Anti-Romance laryngeal patterns in Italian phonology

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1. Romance in Laryngeal Realism

1.1 The framework

- **Laryngeal Realism** (Iverson & Salmons 1995; Honeybone 2002, 2005; Petrova et al. 2006; Cyran 2011, 2014; Beckman et al. 2013; etc.)

<table>
<thead>
<tr>
<th>Voice languages</th>
<th>Aspiration languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marked laryngeal feature: [voice]</td>
<td>Marked laryngeal feature: [spread glottis]</td>
</tr>
<tr>
<td>Opposition: [p t k] ~ [b d g]</td>
<td>Opposition: [b̥ d̥ ɡ̥] ~ [pʰ tʰ kʰ]</td>
</tr>
<tr>
<td>Fortis: voiceless unaspirated</td>
<td>Fortis: voiceless aspirated (marked)</td>
</tr>
<tr>
<td>Lenis: voiced unaspirated (marked)</td>
<td>Lenis: voiceless unaspirated</td>
</tr>
<tr>
<td>Slavic and Romance languages, etc.</td>
<td>Most Germanic languages, Chinese, etc.</td>
</tr>
<tr>
<td>Regressive Voice Assimilation: <em>vodka</em> → <em>vo[tk]a</em></td>
<td>No active voice:</td>
</tr>
<tr>
<td><em>football</em> → <em>foo[db]all</em></td>
<td><em>vodka</em> → <em>vo[dʰkʰ]a</em></td>
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1. Romance in Laryngeal Realism

1.2 Regressive Voice Assimilation (RVA)

- Romance languages are considered voice languages (Petrova et al. 2006, etc.)
- Due to the phonological activity of [voice] they exhibit RVA

- RVA: Obstruent assimilation for [voice] from the rightmost member of a cluster

- Devoicing: /B/ + /T/ → [PT]
- Voicing: /P/ + /D/ → [BD]
1. Romance in Laryngeal Realism

1.2 Regressive Voice Assimilation (RVA)

Romance examples for RVA:

a) Word-internal voicing by RVA

(Port.) *Lisboa* [ʒb] ‘Lisbon’ (Mateus & D’Andrade 2000: 142)
(Sp.) *fútbol* [ðβ] ‘football’ (Colina 2006: 186)
(Rom.) *totdeauna* [d:] ‘always’ (Wetzels & Mascaró 2001: 221)

b) Word-internal devoicing by RVA

(Sp.) *obsoleto* [ps] ‘obsolete’ (Colina 2006: 188)
(Fr.) *médecin* [ts] ‘physician’ (Snoeren et al. 2006: 243)
1. Romance in Laryngeal Realism
1.2 Regressive Voice Assimilation (RVA)

Romance examples for RVA:

c) Sandhi voicing by RVA

(Cat.) *cap dau* [bd] ‘no dice’ (Recasens 2014: 165)
(Cat.) *gos bo* [zB] ‘good dog’ (Recasens 2014: 165)
(Rom.) *aş vrea* [ʒv] ‘I would like’ (Wetzels & Mascaró 2001: 220)

d) Sandhi devoicing by RVA

(Fr.) *robe sale* [ps] ‘dirty dress’ (Snoeren et al. 2006: 243)
(Port.) *dez patos* [ʃp] ‘ten ducks’ (Mateus & D’Andrade 2000: 145)
1. Romance in Laryngeal Realism

1.3 The case of Italian

- In Italian phonotactics /sC/ is the only obstruent cluster (Krämer 2009, etc.)
- /s/ undergoes a voicing process before voiced C: preconsonantal s-voicing
- The literature treats it as a form of RVA (Nespor 1993: 74-76; Bertinetto 1999: 271; Bertinetto & Loporcaro 2005: 134; Krämer 2009: 209; etc.)

<table>
<thead>
<tr>
<th>a. /s/+voiceless obstr.</th>
<th>b. /s/+voiced obstr.</th>
<th>c. /s/+sonorant</th>
</tr>
</thead>
<tbody>
<tr>
<td>[sp]aro ‘gunshot’</td>
<td>[zb]arra ‘barrier’</td>
<td>[zm]ettere ‘to stop’</td>
</tr>
<tr>
<td>pa[st]a ‘pasta’</td>
<td>[zd]egno ‘disdain’</td>
<td>[zn]ello ‘thin’</td>
</tr>
<tr>
<td>a[sk]oltare ‘to listen’</td>
<td>[zg]abello ‘footstool’</td>
<td>[zl]itta ‘sled’</td>
</tr>
<tr>
<td>[sf]era ‘sphere’</td>
<td>[zv]eglia ‘alarm clock’</td>
<td>[zr]otolare ‘to unroll’</td>
</tr>
</tbody>
</table>
2. RVA vs. It. preconsonantal s-voicing

<table>
<thead>
<tr>
<th></th>
<th>RVA</th>
<th>Preconsonantal s-voicing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input:</strong></td>
<td>Any obstruent</td>
<td>Only sibilant fricatives</td>
</tr>
<tr>
<td><strong>Trigger:</strong></td>
<td>Segments with distinctive voice (obstruents)</td>
<td>Voiced consonantal segments (even sonorants and glides)</td>
</tr>
<tr>
<td><strong>Domain:</strong></td>
<td>The utterance (postlexical)</td>
<td>The phonological word (lexical)</td>
</tr>
<tr>
<td><strong>Occurrence:</strong></td>
<td>Obligatory</td>
<td>Optional (except word-initially)</td>
</tr>
</tbody>
</table>
2. RVA vs. It. preconsonantal s-voicing

2.1 The input

- Only sibilant fricatives may undergo voicing.

- Mostly /s/ and palatalised sibilants in regional accents, e.g. (Central-Southern Italian) *sbirro* [ʒb] ‘policeman’, *sviluppo* [ʒv] ‘development’, *asma* [ʒm] ‘asthma’, etc. (Huszthy 2017: 197)

- Moreover, /ʃ/ in loanwords of Standard Italian, e.g. *kalashnikov* [ʒn], *krishna* [ʒn], etc. (Huszthy 2019: 104)

- In non-/sC/ obstruent clusters RVA does not take place, e.g. *afgano* ‘Afghan’, *substrato* ‘substrate’, *abside* ‘apse’, *feldspato* ‘feldspar’ and *tungsteno* ‘tungsten’ (Muljačić 1972: 91)

- Huszthy (2019) aims to definitely point out that Italians do not apply RVA in loanwords or in their foreign accent.
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2.1 The input
2. RVA vs. Lt. preconsonantal s-voicing
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<table>
<thead>
<tr>
<th>Cluster type</th>
<th>Target word</th>
<th>Most typical realisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DT</strong></td>
<td><em>sudcoreano</em> ‘South Korean’</td>
<td>[sudkore'a:no]</td>
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<tr>
<td></td>
<td><em>subcultura</em> ‘subculture’</td>
<td>[subkul'tu:ra]</td>
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<tr>
<td></td>
<td><em>ragtime</em></td>
<td>[reg'tajmə]</td>
</tr>
<tr>
<td></td>
<td><em>Südtirol</em> ‘South Tyrol’</td>
<td>[sudti'rolə]</td>
</tr>
<tr>
<td><strong>TD</strong></td>
<td><em>McDonald’s</em></td>
<td>[mek'dɔ:nald]</td>
</tr>
<tr>
<td></td>
<td><em>upgrade</em></td>
<td>[ap'grejdə]</td>
</tr>
<tr>
<td></td>
<td><em>football</em></td>
<td>['futbalə]</td>
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<tr>
<td></td>
<td><em>Sampdoria</em></td>
<td>[samp'dɔ:rja]</td>
</tr>
<tr>
<td><strong>C + fricative</strong></td>
<td><em>gangster</em></td>
<td>['ga:ŋster]</td>
</tr>
<tr>
<td></td>
<td><em>abside</em> ‘apse’</td>
<td>[ˈaːbside]</td>
</tr>
<tr>
<td></td>
<td><em>Afganistan</em> ‘Afghanistan’</td>
<td>[afˈgaːnistan]</td>
</tr>
<tr>
<td></td>
<td><em>sovkhоз</em></td>
<td>[ˈsovkoθdʒ]</td>
</tr>
<tr>
<td><strong>C + affricate</strong></td>
<td><em>eczema</em></td>
<td>[ekˈdɛzəma]</td>
</tr>
</tbody>
</table>
2. RVA vs. It. preconsonantal s-voicing

2.1 The input

- 15 Italian speakers
- 19 sample texts
- 51 target words for RVA
- 1685 obstruent clusters
- 1096 No RVA
- 246 RVA
- 155 progressive devoicings (PD)
- 188 other cases (e.g. deletion)
2. RVA vs. It. preconsonantal s-voicing

2.2 The trigger

- RVA may only arise between consonants contrastive for [voice], namely obstruents
- In Italian, sibilant fricatives may undergo voicing before any consonantal segment, sonorants and glides included
- In Italian we find presonorant voicing, e.g. a[z]ma, [z]nob, etc.
- Some phonologists analyse presonorant voicing as basically phonetic (passive voicing), and only partly systemic (Cyran 2011, 2012, 2014)
- Furthermore, in Italian /s/ often gets voiced before the glide /w/ in loanwords like *swimming* [zw], *suite* [zw], *swing* [zw], etc. (Huszthy 2019: 104-105)
2. RVA vs. It. preconsonantal s-voicing
2.3 The domain of application

- RVA found in voice languages is typically a postlexical process, viz., “it applies across any type of boundary as long as no pause intervenes” (Siptár & Törkenczy 2000: 198)

- The domain of application of RVA is the phonological utterance (Nespor & Vogel 1986: 229-230)

- Italian preconsonantal s-voicing does not take place at the word boundary, e.g. (It.) *rebus difficilissimo* [sd] ‘a very hard riddle’, (It.) *autobus bianco* [sb] ‘white bus’ (Nespor 1993: 74); *lapis blu* [sb] ‘blue pencil’ (Bertinetto 1999: 271)

- Sometimes s-voicing is blocked at morpheme boundaries as well, for instance, at the edge of compound words, e.g. *gasdotto* [sd] ‘pipeline’ (Bertinetto 1999: 280), *facebook* [sb], *iceberg* [sb] (Huszthy 2019: 99); etc.
2. RVA vs. It. preconsonantal s-voicing

2.4 Occurrence

- RVA, being postlexical, is considered obligatory, i.e., exceptionless
- Preconsonantal s-voicing is consistent word-initially in Italian; however, it appears to be optional word-internally
- E.g., the (Eng.) loanword *slash* is regularly pronounced by Italians with [z], but in the compound word *backslash* the voicing process in the same cluster is optional
- s-voicing is optional in new loanwords as well, like in *iceberg* [sb]/[zb], *facebook* [sb]/[zb], *frisbee* [sb]/[zb], *baseball* [sb]/[zb], etc. (Huszthy 2019)
- In conclusion, preconsonantal s-voicing seems a tendency rather than a “rule” in the synchronic phonology of Italian
3. Synchronic Italian laryngeal phonology

3.1. General symptoms

- Prevoiced initial lenis stops [b, d, g]
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- Prevoiced initial lenis stops [b, d, g]
- Mildly aspirated initial fortis stops (Huszthy 2019)
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- Prevoiced initial lenis stops [b, d, g]
- Mildly aspirated initial fortis stops (Huszthy 2019)
- Phonological opposition upon the [voice] feature

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<tr>
<th>Contrastive obstruents</th>
<th>Minimal pairs illustrating Italian obstruent voice-oppositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>/d/-/t/</td>
<td>c) <em>denti</em> ['denti] ‘tooth, pl.’ vs. <em>tenti</em> ['tenti] ‘to attempt, 2sg’</td>
</tr>
<tr>
<td>/dʒ/-/tʃ/</td>
<td>g) <em>giro</em> ['dʒi:ro] ‘turn’ vs. <em>Ciro</em> ['tʃi:ro] ‘first name’</td>
</tr>
<tr>
<td>/v/-/f/</td>
<td>i) <em>vede</em> ['ve:de] ‘to see, 3sg’ vs. <em>fede</em> ['fe:de] ‘faith’</td>
</tr>
</tbody>
</table>
3. Synchronic Italian laryngeal phonology

3.1. General symptoms

- Prevoiced initial lenis stops [b, d, g]
- Mildly aspirated initial fortis stops (Huszthy 2019)
- Phonological opposition upon the [voice] feature
- The lack of RVA in non-/sC/ obstruent clusters (no true laryngeal activity)
- Morphologically conditioned optional voicing in /sC/ clusters
3. Synchronic Italian laryngeal phonology

3.2. Discussion

- Cyran’s Laryngeal Relativism: “Sufficient discriminability” in production and perception is a major driving force in the phonetic implementation of phonological contrasts (Cyran 2011, 2014, 2017)

- “Swedish goes for maximal dispersion rather than for sufficient phonetic distance” (Cyran 2017: 502)

- Italian: the phonetic distance between lenis and fortis is more than sufficient, but not as extreme as in Swedish

- Three subtypes L in the marked series of obstruents (e.g. voice languages); h-systems: the absence of a source element (e.g. aspiration languages); H in the marked series of obstruents (e.g. Cracow Polish) of binary laryngeal systems

- This three-way typology, combined with Cyran’s “sufficient discriminability”, accommodates Italian and Swedish as h-languages
Conclusion

- Italian exhibits substantial voicing in lenis obstruents
- The fortis set is basically voiceless mildly aspirated
- No true laryngeal activity is detected (RVA)
- The “devoicing processes” (PD, RVA in DT-clusters) are not processes, since the voiceless forms are not derived but underlying
- Actually, Italian is a kind of Swedish

Thank you for your kind attention!
References