Voice Harmonization
sessions in Liège: our experience

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Vocologists

Research Unit for a life-Course perspective on Health & Education

Workshop: Speaking & Writing
Our Voice = our Identity
Goals

- Rôle
- Implication
- Duration
- Quantity

Vocal motor behavior modification

- Check the laryngeal position
- Trial and error
- [vowels]
- Balance tensions

Contrat
[Chaloner, 2000]
Understand the laryngeal mechanics
Integrate the new VMB
Improve acoustic and proprioceptive perception
Differentiate VMB

Contrat [Chaloner, 2000]

Vocal motor behavior modification

Learning

Memorization

- Rôle
- Implication
- Duration
- Quantity

- Maintain skills
- Repetition
- Recording

- Check the laryngeal position
- Trial and error
- [vowels]
- Balance tensions

- Understand the laryngeal mechanics
- Integrate the new VMB
- Improve acoustic and proprioceptive perception
- Differentiate VMB

Goals
Understand the laryngeal mechanics
Integrate the new VMB
Enhance acoustic and proprioceptive perception
Differentiate VMB

Private
Social
Professional

Contraction [Chaloner, 2000]

Check the laryngeal position
Trial and error
[vowels]
Balance tensions

Understand the laryngeal mechanics
Integrate the new VMB
Enhance acoustic and proprioceptive perception
Differentiate VMB

Adapt voice to different environments

Vocal motor behavior modification
Learning
Memorization

Rôle
Implication
• Duration
• Quantity

Maintain skills
• Repetition
• Recording

Listeners
### Approaches

#### Physiologics
- Vocal hygiene [Morsomme & Remacle, 2016; Davies et al, 2015]
- Modifying Vocal Motor Behavior [Andrews, 2006]
- Increasing $f_0$ (straw phonation) [Gelfer et al, 2019 in Adler]
- Resonant enhancement [Hardy et al, 2018]
- Articulatory precision, vowel lengthening [Hargus & Quéné, 2014]
- Increase in pauses [Oates, 2019]
- Variations in intonational contours [Hancock & Helenius, 2012]
  - With emotional situations
- Adjusting non-verbal behaviours, lexicon work [Kim, 2020]
- Working on postures and facial expressions [Dahl & Mahler, 2019]

#### Symptomatologics
- Working on the most uncomfortable VMB
- Pitch
- Include biofeedback [Kawitzky & McAllister, 2020; Morsomme & Remacle, 2021]

### One Method
- M. Astudillo, 2019, 3 methods (10 sessions)
  - Thérapie Mélodique et Rythmée [Van Eeckhout]
  - Verbo-Tonale [Guberina]
  - Méthode Proprioceptive-élastique [Borràgan]
Astudillo Method

Training sessions
Database
22 trans W / 22 Cis
10 sessions
SFF on spont. speech
Gain: + 5 to 7 semi-tones
Training - Shortime effect
5 trans W - 30' training
SFF on picture story
Gain: + 2 semi-tones
Training - 9 sessions effect
1 trans W
SFF on picture story
Gain: + 8 semi-tones
TWVQ: 69 -> 39/120
Applying Training
1 trans W - 10 Sessions
Clinician: Marion
SFF on picture story
Gain: + 5 semi-tones
TWVQ: 116 ->71/120
SFF - story on pictures
Gain: + 10 semi-tones

10 sessions

129 Hz   130 Hz   205 Hz   233 Hz
11        13        15        17
19        21        23

23 weeks

1  11   13   15   17   19   21   23
<table>
<thead>
<tr>
<th>Years old</th>
<th>Time between the last therapy session and the post therapy check.</th>
<th>Before voice therapy First evaluation</th>
<th>Results after</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>6 months</td>
<td>🎤 🎤 🎤 🎤</td>
<td>🎤 🎤 🎤 🎤 🎤</td>
</tr>
<tr>
<td>55</td>
<td>4 years</td>
<td>🎤 🎤 🎤 🎤</td>
<td>🎤 🎤 🎤 🎤 🎤</td>
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<tr>
<td>64</td>
<td>6 months</td>
<td>🎤 🎤 🎤 🎤</td>
<td>🎤 🎤 🎤 🎤 🎤</td>
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<tr>
<td>58</td>
<td>5 years therapy + surgery</td>
<td>🎤 🎤 🎤 🎤</td>
<td>🎤 🎤 🎤 🎤 🎤</td>
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<tr>
<td>20</td>
<td>18 months</td>
<td>🎤 🎤 🎤 🎤</td>
<td>🎤 🎤 🎤 🎤 🎤</td>
</tr>
<tr>
<td>50</td>
<td>18 months</td>
<td>🎤 🎤 🎤 🎤</td>
<td>🎤 🎤 🎤 🎤 🎤</td>
</tr>
</tbody>
</table>

Thank you to my patients for accepting to testify more than 6 months or even 4 years after our first interview.
Projects in progress
Workshop « Speaking & Writing »

(Fernández-Rouco N et al 2019; Alessandrin, 2018)
Workshop «Speaking & Writing»

Geneviève Damas
Workshop
Speaking & Writing

July the 6th 2022 in Berloz
Workshop
Speaking & Writing
To conclude