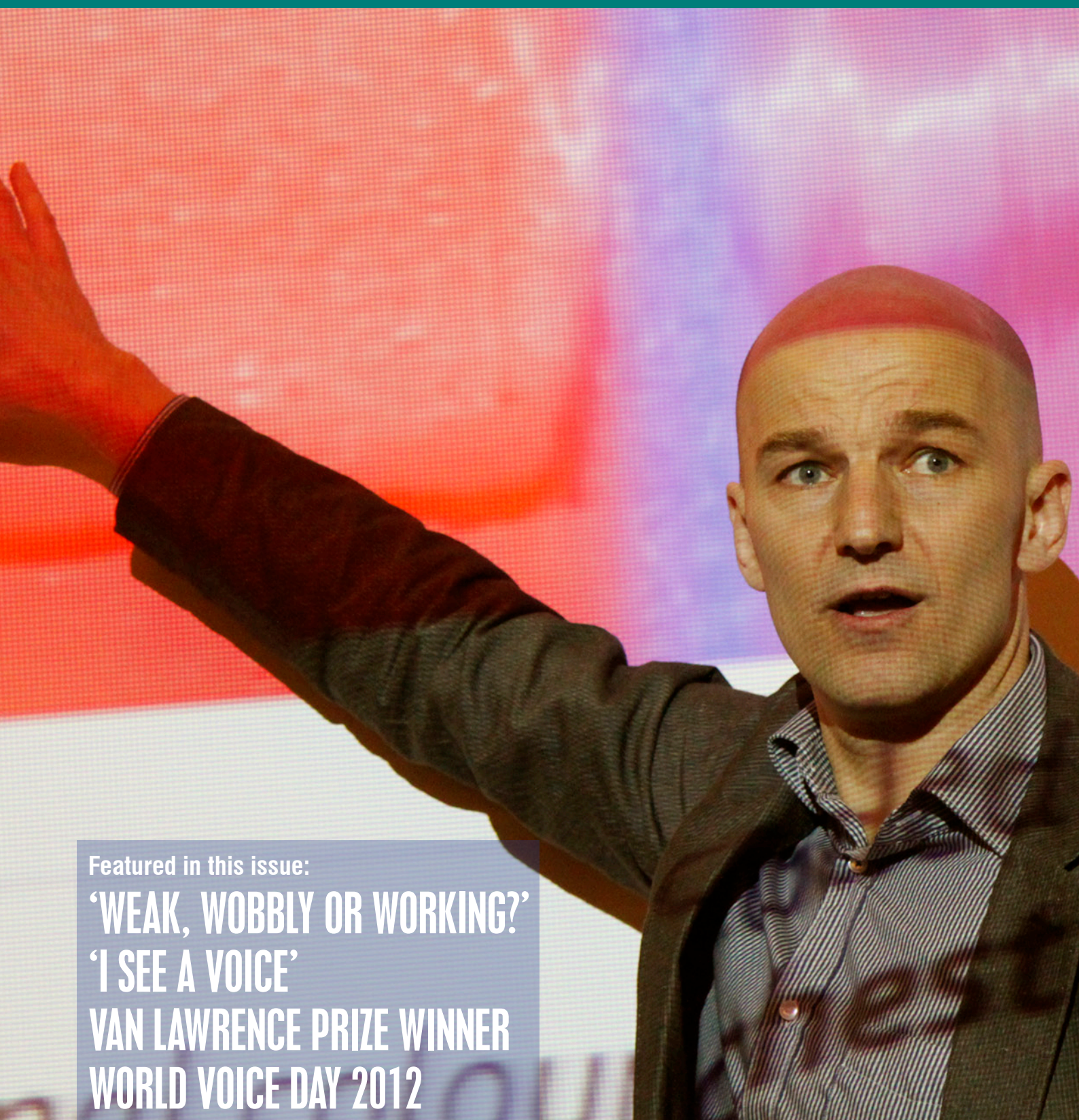


THE BRITISH VOICE ASSOCIATION

COMMUNICATING VOICE

 BVA

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Featured in this issue:

‘WEAK, WOBBLY OR WORKING?’

‘I SEE A VOICE’

VAN LAWRENCE PRIZE WINNER

WORLD VOICE DAY 2012

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WEAK, WOBBLY OR WORKING?

The multi-disciplinary management of the ageing voice

BVA Study Day: Sunday 25th March 2012
The Royal Northern College of Music, Manchester

Report by Carol Glaister

SLT (Voice and Head and Neck Cancer)

Royal Wolverhampton Hospitals NHS Trust

Having experienced BVA study days in the past, I expected to be inspired, educated and entertained; this study day did not disappoint. As usual, there was an eclectic range of speakers with a wealth of experience in an appropriate venue, The Royal Northern College of Music.

The day kicked off with an excellent, fact-filled presentation by Phil Jones, Consultant ENT Surgeon, informing us that we all had an 'inner fish', our larynx having evolved from gill arches. He comprehensively described the anatomy and physiology of the vocal mechanism and explored how many of its parts: the activator (respiratory system), generator (larynx) and controller (nervous system) could be affected by the ageing process. The resonators (pharynx and oral cavity) perhaps remaining unaffected.

He explained how the singer's formant (3Hz) derived from the surface area enclosed by the aryepiglottic folds. The vocal tract elongates with age. This downward movement, along with muscle wastage, loss of collagen and elastin, ossification of cartilages and reduction of lubrication (as less mucus is produced), results in a weaker, breathier, thinner, reedier voice as the vocal folds no longer close adequately. This is known as 'bowing of the vocal folds'. Women's voices age better than men: atrophy/muscle wastage occurring in 26% compared to 67%.

Less promisingly, the ageing process is believed to commence in our 40s, by the age of 55 the fundamental frequency/average



Jane Shaw

EDITORIAL

The Spring months have seen 2 exceptional BVA Study Days taking place in Manchester and London and I make no apology for including several reports from each to cover the many topics and viewpoints expressed. In particular, "I See A Voice" caused several members to tell me how they found the complexities of the subject challenging and daunting, so I asked the help of 2 singing teachers, an accompanist, a music student and, finally, Adrian Fourcin to share their understanding of the day with us.

The difficulties of an ageing population suffering dementia, Alzheimer's and related problems is mentioned constantly in the media and I'm sure many BVA members work or give their time to help in this sector. The reports from "Weak, Wobbly

or Working?" focus on the benefit singing and drama can give to the elderly. Liz McNaughton shares her methods and Nicky Rafferty shares her experience of Storytelling.

Following the reports in the Spring Newsletter on the 6th Voice Clinics Forum and the difficulties facing Voice Clinics throughout the UK, Graham Smelt reflects on a typical day in Calderdale and Huddersfield NHS Trust and gives a positive view of the future.

Finally Sara Harris gives a round up of events celebrating World Voice Day and, in keeping with this the theme of the summer, we are treated to a flavour of the amazing "Vocalympics" WVD event organised by President Elect, Kim Chandler.

Lynne Wayman
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pitch of a male's voice is 110Hz at 55 rising to 130Hz by 70, with women's voices changing conversely to lower pitches, a drop of 60Hz. This can lead to gender confusion over the telephone as older men are mistaken for women and vice versa.

However, Phil cautioned us against assuming that aging processes alone were responsible for all vocal changes in the older population, citing that in 90% of those presenting with dysphonia, other factors are more important.

Freelance Voice Specialist, Liz McNaughton's proceeding session 'Use it or Lose it: celebrating older professional singers' illustrated the potential beauty of the older singing voice. With audio and video-footage of pop, folk, jazz and classical singers, Liz challenged the notion that the older voice does not merit air-time. Whilst acknowledging that some of the singers' voices were not 'perfect', she demonstrated how their maturity added a different dimension. Jazz singer, Alberta Hunter, at 87 was still able to seduce with 'My Handy Man'. At 68, Plácido Domingo's performance of 'Padre Rigoletto' was passionate, never feeble and croaky. Although Maya Angelou's voice, at 78, was audibly deeper, its power in conveying wit and wisdom was even greater than in her 'heyday'. Thus, Liz McNaughton encouraged us to all sing as long as possible as 'voice is the muscle of the soul'.

Provocatively titled 'The Good, The Bad and The Elderly', Jane Shaw's talk addressed the challenges and highlights of treating the older voice in her role as Specialist Speech and Language Therapist. On the positive side, the more mature client may be more engaged and committed to voice therapy in retirement and have successful outcomes as corroborated by Saunderson, Roy et al's (2010) research. Jane reminded us that, apart from vocal nodules, the older person's voice could be affected by acid reflux, muscle tension, cysts and polyps, but additionally could experience atrophy and bowing. Hearing impairment, cognitive decline, bereavement and social isolation were challenges for this group.

Jane Shaw defined three compensatory behaviours often seen in the older person. Where the gap between the vocal folds is large, the false vocal folds are often used to compensate; whereas with smaller gaps, vocal folds tend to be lengthened resulting in thinner, higher-pitched voices. Lastly, with vocal fold bowing, excessive inter-arytenoid pressure (pushing at the back of the vocal folds) occurs resulting in an hour glass shape. She emphasised the benefit of the Accent Method to improve airflow and twang to enable volume over background noise. Jane also highlighted the benefit of nasendoscopy to ensure that effective therapy techniques are employed, as with large gaps glide work is indicated, while lower pitched resonance and stamina work more successful with smaller gaps or lengthened cords. She also emphasised the benefit of working closely with ENT colleagues to jointly consider vocal fold medialisation surgery should therapy prove unsuccessful.

Mark Watson, Consultant ENT Surgeon, then enlightened us in the range of surgical options available with 'Surgery for the Ageing Voice'. He stressed the fact that this is a growing population. Whilst in the past, reassurance that there was 'no cancer and this was just the ageing process' might have been the only input required, today's senior citizen is more likely to request input: A third of those above 65 have voice problems and 18% seek treatment (Gartner-Schmidt, 2011).

Some rudimentary research has been conducted in neuromuscular stimulation and the use of growth factor, but



Sue Anderson

injection medialisation is currently the most common surgical treatment; whereby thinning vocal folds are bulked up with a filler. Teflon is no longer used and Bioplastique's potential for tissue reaction has led most to opt for Hydroxyapatite (Radiesse Voice) as a treatment of choice. However, Mark recommends the use of short-acting materials, e.g. Hyaluronic acid, to 'test-drive' the new voice so that people can gauge what a more permanent solution could offer. He counselled us that whilst treatment may improve glottic closure, it does not give you a younger larynx!

'Use it or Lose it: therapeutic voice work for older people with neurological impairment', Liz McNaughton's second presentation or rather interactive workshop, gave us a flavour of the fantastic service she provides to those with acquired conditions (e.g. stroke, Alzheimer's and Parkinson's) and their carers.

She runs workshops in community settings, including care homes and finds that a repertoire of popular songs – Edelweiss, 'Consider Yourself' and Beatles hits – encouraging participants to volunteer contributions. Songs can be used for general socialisation or reminiscence work or with a particular vocal aim (e.g. improving use of rhythm with those with Parkinson's). She had us singing in 'call and response' routines and we all felt rejuvenated from the adventure.

The day then concluded with another inspirational singing teacher, Sue Anderson, asking whether with singing it was 'Never Too Late?' She acknowledged perhaps to embark on a classical professional singing career at 80 would be challenging, but that otherwise we should just go for it. She recounted how she had successfully taught older singers and that they fell into three broad categories – those who sang at school but not since, those that have always but now experience difficulties



Mark Watson

and thirdly, those where music and singing have always been important to them and they still enjoy it.

She elucidated this with fascinating case examples and it was clear that she paid particular attention to their individual needs, emphasising the need to keep breath active and the vocal tract open with a 'secret smile' with simple songs, e.g. 'This old man, he played..' to improve tonal awareness. Sue's MSC research on 'congenital amusia' ('tone deafness') showed that in just 7 weeks 1 in 5 showed a great deal of improvement and 2 in 5 significant improvement, so there are no excuses and Sue had us all 'whooping' to close the day.

Dr Jenevora Williams writes from the singing teacher's perspective

Nearly all singing teachers will be working with some singers who are over the age of 60. These voices will not be the same as they were thirty years ago. They will not sound the same and they will not feel the same to the singer. The reasons why they change and the understanding and management of these changes was the focus of the day.

The first speaker was Phil Jones, a consultant otolaryngologist. He neatly summarised the evolution and function of the larynx. He then described some of the effects of ageing on the larynx itself. These could include weakness as the muscles atrophy, changes in vocal timbre due to alterations in the lamina propria and stiffness in the joints within the larynx. One of the most common results of muscle weakness is vocal fold bowing. This will prevent complete vocal fold closure and the sound will

be weaker and more breathy. The natural response to this is to increase effort within the larynx and the vocal tract, resulting in higher levels of tension in the entire system.

Another important element to consider is the neurological changes within the brain. As the control of the nerves decreases, there is an increase in muscle tremolo. This adds to the vocal instability with higher levels of jitter and shimmer.

Phil then outlined the difference between common problems in male and female voices. Men will experience more atrophy within the vocal folds, the voice will sound thinner and more reedy and the pitch will go up. Women, however, tend to develop oedema in Reinke's space: this lowers the speaking pitch. Both men and women will tend towards bowing of the vocal folds, resulting in breathiness and poor vocal projection.

It is worth noting that only 10% of dysphonia in the elderly is as a direct result of the ageing process. Most problems are the by-product of another disorder such as Parkinson's disease or rheumatoid arthritis. Some vocal problems are a side effect of medications taken for unrelated disorders.

There is some good news amongst the doom and gloom of getting older. Although it is not possible to reverse the ageing process, it is possible to delay it to some extent. If the voice is exercised regularly, the muscles will be less likely to atrophy. This exercise comes under two categories. The first is strength, which comes with resistance training, i.e. loudness rather than prolonged voicing. The second is stamina, which comes with regular use as well as general overall levels of physical fitness. The general advice for all voice users is to maintain an overall level of physical fitness and to use the voice regularly.

The second presentation of the morning was a celebration of the older singer, given by Liz McNaughton. She played an amazing collection of recordings of singers, many of whom were in their 80s or 90s. Their voices were noticeably older, but this did not detract at all from the power of the performances. The skilled older singer will be able to pace their phrase lengths, and can still provide real strength in the sound. The ability to communicate can often become more powerful in the experienced performer.

Isobel Baillie at the age of 80 had a clear, ringing voice. Shirley Bassey and Tony Bennett are still going strong, they are true vocal athletes. Elaine Stritch, recorded at the Sondheim 75th birthday concert, at the age of 77 herself, was powerful in her stillness and focus. Her economy of movement drew the audience in. She was a prime example of artistry at its most accomplished. Alberta Hunter at the age of 87 was amusing and surprisingly sexy. Magda Olivera, Sara Scuderi and Salvatore Locapo, all in their 80s, made recordings of operatic arias full of passion and commitment. The skill of the older singer is to use what they have got, and not to expose what they can no longer do.

After lunch we had presentations from Jane Shaw (SLT) and Mark Watson (Consultant Otolaryngologist). It was encouraging to see how many options are available for ageing voices with associated problems. We are all aware of our ageing population; treatments such as these will become more necessary and commonplace.

Jane gave us an enthusiastic but realistic guide to her own approach to therapy for her older patients. We know that voice therapy can be very helpful with positive outcomes for the individual. The older person may have a combination of other issues all contributing to their voice problem such as poor

respiratory function, social isolation, recent bereavement, other medical conditions and their medications, as well as memory problems and a slower learning pace. Despite this, if the patient is motivated, there can be a measureable gain. Jane took us through some of her methods, types of treatment and vocal exercises.

Mark Watson outlined the various surgical treatments he would offer. This can often be an injection into the vocal fold in order to increase the bulk and help the vocal folds to adduct more successfully. He explained the various options available, both of injection materials and also the methods possible. Many patients will opt for a temporary solution (works for 6 to 12 months). This can serve as a 'trial run' for a more long-term solution. It is important to remember that although these treatments are all helpful, they cannot give the patient a younger larynx!

Liz McNaughton's second presentation of the day was an inspiring interactive workshop introducing us all to her programme of working with older singers, mainly in residential homes. This is such a positive and rewarding activity for both the participants and the leader. We know that singing is not only good for the voice, but that there are numerous physical and psychological benefits to the individual. Liz had us all singing along, exercising our brains as well as our voices with songs and vocal games. After hearing her testimony, it is hard to understand how anyone could refuse funding to such a simple and yet hugely beneficial activity.

We were privileged to be able to use the Royal Northern College of Music in Manchester as our venue. This was not only a well equipped and comfortable environment, it also allowed easier access for the BVA members who live further from London. 'Weak, Wobbly or Working?' was an inspiring and uplifting day. How wonderful to feel so positive about dealing with the older voice user!

Liz McNaughton kindly shares her notes...

Singing and speaking voice workshops for those with Alzheimer's and other dementias, Parkinson's, stroke and their carers, bring benefits through muscular, aerobic and cardio-vascular exercise and thereby improve overall communication and well-being.

In the first place, let us look at the figures for people with neurological impairment in the UK. According to the Neurological Alliance, there are approximately 10 million of us living with some kind of neurological condition. If we then single out specific conditions, the numbers currently are:

Alzheimer's and other dementias: 750,000

(*Alzheimer's Society*)

Parkinson's disease: 127,000

(*Parkinson's Disease Society*)

Stroke: 300,000

(*Neurological Alliance, 2003*)

Carers: 5.7 million

(*The Princess Royal Trust for Carers, 2004*)

Approximately 850,000 of these care for someone with a neurological condition.

(*Neurological Alliance, 2003*)

Although not everyone in these numbers is elderly, a great many are probably over 75 and the numbers are expected to increase dramatically in the next few years. The problems are cognitive, physical, emotional and social. There are many similarities and overlaps in the symptoms of each group, especially in terms of voice use and communication skills, and there are many health problems among those who care for them as well.



Liz McNaughton and delegates

I became involved in this area about ten years ago when I was asked to lead some voice workshops for carers and then for the Singing for the Brain project started by the West Berkshire branch of the Alzheimer's Society in 2004. After leading these workshops over a period of nearly 4 years, I was getting requests to work with Parkinson's disease and stroke as well and so I began *Voicework for Wellbeing*.

The workshops are usually held in church halls, community centres, residential and nursing care homes and day centres. The participants are the cared-for along with their professional or family carers. I also work on a one-to-one basis, particularly with those who have Parkinson's disease both in their homes and in hospital. The funding for these sessions comes from local authorities, charities and private donation.

For the groups, I work in a circle or semi-circle and a *cappella* which means I can move around engaging with individual members of the group, stop and start freely, change the pitch and go over mistakes although it is important to stress the fun element and having a go whatever the outcome.

We start with a warm-up doing physical exercises as much as possible in terms of freeing hands, feet, shoulders, head and neck, jaw, tongue, lips and soft palate and using the abdominal muscles for breathing. Rhymes and tongue twisters are really good to get things going (for example '*Many mini-minors merrily milling round Manchester*' in honour of our host city for the study day!) and always singing a '*hello*' song so that everyone at the session is greeted and acknowledged – even if they are asleep!

Song repertoire is mostly popular music and folk songs using a variety of different ways to sing the songs: call and response ('*Hello*' song), echo (*Consider yourself*), ostinato (*What shall we do with a drunken sailor?*), action (*My hat*). If there are helpers who can hold the tune then we can do rounds and partner songs. Without help these are impossible – I know because I've tried!

I like to use themes such as the seasons, girls' and boys' names, flowers and obviously the celebrations of Christmas, Easter and Valentine's Day. Special requests are important as is matching the songs to the group. Old music hall and World War songs are still probably the most popular along with *Edelweiss* which I have sung more times than I can say! It makes a very good warm down song when sung to a quiet 'oo'.

Repetition is important as a framework and so one or two songs are carried over from week to week. Unfortunately, some groups only manage a session once in a while but I keep records of the songs we have done, so that I can jog their memories at the next visit.

A minimum of three sessions seems to be good for people to settle down and establish the benefits. It is also very important to remember it is not a choir – there's no end goal: every session is an end in itself for each individual. If they keep coming, that's a bonus!

I have tried using percussion instruments but now no longer believe this is useful as people in my particular groups have enough to think about just using their voices and bodies without clouding the issue by banging, shaking and waving other bits and bobs. There are other groups they can join if they wish to do this.

I do not use classical music either as this repertoire would not work for most of my groups. I have, however, worked on an individual basis to the great contentment of one 90 year

old client with Parkinson's, who had been a trained singer. He was 'nil by mouth' for months with swallowing difficulties but in spite of this, his twice weekly sessions perked him up and gave him great pleasure singing *Vacchai*, *arie antiche*, *Handel* and reciting poems. He spoke much more clearly after the sessions, according to his family, and it was a real privilege to help him enjoy a better quality of life to the end of his days.

I use poetry a great deal especially in the one-to-one context as I have found that the rhythmic stress and alliteration (e.g. G K Chesterton's *The Rolling English Road* and John Masefield's *Sea Fever*) is particularly helpful for people with Parkinson's disease and keeps the muscular movement going when singing is too difficult. Speech and language therapists who have asked for a session for PD groups say that they immediately notice the benefits in their patients through the rhythm as well as the social aspect of the group. It is also important to mention the use of 'twang' as a great benefit in improving vocal clarity.

According to both professional and family carers, there are clear health benefits from the workshops. Sometimes, people seem asleep but will wake up to thank me at the end of a session. Sometimes, people speak for the first time in months and come alive remembering words through the melody. There may be good carry over with an improved memory for those with dementia and better speech initiation and voice quality for those with Parkinson's. One private client said his singing sessions together with the Lee Silverman course he had attended really made a big difference to the strength of his voice, which culminated in him being able to give a confident speech at his daughter's wedding.

The only negative effect may be that one or two participants in some groups, especially those with dementia, may be over-stimulated and become restless and aggressive afterwards. As a facilitator, you certainly have to be ready for all sorts of interruptions and unexpected interventions but it keeps you on your toes!

As far as the future of this kind of work is concerned, some health practitioners feel it should be available on the NHS. It certainly fills a gap between speech therapy and music therapy and provides an opportunity to reach considerable numbers of people at one time. Unfortunately, in the present funding climate, a great deal of financial support has been withdrawn and one of the biggest stumbling blocks is the lack of evidence-based research to validate the benefits.

There is little quantitative data available due to the difficulties of collecting the necessary information from these vulnerable groups without being invasive and destroying the benefits gained. However, recent university studies and music therapy support the positive aspects of using singing and voicework, especially in a palliative context.

In an ideal world, there would be training for carers who could have a small repertoire of songs to use anytime, which could also be linked to reminiscence and craft work within the care setting. One of the problems with getting help in the groups is that lots of the professional carers are very young and / or foreign and so don't know the songs familiar to the older population. Others say they can't sing!

In conclusion, it is clear that there is a real need to address the increasing numbers of frail and elderly people with neurological impairment in order to maintain quality of life in worthwhile and life-enriching activities. These vocal sessions provide a cost-effective way of meeting cognitive, physical, emotional

and social needs and add quality of life for carers as well as their cared-for doing something they can enjoy together. The group focus means that the work can reach more people in the community, potentially through a trained facilitator, who does not need to be a music therapist or a speech and language therapist. There are real implications for the health profession in terms of improving public health through the singing/speaking voice teacher or choral director as a disseminator of vocal health information and its implementation within the community. Let's see if we can do something about it!

Actress Nicky Rafferty shares her experiences...

Many years ago, a fellow actress and I managed to eke out a living touring residential homes for the elderly, performing songs and sketches from the Music Hall. I drew on this experience when a friend contacted me last year to ask if I'd consider storytelling in a nursing home, where the residents were all suffering from dementia. I've been a storyteller for 20 years and I'm largely employed to entertain or educate, so I wasn't sure how storytelling would work in this context, with people that probably wouldn't be able to follow my stories, but when I visited the home to talk about what I do, the manager was keen for me to give it a go.

I had to begin by turning off the television, but no one objected, and those residents that did notice and acknowledge me were warm and welcoming. I began by telling a couple of lively stories and felt that most of the residents were getting something out of it, I even felt that a couple of them might be following as they laughed in all the right places but, on the whole, my feeling was that they were getting pleasure from my

animated style without fully understanding what I was doing. I then did some origami with them with surprising success. I often make paper models as I'm telling a story and I asked if they'd like to have a go themselves, 90% said yes. A small number could follow instructions, but mostly they needed a lot of support. I then tried a couple of famous monologues and their rhythm seemed to please but they didn't seem to recognize even very popular ones like "Albert and the Lion". In my old Music Hall days, I remember our audiences often knew every word and delighted in joining in.

And then I sang a song. I'd told sea stories and we'd made paper boats, so I decided to round off with "All the nice girls love a sailor" and the room lit up. Some sang with small voices, others with confidence and gusto, some tapped their feet and moved their bodies to the rhythm and one lady got out of her chair and did a little jig.

As a storyteller, I am obviously sensitive to the level of engagement of my listeners and I'm a little uncomfortable when I'm telling to an audience that isn't hanging on my every word, for whatever reason. I wasn't sure the care home thing was for me, but the singing changed everything. I now use songs within my stories and have found that some residents join in with songs that I've made up as well those favourites that are familiar to them such as music hall numbers, war songs and hymns. This week, mid-story, I brought in "Daisy, Daisy" when one character was proposing to another. Immediately, even those that had been far away in their minds, began to sing and move their bodies to the music. One lady, otherwise engaged, opened the toilet door and joined in at the top of her voice and others sang from their bedrooms. The staff joined in, the visitors joined in and it felt as though the whole place was full of joy and life, and I absolutely feel it's worthwhile.



The Royal Northern College of Music

I SEE A VOICE

Practical acoustics for speech and singing

BVA Research Day: Sunday 20th May 2012
Baden Powell House Conference Centre, London

Report by Heather Keens

On Sunday 20th May, I attended the British Voice Associations "Van Lawrence Award" and training day 'I See a Voice': practical acoustics for speech and singing, held at the Baden-Powell House Conference Centre in Queen's Gate, London. The day saw approximately fifty-five members and some non-members in attendance. The programme began with presentations by the four Van Lawrence Award finalists. These were; Christian T. Herbst (Analysing the female "middle register" with EGG wavegrams), Ian MacDonald (An investigation of abdominal muscle recruitment for sustained phonation in 25 healthy singers), Constantinos Mamais (Quality of voice improves after thyroid surgery according to the Voice Symptom Scale) and Seamus Phillips (Does attendance at the voice clinic change diagnosis? An assessment of the added value of the voice clinic). The presentations were all of a high standard, and from my point of view, clear, well organized, engaging and insightful.

Time was set aside for questions from the Van Lawrence Award judges, who are leading professionals in their fields: Yakubu Karagama (Consultant Laryngologist); Gillyanne Kayes (Singing Teacher / Researcher) and Jane Shaw (Speech and Language Therapist). Their questions produced further considerations for research and debate. The finalists answered ably.

From a singer / voice trainer perspective, I found the presentations on 'abdominal muscle recruitment' and 'the female middle register' both thought provoking and informative and would have liked more information on certain key descriptors such as 'turbo-function' (MacDonald). The 'thyroid surgery' and 'voice clinic added value assessment' presentations also shed light on current issues regarding voice clinics and voice surgery.

Prior to the announcement of the Van Lawrence Award winner, one of the four keynote speakers, Christian T. Herbst, who was also a current Van Lawrence finalist, gave a talk titled 'Introduction to voice acoustics and some recent research'. He began by playing a split screen You Tube video "Chords" which featured the vocal folds, via nasendoscopy, of four singers singing in harmony. The creation of artist Sara Lundberg, this is worth a net search if you have not viewed it.

There were fascinating insights and revisions with 1st, 2nd and 3rd formant activity through the movement of the articulators, register transitions and reminders of the importance of correct laryngeal / body posture.

Christian's presentation was followed by the announcement of the award winner. Jenevora Williams, mistress of ceremonies for the day and past Van Lawrence winner, invited Tom Harris to the stage to present the award. I am sure most attendees



Tom Harris and Van Lawrence winner Christian Herbst

were in agreement when Tom spoke of the high calibre of entries and without, in his words, doing a 'Simon Cowell moment' awarded the Van Lawrence prize to Cristian.T.Herbst. Lunch was then served.

Post lunch, we had the two further keynote speakers, the first of which was David Howard, Professor of Electronic Engineering at York University. David's research area is analysis and synthesis of voice. He also sings with and conducts the Vale of York Singers. He spoke on the way the human ear processes incoming voice signals and how elements of the input are not heard by our ears. As usual, his talk was fascinating. David presents with such energy, enthusiasm and intelligence, that it is always an enlightening and educational experience to hear him talk.

David discussed the issue of human perception not always being obvious, outlining this by playing a face articulating a consonant. We were asked to view the video and then to listen to it with closed eyes. We all agreed that the sound changed without the visual content. We were presented with other snippets of information regarding the use of technology, such as the MP3 player and the fact that it only provides 10% of recorded data from an original CD input. Legal UK noise levels were discussed with the realization that on a daily basis, our ears are exposed to far greater noise levels than is deemed healthy.

Further insights included the 'knickers waving on a washing line' analogy to describe cochlea and frequency hearing. We explored the 'intuition' of the ear / brain relationship with regard to consonance and dissonance of sounds, and how important it is to tune voiced consonants as well as vowels. We listened to repetitive digital tone pitches at differing frequencies, testing our hearing with regard to the loss of the higher frequencies through ageing, the onset of presbycusis



Stephen Robertson

beginning around the age of 22yrs. David finished his insightful talk with discussion on 'voice impressions' and the picking of caricatures in sound.

Our final keynote speaker for the day was Stephen Robertson, Head of Vocal Performance at the Royal Conservatoire of Scotland. His presentation included a practical demonstration of singing analysis using the 'Voce vista' programme designed by Donald Miller. To do this, he engendered the help of two delightful volunteer singers, Graham Neal and Iris Korfker.

Stephen outlined how the use of the technology was becoming a cheaper, more accessible learning tool in the pedagogical studio and stated with admirable humility, how it helped him to improve his teaching, by providing more clarity for both himself and the student singer. He further discussed the use and signal feedback of the EGG equipment, with regard to upper passagio work with classical tenors. There was a wonderful exercise in estimating formant frequencies and stabilizing vowel positions through the use of 'vocal fry/creak', a low energy ripple of vocal fold movement.

Demonstrations of formant tuning were made with Graham's tenor voice and Iris's soprano voice. Both inputted beautiful sounds into 'Voce Vista' through the guidance of Stephen, with differing outcomes regarding the suitability of 1st and 2nd formant tuning options. Time was given to participant questions on topics such as singer's formant, singer's vowel perception and useful exercises. Stephen closed his session by reminding us how individual singers' voices are, "how we share formant patterns but that they differ in shift, with each voice". I personally found the day exceeded all expectations and would love a follow up day on 'practical acoustics for speech and singing'. Thank you BVA.

Jennie Selman gives a singing teacher's appreciation

This BVA conference was one of the best I have attended. The programming of the day was excellent and the sequence of the talks was very well considered.

I have owned the "Sing and See" software for some while, but have needed to be persuaded that it would be useful in my teaching, particularly since I do not use computer technology with any great confidence.

It was very reassuring to see the spectrographic programmes being employed so appropriately to the subject matter of each talk. If I needed to be convinced that this is a valuable singing teacher's tool, well now I am! In particular, I know it will give me visual confirmation of what my ears heard in my student's voice. Having seen such a wonderful demonstration of spectrogram use I feel better acquainted now with its potential.

Christian Herbst's excellent talk helped me to understand more clearly the acoustic features of the singer's formants, which is so evident when looking at a spectrographic reading of the sound. Through his very detailed exposition of these features we were able to appreciate the need to understand the geography of the vocal tract and the manner in which its components influence the set up of the formants.

If I did need further persuasion, then Stephen Robertson's practical demonstration with singers convinced me that I could do it. It also made me aware that this, in itself, could not answer all the problems we face in helping our students. The teacher still needs to encourage and inspire and above all give confidence. He or she must never lose the ability to detect problems and flaws in a voice with their ears.



Constantinos Mamais

This conveniently leads me on to David Howard's talk on hearing. I had never given any thought to the idea that each person might hear differently, other than that we might have different levels of auditory loss as we aged. I now realise it is not enough for me to say "If you can't hear it, you can't sing it." I also need to understand how my students are hearing for themselves. As a teacher, I have experienced frustration and known my student's despair when, despite the singing process working well with a flexible vocal tract able to adjust for all sounds within the student's range, the pitching still fails. David's theory of hearing operating in either speech or music mode has given me some ideas for tackling this problem. His talk left me wanting to know more.

In fact, all the speakers left me wanting more and I think that confirms what an excellent day it was. So thank you to them all for such a stimulating and inspiring conference.

Accompanist Richard Black gives his view of the Day...

Computers are popping up everywhere, and it's easy to daydream about a computerised system that 'listens' to a voice and in a twinkling provides an analysis of what's wrong, be it a pathology or a minor detail of vocal production that comes between a singer and international fame. Computerised acoustic analysis is already used in fields such as aeronautics, for instance, where it can give early warning of impending engine failure.

The human voice of course has far too many variables for such quick analysis, but the speakers at 'I See A Voice' gave plenty of examples of where a microphone, a computer and some software can shed a very informative light on the workings of the voice. This became evident in the very first presentation of



Iris Kortker



Graham Neal

the day, which happened to be Christian Herbst's presentation as part of the Van Lawrence Award finals. All four of these presentations were interesting and well delivered, but Christian's was perhaps the most immediately relevant to those of us in the audience (a high proportion) who deal with singing in one way or another. He began by outlining the possibilities of electroglottography (EGG), which allows non-invasive, real-time, measurement of vocal fold closure. I'm pretty sure I wasn't the only person present who was previously unaware that such a thing was possible, much less affordable (which it is). The possibilities this offers in terms of useful instantaneous feedback to inexperienced singers would appear to be highly significant.

More advanced singers will, in general, already have vocal fold closure mastered, but the day's second session, an invited paper by the same Christian Herbst on voice acoustics, contained further invaluable insights into singing tone production. Christian's explanation of how harmonics of the fundamental sung note interact with the acoustics of the vocal tract, in turn affected by physical variables including tongue position, made abundantly clear why some pitch and vowel combinations 'ring' for a given singer and some just don't. He mentioned briefly the VoceVista software, which was shown in use later in the day by Stephen Robertson. Running on a basic PC, with the addition of a basic external microphone (and optionally an EGG sensor), this tool provides an on-screen display of the spectrum of a singer's voice in such a way as to facilitate optimum tuning of the vocal tract and vocal folds for most efficient tone production.

David Howard's session on how we hear was similarly fascinating. Some of what he spoke about seemed at first more of intellectual interest than practical use, but David gave examples of where, for instance, Bach used 'pitch paradoxes' to appear to extend the range of the organ's pedal-board from two-and-a-half octaves to nearly five. David also spoke in some

detail about noise-related hearing loss, a subject that should be familiar to all musicians.

Not every singer or singing teacher wants to know the full scientific background to what they do. All the same, anyone who has ever used a tape measure to size up a window for curtains has used scientific measuring apparatus, and study days like this are an ideal way to discover some possibilities in the field of singing. I found it a real eye-opener and hope it will be repeated so that more people can benefit from it.

Undergraduate composer David J Loxley-Blount shares his highlights from the day...

'I See A Voice' was my fifth one-day BVA conference, and the second occasion I saw Van Lawrence prize finalists present their papers. These outstanding days always leave lots to go away and think about, and today's offering was no exception as acoustics have always been something that has fascinated me.

The day started with four very interesting presentations displaying the BVA's wide inter-disciplinary ethos and membership by the Van Lawrence 2012 finalists. Prior to being announced as the winner, Christian Herbst returned to the platform, to explore voice acoustics and recent research. To pick out a few things from his talk does not do it justice, every minute was truly packed. However, the central idea was the vocal tract as an acoustic filter, and that the geometry will always define the acoustical formants (formants = vocal tract resonances). He went on to suggest that the maximum



Ian MacDonald

possible vowel changes per second is 6, but acknowledged that this is dealing with the subjective, e.g. when adding yellow paint to blue paint, when will it be no longer blue, but green? – it will be different for everyone! Continuing from this on to sub-



Coffee break: Stuart Barr and Jenevora Williams

topics that included, how do I spend my energy, and honesty of vowel use (with some entertaining video examples).

Words are not enough to describe David Howard's talk entitled 'Hearing Voices'. Having a wide musical education, many of the concepts that David brought up were familiar to me, but no one had put parts of the whole picture together quite like he did. To use a hypothetical analogy; it was a little like I knew what the right-ear-doctor and the left-ear-doctor had to say, but David's talk was like going back to paediatrics where an expert actually looked at the whole, rather than just the constituent parts.

It was enlightening to watch the demonstration on voice formants by Stephen Robertson, and two willing young singers, using technology that has extended available

analysis approaches. From the perspective of a composer, it was fascinating, but also drawing on my observations and experiences as a wind instrument player (saxophonist), I can see parallels and possibilities for uses beyond the singing world in exploration between voice formants and instrumental technique. Stephen's demonstration made total sense of many problems and issues that I have observed in many fellow students, friends and in myself as an amateur singer.

To sum up the day in a few sentences is impossible, but the various speakers through means of illumination, questioning, insight, demonstration and discussion together helped tie up some loose ends, but as inevitably happens they also created many more... I hope further exploration of some of these will continue at BVA conferences in the future!

Final comment from Adrian Fourcin...

The BVA "I see a Voice" meeting had the sub-title "practical acoustics for speech and singing" – not, one would have thought, crowd drawing themes for the many BVA members whose daily lives tend to be centred on voice production and perception. But they did turn out in some force and throughout the day there was no shortage of interest, discussion questions and self forming groups. The day's organisers knew, perhaps, that a new BVA was emerging, solidly based on its past achievements but now increasingly combining Science with Sensibility.

The first part of the morning gave us fascinating talks from four Van Lawrence presenters: two ENT surgeons and two with their roots in voice teaching. Seamus Phillips, an ENT but also an Engineering graduate and trained in NHS management, used

the results of two sets of quite long-term outcome measures to examine the relative clinical successes of particular past and present management processes with results having important implications for future planning. Constantinos Mamais, the second ENT surgeon (and the only one of the four presenters to work entirely by himself without the benefit of the support of a group) again used outcome measures to examine the influence in two centres of different thyroidectomy procedures on post-operative voice quality – and found results that both went against prior reports and that promise to be influential.

Of the two singing teachers, Ian MacDonald used ultrasound imaging to quantify the roles of two muscles in (semi-supine) "athletic" singing voice production with results that begin to clarify and that must provide an essential foundation for the next more realistic iterations. Christian Herbst, (also with singing teaching as a foundation, and the eventual prizewinner), described how he has advanced Voice Science with the development of his "Wavegram" technique for the synchronous



Seamus Phillips



David Howard

display of vocal fold contact with particular examples drawn from a study of female singing voice register transitions and a discussion of its possible use for interactive biofeedback.

Christian Herbst was also the first of two specially invited speakers, and his chosen topic of voice acoustics was enriched by his background as a singer and enlivened by his performing ability – no-one could have failed to benefit from his “dying fall” demonstration of the projection exigencies involved in maintaining an acoustic match between the vocal conduit and vocal source at the sung moment of death. David Howard was the second of the special invitees and his chosen topic broke new ground for the majority of BVA members by introducing auditory concepts and examples that gave new unsuspected life to the interactions between perception and production. David has the rare gift of melding quantitative science into an artistic performance.

Science and performance were the key concepts of the day's final presentation from Stephen Robertson. In his two masterclasses the real-time display of the energy-frequency spectrum of the singing voice appeared almost as an object of beauty as well as one of real voice timbre utility. The concepts of the singing voice formant, harmonics and timbre control became alive in his teaching sessions.

The whole day was itself a great success with each of the speakers giving different complementary insights into the multi-dimensional riches of the human voice... we owe a debt of sincere gratitude to the organisers.

HOW THE BREATH INSPIRES



THE PHYSIOLOGY OF
BREATHING WITH PRACTICAL
APPLICATIONS FOR BOTH
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Sun 23 September 2012

Baden Powell House
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Further information and application forms from
administrator@britishvoiceassociation.org.uk or
visit www.britishvoiceassociation.org.uk



Van Lawrence judges (left to right) Yakubu Karagama, Gillyanne Kayes and Jane Shaw

Reassurance, technical advice and picking up a cancer

By Graham Smelt

Consultant ENT Surgeon, Calderdale & Huddersfield NHS Foundation Trust

Yesterday's Voice Clinic was fairly typical; it was full of surprises. A professional folk singer, who was chronologically 60 years old but looked half her age, had suffered episodes of laryngitis causing several days aphonia and also had developed a weak mid-range of her tessitura. She was reassured the glottis appeared normal but was going to receive help from the singing teacher, Llyndall Trotman, to help her extend her "chest" voice.

A primary school teacher in her early 20's, who again had problems over the winter with colds and subsequent aphonia and weak voice with attacks lasting a week, was again reassured that the larynx appeared healthy on nasolaryngoscopy, but who could benefit from speech therapy to improve her technique during colds which invariably "went to her larynx".

A high flying executive who sang soprano with a well known choral society, had mild Reinke's oedema, took the opportunity of some remedial singing lessons to improve both her singing voice and also help her in her presentations and long meetings at work.

A 73 year old gentleman, who had suffered two episodes of increased hoarseness over the past six years and had had a coronary artery stent placed eight years previously. Although he had been seen twice in general ENT clinics, he was found on nasendoscopy to have a large part of the posterior third of the left vocal cord missing with hyperkeratosis at the anterior margin of the ulcer. Arrangements were made for an urgent biopsy.

Origins

The Calderdale & Huddersfield NHS Foundation Trust Professional Voice Clinic began in the mid-1990's when an enthusiastic singing teacher and singer/song writer Sally French from Holmfirth (Last of the Summer Wine country) sent a letter to myself, a Consultant ENT Surgeon working both at the Huddersfield and Halifax Royal Infirmarys for the previous 10 years, asking to be allowed to teach more patients like the 14 year old boy to whom she had just managed to give a singing voice after he had suffered papillomatosis, numerous operations and chemotherapy leaving his larynx devoid of papillomata but with a wide anterior commissure and an extremely breathy voice. Sally then joined a voice clinic made up of Isla Cliffe, Speech Therapist at Huddersfield, myself and a newly acquired analogue stack with stroboscopy for a monthly clinic where up to six patients were seen.

Constancy and Change

The number of patients and frequency of clinics has remained the same ever since, but there have been several changes in name and personnel. The two Infirmarys were combined into a single Trust in 2002 and the Voice Clinic moved from

Huddersfield to Calderdale a few years later, when a new digital stack was acquired by the Trust. Isla Cliffe left for Bradford Royal Infirmary to concentrate on head & neck oncology and her place was taken by Gill Jolly, who remained as a stalwart of the clinic, until she too recently left this time for Leeds Head & Neck Unit.

Sally French found she could no longer attend after about two years and her place was taken by David Lennox, who was extremely supportive and helpful particularly in the area of phonetics, until his illness and unfortunate demise last year. For the last four years Llyndall Trotman, who has sung in the Opera North Chorus and is still connected to Opera North through her husband who is a technical director, has enthusiastically taken on the role of coaching patients back to full voice generously offering two free so called NHS teaching sessions to rehabilitate patients singing voices.

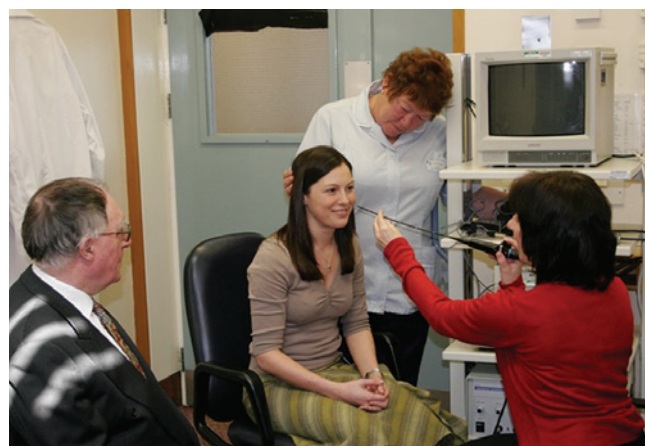
As the ENT Surgeon of the group, I have continued to take a great deal of interest in professional voice use encouraged by my interest in singing (for 24 years a member of the Huddersfield Choral Society and being married to a choral conductor, who studied singing at Huddersfield Polytechnic – now University – famous for instituting the Huddersfield Contemporary Music Festival) and music generally through playing cello in the Huddersfield Philharmonic Orchestra.

Gill Jolly conducted a telephone survey about two years ago and discovered we were the only voice clinic in the region that had both stroboscopy and a singing teacher present at the consultation. We also ran a patient satisfaction survey over a year or so and of forty six patients had a near 100% "positive result".

The Future

The popularity of the clinic is almost certainly maintained by the extremely musical nature of this part of the UK famous for numerous choral societies, folk, jazz, brass bands and male voice choirs, not to mention numerous small village choirs such as the one my wife conducts in Outlane, a village between Huddersfield and Halifax. Aware of the difficulties many Trusts have in maintaining their Voice Clinics, I am extremely grateful to our Trust for continuing to support this endeavour which satisfies an important local need and together with the Botox Clinic for spastic - also known as spasmodic – dysphonia, provides what I feel is the icing on the cake of the ENT Department.

So we have been lucky for 16 years and counting....counting on a replacement for our recently departed Speech Therapist!



Gill Jolly approaches a colleague and willing victim in a training session.

Vocalympics

Report by Hannah Northedge

Turning up at the George IV pub in Chiswick on a sunny April afternoon I had no idea what to expect from the Vocalympics Day that vocal coach extraordinaire (and soon to be BVA President) Kim Chandler was presenting. I didn't know if we would be expected to attempt any of these vocal extremities or just sit back and simply watch / listen and be awed (and possibly slightly scared!) by them.

It was a free two hour long event in celebration of "World Voice Day" and the upcoming London Olympics, so I was expecting it to be heaving with singers and singing teachers and people with a curiosity for the bizarre. The stylish room, complete with a stage and video screen, was about half full and I think this was only due to many transport problems and closed lines to that area of London on a Sunday.

Kim commenced by announcing that she was going to show footage of "vocal athlete" Steven Tyler, lead singer of rock band Aerosmith, from the TV programme "The Human Machine". I love this band and knew that Steven could shriek rather like Robert Plant (Led Zeppelin), but had no inkling that he could sustain such high notes so loudly and for as long as he was did throughout the duration of the concert the footage was taken from. What makes it all the more impressive was that he was in his late fifties at the time! I don't think many singers in their twenties could pull that off, so it demonstrates how physically fit he was.

Kim then moved down scale to the lowest notes a female could sing and played a recording of jazz singer Cassandra Wilson singing a low F#2 (normally reserved for the bottom of the male voice) in the song "Time of the Season" in a duet with Kurt Elling. She didn't sound manly or freakish though, but rather sexy and mysterious. I didn't initially realise that I could have written down my name to attempt to demonstrate these vocal extremities, but when Kim asked for female volunteers from the audience to sing their lowest notes, I put my hand up, but I don't think Kim saw as I was sitting at the back. I am an alto and can hit a Bb2 when warmed up, which is why I crazily decided to get on stage and demonstrate my highest note! Eeeeeeeek!

I have trained classically in the past and I

think this helped me to reach an E6 with Kim's encouragement.

That is paltry in comparison to the G10 (over 25,000 Hz and off the top of the piano by over two octaves) that World Record Holder Georgia Brown claims to have sung. Kim warily added that she would have actually liked to have heard the note with her own ears to believe it, but of course the human ear cannot perceive that frequency range. Kim was worried that the local dogs would suddenly come tearing into the room! Royal College of Music graduate, Chueh-Yu Lai, was then invited to sing the "Queen of the Night" Aria from Mozart's opera "The Magic Flute" and it was impressive to hear notes above top C6 being consistently hit with such agility and accuracy.

Kim had invited a few guest singers along for the day including the effervescent Vic Bynoe, a singer who has performed with artists such as James Brown and Primal Scream, who demonstrated the lowest male notes. Kim then played recordings of a Russian church choir with a soloist with a voice so low it sounded like a bullfrog singing! The whole room creased up at this bizarre voice singing serious liturgical text. If I'd have been in the congregation, I would have had to excuse myself, it sounded so comical. I really appreciated the way that the recordings and video footage were all backed up with scientific explanations as to how it is thought the singer in each case attained their particular note by explaining what was happening to the larynx and vocal folds at the time. This was very useful to me as a vocal coach.

There were two highlights of the day for me and the first was watching guest singer countertenor Martin Milnes sing "Glitter and Be Gay" by Leonard Bernstein from his musical "Candide" in the original female key! It was a little unnerving at first, but he was mesmerising as his vocal control and agility on extremely high notes was very impressive. It was a better performance than I've heard many women deliver. What made this all the more astounding was that Martin had to dash off shortly after he got off stage to go to sing a baritone role at another venue in London.

The second highlight was witnessing the rather rotund ENT surgeon and all round voice hero (and current BVA President) Tom Harris somewhat unexpectedly singing the longest note of anyone in the room (well over 30 seconds) after



Vic Bynoe - loudest note

competing against a still impressive attempt by former BVA president and voice coach Stuart Barr.

Other oddities that Kim covered were the longest note held. This was by one Richard Fink, who unbelievably sustained a note so consistent in tone and pitch that it didn't sound human after a while, and we watched footage of him doing this for 1 minute and 43 seconds until he went into negative air pressure and was bent double. He was again quite a comical spectacle, particularly as Kim read out a list of guidelines for "The Guinness Book of Records" that prohibited anyone from circular breathing.

The loudest voice came in the stout body of Camden town crier Alan Myatt, who was even louder than Brian Blessed with a deafening 112.8db. He could probably be heard in Camden, New Jersey at that volume! This was challenged live on stage by my friend and fellow vocalist Gordon Mark Webber, who came very close with 112.5dB and as a result was encouraged to challenge Alan's record.

From the variety of 'Vocalympians' on display, the last thing I expected to see was footage of Jaime Vendera, rock singing coach from the USA, smashing a crystal glass with the particular frequency he was singing at. Someone in the audience chipped in to say that he probably used particularly fine crystal to do this and tapped on the glass to hear what frequency it was vibrating at then tried to replicate that in his voice.

I appreciated how Kim got us on our feet to try out various exercises to gently coax our voices into going higher, lower, louder and for longer. I will continue to try these exercises at home. The energy in the room was buzzing and there was plenty to talk about afterwards. The presentation was enlightening, impressive, interactive and, at times, so hilarious that I couldn't stop giggling! I have been telling all my curious singing students about this fabulous day and recounting all the unbelievable feats.

WORLD VOICE DAY 2012



Report by
Sara Harris

April 16th 2012 found us once again promoting how important our voices are and celebrating keeping them healthy. As always, the BVA contributed to World Voice Day in a number of ways. Firstly, we produced another of our popular voice information leaflets which focussed on the topic of vocal fold (cord) paralysis, its effects on voice production and ways in which it can be treated. It is hoped these leaflets will be a useful downloadable resource for all voice professionals but particularly of course for Voice Clinics and Speech Therapy Clinics.

In response to suggestions made at the Voice Clinics Forum meeting in November 2011, the BVA also designed a questionnaire to gather data to support the evidence base that our Voice Clinics provide an efficient, holistic and cost effective service for voice patients. The purpose of the questionnaire is to track various possible voice patient pathways through the NHS system. Although this is only a pilot study initially, we hope in time to create national data that can be used to support continued funding of our voice clinic services, so many of which are under threat in today's financially challenged times. Anyone who is interested in gathering this data will find the questionnaire and some guidelines to help you carry it out on our website in the World Voice Day section.

On Sunday 15th April 2012 our President Elect, Kim Chandler, organised a special World Voice Day event entitled "Vocalympics" at the George IV Pub in Chiswick to celebrate the astonishing feats our vocal folds are capable of and

have actually achieved. The meeting was extremely well received by an enthusiastic audience, who not only enjoyed the demonstrations of vocal versatility but actively participated in exploring the longest notes, loudest notes, highest notes and lowest notes they could manage. Some even managed to give the Guinness Book of Records a run for its money. Our congratulations go to Kim for a great afternoon of vocal fun.

In 2011, the BVA contributed to an internationally organised questionnaire looking at levels of voice awareness for the average 'man in the street'. The Questionnaire also asked participants how important their voices were to them and whether they had suffered any hoarseness in the previous 12 months. The results of the data gathered here in the UK and also in Malta have kindly been collated by Speech and Language therapist Dr Ruth Epstein of the Royal Throat Nose and Ear Hospital and the results are available in an excel spreadsheet on the World Voice Day section of the website. We are trying to find out whether other centres have collated their results and whether they have been published yet.

As always, we have been delighted and impressed by the enthusiasm shown nationally and internationally by all sorts of voice professionals. Many speech and language therapists set up information stands in their local hospitals and health centres to provide information and advice about vocal care. It is good to hear that in many cases the BVA leaflets were frequently given to clients or members of the public to support the information given. Some voice clinics had an open day for the public, so that they could see what is available and learn more about how their voices work and where to get help if they should develop a voice problem. A sample of the World Voice Day Events is summarised on the World Voice Day website page.



Give as you Live™

The BVA has recently signed up to the fundraising website www.giveasyoulive.com that raises money for charities. If you, friends or family shop online, you can help raise money for the BVA with online purchases **AT NO EXTRA COST TO YOU.** A percentage of each online purchase made goes to your designated charity, provided solely by the online store. Over £2,500,000 has been raised for charities so far through this system.

diary dates

HOW THE BREATH INSPIRES

Sunday 23rd September 2012
The Assembly Hall, Baden Powell House, 65-67 Queens Gate
London SW7 5JS

In the morning, Alan J. Watson (Cardiff University) will introduce the physiology of breathing and present recent research into breathing for singers. Ed Blake will give a practical demonstration of the mechanism of breathing using ultrasound. In the afternoon, Jeanette Nelson (Head of Voice, National Theatre) will speak about breathing in acting. The day will conclude with a choice of practical workshops given by Ed Blake, Jeanette Nelson and Melanie Mehta (Speaking for classical singers).

Please check website for full details.

VOICE CLINICS FORUM

Thursday 8th November 2012
University Hospital of South Manchester, Manchester

Programme available shortly.

BODY MIND VOICE

Sunday 13th January 2013
The Assembly Hall, Baden Powell House, 65-67 Queens Gate
London SW7 5JS

Delegates will each participate in three practical workshops, given by Rosemarie Morgan-Watson (Feldenkreis), Chris Cullen (Mindfulness) and Glynn McDonald (Alexander Technique), each exploring the ways in which body and mind interact with voice.

Full details available on website shortly.

AGM, STUDY DAY AND GUNNAR RUGHEIMER LECTURE

Will take place on Sunday 30th June 2013

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