

Peer-Reviewed Article by Pat H. Wilson

Act, Sing, Speak: Voice in the World of Theatre



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"The act of speaking literally turns you inside-out. Your voice travels from the deepest center on its way towards the outer world and carries with it the qualities of your inner world." Robert L. Benedetti (1939 -), American actor, director and teacher

"Words are beautiful but restricted. They're very masculine, with a compact frame. But voice is over the dark, the place where there's nothing to hang on: it comes from a part of yourself that simply knows, expresses itself, and is." Jeff Buckley (1966 - 1997), American singer-songwriter and guitarist

Introduction

The defining sound of theatre is vocal. With the exception of mime, human phonation lies at the heart of all theatre art-forms, where the stories of our many tribes are recounted in spoken or sung sounds—mostly organized into intelligible language. The expertise of professional voice practitioners is demanded in a number of specialist areas within the world of theatre. From the initial training of performers' voices through to coaching for auditions or coaching as part of the rehearsal process in productions of live theatre (as well as radio, television and film), and on

to specialist training for the acquisition of accents, dialects and languages other than the performer's native tongue, the work of professional voice practitioners in theatre is diverse and demanding. An additional (and vital) area of work is that of vocal rehabilitation, where interdisciplinary teams of otolaryngologist, speech-language pathologist and voice practitioner(s) (singing teacher or speaking-voice coach or both) collaborate in the treatment and remediation of vocal problems. In all of these roles, the voice expert engaged in this practical work has an added responsibility which is unique to the world of theatre. As has been implied by the title of this paper, acting is the primordial element—the research for which needs to happen *before* any performer speaks or sings; voice professionals who work with theatre performers ignore this precept at their peril.

The Work

Although the range of tasks undertaken by voice professionals in theatre is broad, this paper is principally concerned with the practical psychomotor training aspects of voice work. In tertiary training institutions (universities, colleges, conservatories), it is the physically-based developmental training that sets practical performance courses apart from the mainly academic-learning approach of the majority of subject areas. Singing teachers and theatre voice teachers in tertiary institutions will readily recognize that this uniqueness can sometimes be more curse than blessing.

So, then, what do voice teachers do? "Singing is really a form of sport, within which neuromuscular training, aesthetic education, and exposure to the history and literature of the genre, and an understanding of current performance philosophies are just some of the tasks a good teacher undertakes with a student" (Callaghan and Wilson 2002, 112). This summary of a singing teacher's responsibilities holds equally true for the work of voice coaches and spoken-voice teachers. And, again: "Performers are athletes, from whom their director and producer demand high-energy, meticulously accurate, consistent and emotionally honest performances eight times a week" (Wilson 2010, 296). Although written in a music theatre context, this precept holds true for all theatre performers.

If, then, speaking and/or singing at professional performance level can be considered a form of sport, then the principles behind our work differ little from those that underlie sports training. Funding levels for sport science continue to be consistently higher than those for scientific investigations into arts-related activities. The silver lining of this cloud is that many of the findings of sport science in the areas of neuromuscular skills acquisition are readily translated into practical information which enhances the effectiveness of performance training. In particular, sport

science continues to offer useful training and performance enhancement protocols which relate directly to the singing and speaking voice needs of theatre performers in training, rehearsal, performance or rehabilitation.

It is vital that performers are carefully and thoroughly prepared to use their voices at professional level, where demands on stamina and skill are high. Investigations into the vocal fatigue of actors post-performance by Novak et al. (1991) indicate the need for pre-performance voice preparation and appropriate vocal warm-downs. The findings of Roy *et al.* include a clear indication that "...vocal training defends the laryngeal system from unwanted changes related to vocally violent maneuvers" (Roy 2000, 226).

When voice students or professional theatre performers sustain vocal damage, or are in danger of losing the full facility of their voices, there is urgent need for a vocal health team to be set up to deal with the presenting problem. Voice in theatre is an extreme of vocal usage (Rodenburg 1997, viii), and performers have need of specialist assistance when things go wrong, in much the same way as an elite athlete would seek medical assistance from a sports medicine practitioner rather than a mainstream medico. On voice specialists consulting with injured professional performers, Jeannette LoVetri says "...this performer is the vocal equivalent of an Olympic athlete who needs to be treated accordingly" (2006, 211). Singers' and actors' bodies are shaped both by their training and the ongoing practice of their chosen profession. Their torso musculature will be vastly different from that of people of comparable age and gender who do not use their voice professionally. Furthermore, the neuroanatomy of performers differs from that of non-performers as a direct result of the neuromuscular training (including voice training) that they receive (Mithen and Parsons 2008).

Where Theatre Performers Work

It is all too easy for singing teachers and voice coaches to overlook the work and life contexts of the performers with whom they work. This oversight can be perilous. It is likely that tertiary-level students are working at a part-time job (at least one) to help them survive. Theatre performers who can live comfortably on their performance income alone are the exception to the rule. Professional actors and singers usually need to do one or more other jobs to maintain themselves. It is very important for the voice professional who works with these people to know exactly what work they do, and under what circumstances.

Jobs commonly undertaken by tertiary-level students in order to pay their way through college can inflict vocal damage. One simple example suffices. Call centres love employing actors—they have good voices, excellent people

skills, and are trained to manage and defuse emotionally challenging responses. Regular six-hour shifts on the phones as a telemarketer or call centre worker can impair vocal health, while continuing call-centre work over a lengthy period leads to structure/function vocal damage (Titze et al. 1997, 256; Jones 2002). Because telemarketers also operate computer keyboards simultaneously during calls, the fascinating correlation between keyboard operation, RSI (repetitive strain injury) and vocal dysfunction (Verdolini and Ramig 2001, 41-43) should also be noted.

A useful rule-of-thumb to remember is that, in modern western-style economies, about one-third of the workforce relies on voice as the primary tool with which they do their job (Vilkman 2000). The vocational list includes teachers, trade unionists, auctioneers, counsellors (psychologists, psychiatrists, social workers), checkout staff, clergy, waiters, bar staff, lawyers (especially barristers), sales assistants and health care workers. Although a healthy and functional voice is required for all of these professions, some jobs are disproportionately represented in an otolaryngologist's waiting room. A warning flag should be mentally hoisted if a performer or student performer with whom you are working tells you that his or her part-time job is as a teacher, an aerobics instructor, a dance teacher, a telemarketer, a waiter or a bar attendant (Fritzell 1996; Titze et al. 1997; Verdolini and Ramig 2001).

Even if performers' part-time jobs present no likelihood of damage to their voices, dangers lurk when they come to do their *real* job. Pyrotechnics offer fire hazards, theatrical makeup can cause a range of skin irritations and allergies, stage lighting and wiring present the continuing possibility of electrical accidents, rigging can fail, and some costumes in the more fanciful areas of theatre, opera, and music theatre are windfalls for local physiotherapists. (Music theatre pieces beloved of health practitioners for their kinky costuming include *The Lion King* and *Beauty and the Beast*.)

In addition, "life upon the wicked stage" presents a huge range of potential vocal stressors. Prudent theatre voice teachers and singing teachers will not only alert their performers-in-training to these likely pitfalls, but also teach them to be proactive and alert to occupational health and safety issues which may in some way impinge upon their vocal health and strength. Sound levels in the modern rock musical can be set at rock-concert levels in order to please their audience members. Pity the actor/singer attempting to pitch accurately and maintain functional vocal health in extreme noise levels eight times a week; there will inevitably be vocal repercussions for long-term exposure to dangerous noise. The patrons enjoy two or three hours of it. The performers work for 24 hours a week within it. Should the sturdy performer survive all this, there are still a number of vocal hazards in the theatre (Richter et al. 2002),

chief of which is dust. Performers "...frequently complain of dry and dusty air at rehearsals and performances." (Richter et al. 2000, 80). The findings of Richter et al. validated performers' protests; they regularly found that, in theatres without compensatory humidification, the conditions were usually far too hot and dry for healthy vocal work. (Richter et al. 2000, 80). Extremes of vocal sound (screaming, yelling, sobbing) may be required of the performer. Some scripts demand cigarette, cigar or pipe smoking. Theatres are no longer allowed to use tobacco products on-stage in many locations now, but herbal stage cigarettes are by no means vocally safe. Investigators have found that they produce a level of carbon monoxide at least as high as that produced by tobacco cigarettes (Groman et al., 1999). Stage combat, and its concomitant physical and vocal effects, places a very specific range of demands upon the performer (Raphael, 1991). Added to these hazards is the frequent use of smoke and fog effects, some of which may cause respiratory irritation.

Richard Miller's acute observation holds as true for actors as it does for singers: "It is difficult to determine where the instrument of the singer leaves off and where the instrument case begins. In any event, the singing instrument is dependent upon the condition of its carrying case" (Miller 1996, 218). Thus, the duty of care for all theatre voice teachers, vocal coaches and singing teachers should be not only to the *instrument* of the theatre performer, but also to the functional health of each instrument's carrying case.

Chickens and Eggs

In a chicken-and-egg manner, theorists have long debated which came first—speaking or singing? The British composer Ralph Vaughan Williams believed that singing began as a natural outcome of emotional, impassioned speech. In support of his assertion, he musically notated a loud and passionate political speech, observing that its intonation pattern resembled the melodic structure of a folk song (Vaughan Williams 1955). However, the recent research of anthropologist Steven Mithen proposes that musicality has far more ancient evolutionary roots than spoken language (Mithen 2005). In this, Mithen confirms the earlier speculations of philologist Otto Jespersen, who proposed that, in human evolution, the capacity to sing preceded the capacity to speak (Jespersen 1922), and Charles Darwin, who hypothesized, "Primeval man, or rather some early progenitor of man, probably first used his voice in producing true musical cadences, that is in singing" (Darwin 1871, 133).

"Singing and speaking are accomplished by the same instrument; we can move easily from one activity to the other in the same breath; and speaking and singing onstage have similar technical requirements" (Melton and Tom, 2003, 135). "We have one voice, not two... Speaking and singing

are two ways we coordinate our one voice to express ourselves. There is more similarity in the two co-ordinations than there are differences" (Thurman and Welch, 2000, xx). Cultures in which singing is as commonplace as speaking often lack a formal division between these two vocal functions. However, traditional Western cultures familiar to most readers of this paper will tend to break up human vocal performances into spoken or sung modes. The ways in which theatre voice skills and singing skills are currently taught often reflect this unspoken perceptual divide. Because it is commonplace for peoples of Western cultures to use their speaking voices every day in both private and public contexts, the importance of acquiring spoken-voice skills can tend to be downgraded by the less-aware would-be theatre performer.

An awareness of the interdependence of both phonatory activities can only assist any voice professional. The work of Jeffries et al. (2003) has given great insight into the ways in which the brain manages both spoken words and sung words. Their PET (positron emission tomography) study (which employed intravenous H₂¹⁵O as a radiotracer) asked trained singers to sing a song which was very familiar to them, and then speak the lyrics of that same song at a natural, conversational rate. Scans of the subjects' brains taken during the performance of these tasks revealed, amongst other data, that speaking results in relative increases in activity in the left hemisphere of the brain, whilst singing the same text produces roughly three major focal areas of activity in the right side of the brain, with none of the left-brain activity noted during the speech tasks. The training of actors and singers can only benefit from this insight into the central processing functions of the brain during speech and song. Since the right-hemisphere and left-hemisphere activities are not mirror-imaged, it is advisable for vocal coaches to employ singing as a part of their theatre voice training work, and equally as sensible for singing teachers to use spoken-voice work as part of their singing training, in order to gain as wide a range of brain activity as possible in the learning process.

The findings of this investigation also validate a process used by those singing teachers who insist upon students being able to speak the lyrics of their songs in natural (non-rhythmic) prosody. This practice ensures that the singers have functional data for the song stored in a range of different places within both hemispheres of the brain. Teachers generally devise and formalize their preferred process for this. As a recent example, Gerald Seminatore's (2010) paper "Teaching poetry through song: A modest proposal," details the processes for speaking, analyzing and paraphrasing song lyrics by which he instructs singers to speak the text they intend to sing well before they attempt to sing it in performance. Seminatore's stated goal is "...to teach students not only how to sing notes and phrases, but also to

speaking words and ideas in songs as if they were the student's own" (Seminatore 2010, 515). It is telling that this material appears in the *Journal of Singing*. Most acting teachers would regard Seminatore's work as worthy but hardly groundbreaking.

Patsy Rodenburg, in her fine book, *The Actor Speaks*, says, "Many singers are frightened of speaking. Many speakers are frightened of singing. The two voices rarely meet and overlap with ease. There is often a grinding of vocal gears as a singer moves into speaking or a speaker into singing. Energy ceases to flow naturally and the voice can make alarming jumps in terms of placing and pitch" (Rodenburg 1997, 137). Linda Gates (1998) suggests that the reason that there appears to be much more scientific research undertaken into the singing voice, as opposed to the speaking voice, is because the singing voice "...is easier to measure, as it deals with exact, not approximate pitches" (Gates 1998, 6). Gates interviewed a number of voice professionals regarding the development of "...a shared pedagogy that recognizes the demands of both the singing and the speaking voice" (Gates 1998, 6). One of Gates' interviewees, Sunny Joy Langton (opera singer and voice teacher at the School of Music, Northwestern University) said, "There is seldom training of the speaking voice when training the singing voice"; and added, "There is need for an integrated approach to professional voice for actor/singer that is team taught" (Gates 1998, 8). Gates herself concludes, "Training institutions should implement joint training of both the speaking and the singing voice, with full communication between teachers of speaking and singing" (Gates 1998, 9).

Joan Melton, well-known for working across both singing and theatre voice, offers the following observation about the current lack of interdisciplinary thinking in voice training courses for actors and singers. "Actor training programs frequently include techniques for every possible use of the voice except singing, and training curricula for singers seldom include theatre voice. Acting for Singers is becoming a regularly required course for many opera majors but is seldom supported by the prerequisites of theatre voice and movement. Likewise, singing is often available as a peripheral and/or optional course in acting training but is seldom supported by appropriate connecting links to the rest of the actor's work" (Melton and Tom 2003, 135). My anecdotal experience is that it is rare to find an undergraduate opera course or B. Mus. singing-major course which offers spoken-voice training as an integral part of its curriculum, and not just as one of a group of electives. This would seem to be a gap in any well-structured tertiary singing voice curriculum, in the light of Callaghan's advice, "misuse of the speaking voice, or use of a tired speaking voice, has direct and indirect effects on the singing voice" (Callaghan 2000, 105). Some of the actor training programs I have either observed or worked within have done a little better integrat-

ing singing voice training into their full-time undergraduate drama courses. Unfortunately, Melton's observations still hold largely true.

I once worked as Head of Voice in a university where the Department for the Arts was divided into two major areas – Visual Arts and Performing Arts. Funding for our department was allocated as a single amount. The mandarins of the university, in their wisdom, asked the departmental Joint Committee (a bunch of dancers, painters, actors, sculptors and singers) to divide this amount into equitable portions with proper regard for the needs of the department as a whole. Committee meetings were lengthy and bloody; politics ruled. I would like to think that the theatre voice teacher, the singing teacher and the acting teacher could invent new ways of working together which would enrich and empower the performers whom they train. The multidisciplinary approach favoured by some professional voice associations (British Voice Association and Australian Voice Association are just two of which I am aware) forms a useful model for collaborative enterprise in the voice world.

The Consolations of Neuroanatomy

The work of spoken-voice teachers and singing teachers is, in essence, practical psychomotor training (Callaghan and Wilson 2002, Nisbet 2003). It should be an encouragement to all these training professionals that the work they do effects profound changes within the performers with whom they work. It is common knowledge that training changes both behaviours and bodies. However, recent research quantifies the nature and amount of structural and functional changes to the brains of participants in any neuromuscular skill acquisition tasks.

Mithen and Parsons' (2008) paper, "The Brain as Cultural Artefact," argues that our brains are a direct product of the society and culture within which we exist, and offers direct correlational evidence of this cause-and-effect relationship. Their research investigates adult learning and "...the extent to which the anatomy and function of the brain can be deliberately manipulated in much the same manner that one can mould a piece of clay..." (Mithen and Parsons 2008, 417). The measured outcomes of Mithen's self-experiment of learning to sing as an adult (Mithen, 2008; Mithen and Parsons 2008) serve as a real encouragement to voice teachers. Prior to undertaking any formal singing training, Mithen's brain activity was monitored via a functional MRI (fMRI) brain scan, whilst he sang a range of technical exercises and two songs. A year later, during which Mithen attended regular one-on-one lessons with a singing teacher, he repeated the same exercises and songs that he had performed previously, again whilst being monitored by fMRI. Significant increases in brain activity were noted in the second set of fMRI data, when compared with

that of the initial brain scan of a year before. Much of the enhanced activity was in the right hemisphere (c.f. Jeffries et al. 2003). Mithen and Parsons observe that the results are "...consistent with the hypothesis that changes in processing music and singing occur in the right hemisphere early in the development of skills, with higher levels of skill development associated with bilateral brain mechanisms" (Mithen and Parsons 2008, 420).

The research work of Maguire (2000) using London taxi-drivers found that the posterior hippocampus (the region of the brain which facilitates spatial memory, i.e., navigation tasks) in London taxi-drivers was consistently larger than that of comparable non-taxi-drivers. Investigations by Draganski et al. (2004) used a sample of adults who could not juggle. These participants were taught to juggle over a three-month period. Brain structures of the jugglers were compared before and after their acquisition of a new neuromuscular skill, and also compared with a group matched for age and sex who did not learn juggling. The study reports a significant expansion in the jugglers' brains, specifically in those brain areas which manage visual-motion information. A strong positive correlation was noted between juggling performance and the amount of additional grey matter in subjects' brains. In a fascinating addition to the study, the investigators asked the participants to do no juggling for the next three months, after which time, participants' brains displayed a marked decrease in those areas of grey matter which had increased during the juggling.

It can be drawn from these experiments that we who train adults to acquire new sets of neuromuscular skills are, in reality, helping our students to build new structures and pathways in their brains. That frequent injunction to "keep practicing" (voice exercises, singing exercises) is clearly advice designed to help students retain the new brain structures that their training has sculpted.

In 1986, Dr Candace Pert, pharmacologist and research neuroscientist, wrote in a discussion of her research into molecular transmitters, biochemical receptors, and their role in communications between the nervous, endocrine and immune systems of the body, "I believe that neuropeptides and their receptors are a key to understanding how mind and body are interconnected, and how emotions can be manifested through the body. Indeed, the more we know about neuropeptides, the harder it is to think in the traditional terms of a mind and a body. It makes more and more sense to speak of a single integrated entity, a 'body-mind'" (Pert 1986). Fourteen years later, Thurman and Welch entitled their fine three-volume monograph of vocal pedagogy and all things voice, *Bodymind and Voice: Foundations of Voice Education*, observing that they sought to use "...a single term that reflects the unity of psychophysical processes" (Thurman and Welch 2000, xiv).

A further extrapolation of Pert's thought is found in neuropsychologist Antonio Damasio's book, *Descartes' Error: Emotion, Reason, and the Human Brain*: "It is not only the separation between the mind and brain that is mythical: the separation between mind and body is probably just as fictional. The mind is embodied, in the full sense of the term, not just embrained" (Damasio 1994, 118). It is with this fully embodied mind that any theatre performer must work; in fact, Pert's comment (above) contains a fine definition of every actor's challenge: "...how emotions can be manifested through the body." Thus, acting, the *sine qua non* of all theatre performers, can be seen to be somatic—a body-based task which engages the actor from cell level upward throughout the whole body organism. It is this overriding principle which should serve as guide and inspiration to all singing teachers, voice coaches and teachers of theatre voice.

Conclusion

Is it utopian to dream of a collegial cohort of interdisciplinary acting/singing/speaking experts who train theatre performers? Can a future for theatre training be seen where experts have been cajoled out of their safe old pigeon holes (labelled "singing teacher," "acting coach," or "spoken-voice teacher") and all work under the banner of "vocal/emotional theatre specialists"? While wholeheartedly agreeing with Linda Gates' (1998) call for a shared pedagogy between theatre voice and singing, I think that performers would derive even more benefit from theatre training which moves seamlessly among the crafts of acting, singing and speaking, whilst maintaining sensitivity towards the spirit of integrated emotional truth behind it all. After all, acting is *conditio sine qua non*. It is the ur-component which provides the voice with that precious vector of intention, from which flows catharsis, empowering utterances with the Aristotelian theatrical ideal.

Two authorities on performance should share the epilogue to this discussion about the training of performers in speaking and singing for the passionate arts of theatre:

"At the start of their training few young actors realize how fundamentally important their voices will be for them throughout their careers...They have yet to think of their bodies and their voices as instruments which they must learn to 'play' properly..." (Rodenburg 1997, 4).

"Master your instrument, master the music, and then forget all that shit and just play." Charlie 'Bird' Parker (1920 – 1955), American virtuoso jazz saxophonist and composer

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