditioned voicing process, which regularly lenites word-initial /s/ to [z] before voiced consonants, but it does not have classical postlexical “across-the-board” RVA.

Discussion:

Cyran (2011, 2014, 2017) claims in his framework called Laryngeal Relativism (LR) that as long as a sufficient phonetic distance is kept between two sets of obstruents (e.g., voiced–voiceless, aspirated–unaspirated) to maintain phonological contrast, both the marked and the unmarked sets may receive any (more or less arbitrary) phonetic interpretation. That is, phonetic interpretation is partly phonological.

According to LR, only regressive voicing is true phonological evidence for RVA, since what appears to be devoicing may not be the result of a process at all but the realisation of an underlying voiceless segment which surfaces unchanged in the absence of passive voicing – stemming from the lack of a source element. This is the laryngeal characterisation of aspiration languages in the LR typology: they may seem to exhibit “bidirectional devoicing” (i.e., progressive or regressive devoicing); instead, they

are analysed as having voiceless unaspirated lenis and voiceless aspirated fortis underlyingly, with no true laryngeal activity; therefore, the “devoicing processes” they appear to display are not processes at all, since the voiceless forms are not derived but underlying. In the case of our data, a mere 4% of the relevant clusters provide really hard evidence that RVA is indeed at work; that is, we can conclude even from the point of view of LR that RVA is not operational in the synchronic phonology of Italian.

Furthermore, our data strongly suggests that Italian is entirely suitable to be handled as not a voice language, but an aspiration language, instead. The main motivation for this idea is the absence of voice-spreading in Italian phonology (i.e., the lack of RVA), and the mild aspiration found in Italian voiceless stops, whose values fall between the standard VOT means measured for voice languages and aspiration languages. The characterisation of Italian laryngeal phonology appears to be very similar to that of Swedish (Helgason & Ringen 2008). The main phonetic difference between the two languages is that the fortis series of stops is heavily aspirated in Swedish, while only mildly aspirated in Italian; however, the lenis set is equally prevoiced, and neither languages present RVA. According to LR, there are languages which simply “overshoot” the minimal phonetic distance which is required to obtain the laryngeal contrast among obstruents, apparently so do Swedish and Italian. Aspiration found in Italian can also be considered a phonetic side-effect which does not bring phonological consequences, as well as prevoicing found in Swedish lenis stops is also considered phonologically irrelevant.

However, we can also consider the mild aspiration found in Italian phonologically relevant, and analyse the system as an aspiration language. In these languages the fortis and lenis sets differ in structural aspects, and there is no laryngeal spreading (that is, RVA). If the sufficient discriminability in production and perception is a major driving force in the phonetic implementation of phonological contrasts – as claimed in LR –, languages with voiced lenis series and aspirated fortis series may belong to the same system. As far as Italian is concerned, from a phonetic point of view we find substantial voicing in lenis obstruents and voicelessness in the fortis set; phonologically, however, we fail to identify true laryngeal activity. In the present system, this suggests that Italian can be categorised as an aspiration language similar to Swedish, making phonetic use of the sufficient discriminability between fully voiced and voiceless mildly aspirated stops.

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