Velopharyngeal opening during the homorganic articulations in some variants of a language.

by Paolo ZEDDA
Université Lyon2 and École Nationale de Musique de Beauvais
Conservatoire National Supérieur de Musique et Danse de Paris
Association Française des Professeurs de Chant

We can observe in many singers of different vocal repertoires (from opera to popular repertoires), some resemblance in the quality of their diction, with phonetic particularities already found in their speaking voice. If we consider good diction as an allophonic system acting as a variant of a language (Zedda, 1993/1) and allowing an excellent and healthy use of the vocal tract, we could better understand many studies stating that many professional opera singers sing some vowels with a velopharyngeal opening. Some of these studies are quite recent: Millet (1995), Birch & al. (2002), Bauer (2002), etc…

This phenomenon of a velopharyngeal opening during the pronunciation of a vowel is largely diffused in singers (and speakers!) of any repertoire, having a “particular” place and manner in their articulations and also facilitating good resonance for the voice. However, this has long been concealed in the restrictive and conflicting conceptions between oral and nasal articulations (Zedda 2003). In the following table we can observe words with homorganic nasal sounds which can mix both oral and nasal, producing a particular place for the voice.

<table>
<thead>
<tr>
<th>API symbol</th>
<th>Italian</th>
<th>Spanish</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ŋ] or [n]</td>
<td>Cinque [ˈtʃɪŋkwe]</td>
<td>Cinco</td>
<td>Thinking</td>
<td>Links</td>
</tr>
<tr>
<td>[ŋ] or [n]</td>
<td>Non farlo [noŋˈfarlo]</td>
<td>Un fuego</td>
<td>In fact</td>
<td>Vom Fach sein</td>
</tr>
<tr>
<td>[m] or [n]</td>
<td>In piedi [imˈpjedi]</td>
<td>En persona</td>
<td>In peace</td>
<td>Ein Pfeil</td>
</tr>
<tr>
<td>[n/m] or [n̩]</td>
<td>Non mi dire [nomaiˈdire]</td>
<td>Dération con mi</td>
<td>In my arms</td>
<td>in meinem Herzen</td>
</tr>
<tr>
<td>[n] or [n̩]</td>
<td>Ben [ˈben]</td>
<td>También</td>
<td>Ridden</td>
<td>Schmerzen</td>
</tr>
<tr>
<td>[m] or [n̩]</td>
<td>Andiam [anˈdjam]</td>
<td>Portuguese: pedem</td>
<td>Organism</td>
<td>Stumm</td>
</tr>
</tbody>
</table>

Table 1
If we consider nasalisations like the contiguous and relaxed nasal sounds (important, England, bosom, etc…) and we distinguish them from the nasal consonants like the momentary and tense nasal sounds (nominate, many, etc…), we can build a listening “reference” for sounds we need in a good speaking and singing voice (in all repertoires!), and help pedagogues to obtain a better vocal training (Zedda, 1998).

If we observe a good integration of the vowel and the nasal resonance, without noticeable breaks from the vowel to the nasal sound, we have than established an ideal articulatory "place", with a velopharyngeal opening, that allows all vowels to glide from the lowest to the highest part of the voice keeping an equal capacity of resonance in all registers. This articulatory reference allows the voice to feel a vocal mechanism in order to obtain “light vocalizes” (mezza voce) and to go from a low note to a higher one and thus extend “the range of any of the registers” as was conceived by Oren L. Brown (Brown, 2003). In fact in some variants of our languages, the velum can take intermediate positions, as Fernand Carton (1974) established for French, or Felicity Cox for English … From the “squillo”, of the ancient Italian terminology for vocal technique, to the "shimmer" in Bartholomew (1934), the "ring" in Winckel (1956) and Vennard (1964), and, at last, the “singer’s formant” in Sundberg (1968/1969/1970), different kinds of researchers have tried to find explanations (more or less scientific!) for the many and marvellous ways a voice achieves good and “great” resonance. Nasalisations contribute largely to obtaining this resonance!

Nasalisations are an homorganic articulatory “bridge” to obtain a comfortable place for good singing, but we need to feel, to hear, and eventually to learn, how to “cross it” in the best way!

In the past many Italian singing teachers invented exercises in order to obtain this particular oro-nasal place for the voice with a velopharyngeal opening: the “suoni filati” for instance, when they are supported by a good breathing technique, train each vowel to move from the pianissimo to the fortissimo and then back to the piano dynamic of a sound with a same vocal feeling. The “velar position” of good nasalisations reminds us of another dynamic of a sound with a same vocal feeling. The “velar position” of good nasalisations reminds us of another.

Breathing we need to feel, to hear, and eventually to learn, how to “crossing” the nasal sound, we have that the API symbols on the right side, are the proposition I made during the congress Il Parlatto Italiano. See the bibliography: Zedda, P. (2003)

Bibliography (a very short list on the argument!)

- FILLEBROWN, Thomas (1911), Resonance in singing and speaking. Bryn Mawr, PA: Oliver Ditson.

* the API symbols on the right side, are the proposition I made during the congress Il Parlatto Italiano. See the bibliography : Zedda, P. (2003)
- ZEDDA, P., (1998), Linguistic variants and their effect on the singing voice, Australian Voice, Volume 4
- ZWITMAN, Daniel H.; GYEPES, Michael T.; The submentovertical projection in the radiographic analysis of velopharyngeal dynamics.

ICVT Poster Paper Presentation Schedule

Friday, August 12, 2005
12:00 Noon - 2:00 PM
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Radford, Anthony Mozart's Figaro: The role of 18th century vocal technique in building a vocal profile of Francesco Benucci.
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Heaver, Tracy The Choral Ensemble: Teaching Students Incorporating Principles of Comprehensive Musicianship
Dechance, Yvonne Songs and Society: Parlors Songs from the Turn of the (Twentieth) Century
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Sadeghpour, Mitra M. The Opera Rehearsal Process as a Rich Learning Experience

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Sapir, Shimon Vocal attrition in voice students: survey findings.
Heresniak, Marty Learning to Manipulate the Physiology of Stress
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Burdick, Barbara A Comparative Study of Female Registration in Belt Voice and Classical Technique
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Lee, Soojeong Jane Bathori's "Première Exposition de Mélodies Françaises," Paris, 17 May 1926: An Examination of the Program, Its Background, and Selected Songs
Mastrian, Stacey Italian Art Song from 1900-1950
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Simonson, Donald Understanding Overtones: Mastering the Mystery of Coffin's "Overtones of Bel Canto"