



**EVTA INTERDISCIPLINARY FORUM  
AIX-EN-PROVENCE, FRANCE, TUESDAY, AUGUST 30, 2011  
CONNECTING VOICE SCIENCE AND VOCAL PEDAGOGY**

***Initial Questions posed at the forum***

- How can we evaluate, monitor and make better use of research results?
- How can we get past the “Oh, that’s interesting!” or the informative stage to the practical applications?
- How should research change?
- In what areas do we need to develop our methodology?

**Discussion results**

The discussion results can be structured in four main topics.

- technology, research and the examination procedure
- medical issues
- pedagogy, methodology and research
- questions singing teachers would like answered

**One overall theme emerged during the discussions. As singing teachers we need to learn to resolve the threefold tension between**

- respectfully preserving and developing the traditional mastery of the art of teaching singing,
- tirelessly looking for generalized principles of voice production and their applications and
- creatively promoting the individuality of our students through innovative teaching.

***FORUM 1: TECHNOLOGY, RESEARCH AND EXAMINATION PROCEDURE***

**1. Research development**

- Researchers tend to begin by using their own voices. Many researchers are male, so knowledge on the function and resonance strategies of the male voice is much more advanced than that of the female voice!
  - How effective is research when it is so invasive? How could this be done without being invasive?
  - Can we combine non-invasive technology such as the EGG, ultrasound, MRI and thermography to give a new quality of data?
  - Current voice research is based on individual singing, does not have a broad enough base and needs to be extended to larger groups. Time span research is needed to
    - obtain data from large groups of students to estimate learning progress in different life times
    - evaluate the Bologna Process in regard to its influence on vocal pedagogy
  - Available programmes deal mostly with the post-phonatory phase – we need information on the pre-phonatory stage.
  - How about equipment for examining muscular interdependence?
  - More co-operation between researchers and singing teachers is imperative!
- Teachers need to
- find relevant research
  - apply available knowledge to teaching
  - propose important subjects for further research

## 2. Technology and science in the teaching studio

- How useful are new technologies in the voice studio?
  - equipment must be easy to set up, be mostly self-explanatory, have good quality and offer reliable data
- There is so much knowledge about singing. How useful is it for learning singing? For teaching?
- How can vocal pedagogy filter new results into teaching and learning strategies? Which student will react positively to the software, when is it not effective? How can we translate the results in different styles?
- How can we measure the sound qualities of different styles?

## 3. Should an organisation like EVTA provide guidelines or normative data about research and teaching?

- It can publicize information and developing practical implications into methodology
- An essential aspect is communication via our pedagogical journals. They have an obligation to provide articles in understandable language and offer reliable translation into teaching practise when underlined by peer review.

## FORUM 2: MEDICAL ISSUES

### 1. Teachers' awareness of health issues that affect vocal performance and teachers

- Effects of drugs and medication on the voice, issues of addiction or drug intolerance
- Performance enhancement/ parallels to sport medicine & training methods / Better physical training: constitution, posture, deal w/ stress
- Diseases, symptoms and health problems that affect singing:
  - allergies, reflux, overuse and vocal fatigue, surgery, Injury, gynecological issues such as contraception and hormone therapy, job-related, posture, orthodontics, thyroid, hearing difficulties and tinnitus,
- Faulty techniques leading to voice problems, overuse,

### 2. Finding appropriate care

- **Easier access and better coordination at ENT/phoniatric practices:**
  - Singers wish for a more holistic approach to treatment
  - Some phoniaters offer „singing days“ in their practice
  - Diagnostic and therapy teams or voice centres for performers & students are important
  - better information finding appropriate specialists for singers
  - better, more accurate diagnostic tools
- **dealing with the whole person: psychological issues**
  - stress and performance anxiety, weight issues
  - familial and developmental problems – adolescent attention span
  - psychological and therapeutic aspects of singing
- **the necessity of co-ordinating therapy**
  - singing teacher should go to the doctor with the student – the easiest way to circumvent the doctor's oath
  - communicate and initiate teamwork for example between speech therapist, doctor, singing teacher
  - Does digitalisation of information, the Internet and speed of access help or hinder patient /doctor/ therapist relationship?
  - What knowledge does sports medicine have that would be useful for us?

### 3. What role should alternative and holistic medicine play in the ENT practices? Are there guidelines for appropriate use of various kinds of manual therapy, nutritional systems, speech therapy methods?

### 4. The need for good training in pedagogy courses at university level

- Basic physiology and function is more important than anatomy.
- *Can better understanding of basic physiological functioning of the body help voice teachers teach better and spot vocal problems earlier?*

## FORUM 3: PEDAGOGY, METHODOLOGY AND RESEARCH

### 1. Stylistic questions

- Voice use in many cultures contain techniques that are the root of contemporary techniques (twang, nasal, breathy voice) used in various styles of music such as jazz, rock, hip-hop, slam, and contemporary classical music. We should look more closely at these original techniques. Do singers in indigenous cultures really find expressive voice use that is damaging to their voices per se??!
- Singing with and without amplification – CCM singers teach and acoustically, but do things differently when later amplified. Teachers need a possibility to use effective spectrograms for the amplified voice.
- Verifying the metaphors we use in teaching.
  - What does the concept of “placement” really mean?
  - What does “singing the mask” mean, etc.
  - How does this play into the emotional aspects of singing?
  - Is this a measurable phenomenon, a focussing of the sound energy? or is it psychological? E.g. Lilli Lehmann’s image of the head sensations of the coloratura soprano, Mattei Belli’s definition of 12 zones of “resonance” in the head, etc.
- How can we teach the separation of phonation and articulation?
- How do we teach belting?

### 2. Methodology and Teaching materials

- **Teaching older singers** who take up singing either in lessons or in choirs for pleasure, social and health benefits present an increasing challenge. Definitions are often negative when we need to think of discovering potential and optimizing the vocal resources.
  - We need knowledge of ageing processes and typical diseases such as arthritis, Parkinson’s disease, changes in metabolism, breath capacity and muscular strength and
  - materials for assisting ageing singers.
- The **maturing professional singer** often faces questions involving processes such as changing Fach, menopause, maintaining vocal stamina, etc. Many leave the stage, others often consult a laryngologist instead of a singing teacher. We need systematic research in this area. Does this reveal a weakness in our knowledge and teaching strategies? What pedagogical strategies do teachers have to coach them through these stages of their careers? What about co-operating with the laryngologist in these cases?
- For **children** computers are a normal part of life. Singing teachers need
  - a methodology for using visual feedback or analysis software effectively with children
  - effectively teaching different age groups
  - software that is appropriate for use with children
  - knowledge on its limits.
- Dealing with group lessons is an issue in many countries. How can we do this effectively? Can software help us?
- **Anatomy:** Do medical schools have 3-D and interactive DVDs on anatomy that could be useful to us in working on body imaging? Present information as cartoons – quick, clear in cartoons
- **Vocal identity**
  - Finding a students’ own individual voice when they wish to imitate a favourite singer
  - What influence does the speaking voice and the mother tongue have on the singing voice?
  - The inter-relation between singing, sound production and imagination. The idea you have of your own sound very much influences your production. What role should demonstration take?
  - Languages and singing - making singing in foreign languages sound authentic
    - What are the acoustical characteristics of various languages?
    - What are the characteristic melodies, the harmonic structure of different languages? Develop programmes which recognize language characteristics.
  - How can we encourage the development of the singers’ formant? Do we need more tutorials in reading the spectrograms.

#### **4. FURTHER SPECIFIC QUESTIONS THAT WERE ASKED**

- The interdependency of vocal fold vibration and vowel production
- The positions and activity of the soft palate and the larynx – yawning, singing, at rest, speaking. Does the soft palate really move or is it just the uvula?
- The connection between lip protrusion and laryngeal tension?
- The connection(s) between lip and facial musculature and soft palate function?
- Assessing the student's physiological make-up in order to teach the student, not the method!
- Proper training for improving vocal fold closure and using the EGG
- Jaw opening and register changes
- Laryngeal tilt – what really happens?
- Mot data seems to be about post-phonatory processes. What is happening below the vocal folds. What about thyroid tilting?
- Mutation. Is it possible to recognize and predict how the adolescent voice change will happen – will it be brief or take more time for the adult voice to stabilize? What about female mutation?
- Breathing mechanism and the effects of different techniques on voice production.
- Define the acoustical, and muscular parameters and differences in various vocal techniques in the many styles of CCM voice, in Sprechgesang, etc.
- Define the relationship between speech and singing.

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*Sarah Algoet, Sue Anderson, Sebastian Bielicke, Bruce Boreham, Anne Constantin, Rowena Cowley, Ritva Eerola, Ivor Flint, Edita Garčević Koželj, Lieve Janssen, Anna Jeremus, Nina Kompare Volasko, Sylvain Lamesch, Jirina Markova Krystlikova, Katrin Müller-Höcker, Claudia Phillips, Bojan Pogrmilović, Aija Puurtinen, Georges Regner, Laurence Saltiel, Françoise Semellaz, Carolien van Workum, Sebastian Vittucci*

*Research, medicine and voice science specialists: David Howard, Dirk Mürbe, Johan Sundberg and Ingo Titze*

*Discussion leaders and editing: Norma Enns, Michael Büttner, Scott Swope*