



## Breath: The Magic Ingredient in Lifelong Singing

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### Introduction

Breathing is a simple, natural function. It is a central topic to us who are voice teachers of older singers. For the last fifteen years, we have worked with a group of ca. 60 senior citizens (68-96) living in a continuing care retirement community in Gainesville, FL. At the end of each season, we ask the participants what they appreciated most about our work together. Besides the obvious joy of singing, these older singers report that breathing for singing calmed them, helped them concentrate and feel physically energized. For singers of all ages, having enough breath to sing the music is a concern. In 2020, the *New York Times* best-seller list featured a book entitled *Breath: The New Science of a Lost Art* by James Nestor. Because of the pandemic, the whole world seemed to be holding its breath. We became more interested in why breathing is such a mystery. Why should a magical ingredient that turns silence to sound and speech to song be so elusive?

*Who are we and why are we presenting on breathing?*

As a married couple associated with the University of Florida for many decades, we have been active as clinicians, researchers, and authors specializing in the topic of strategies for lifelong singing.

*What do voice teachers and singers know about breathing?*

All of us share basic knowledge about breathing. It is a fundamental skill, a life-giving activity in which humans engage daily about 25,000 times without much thought, a power source for the voice both in speech and song, and an essential tool that will be used in different ways over a lifetime. Breathing is a mysterious process since we never see it, but we know it is there. We have known for a long time that we are “submerged” in an ocean of air. From a letter written in 1644, we discover that Evangelista Torricelli, a mathematician, and friend of Galileo wrote: “We live submerged at the bottom of an ocean of air.” Gabrielle Walker, in her 2007 book entitled *An Ocean of Air* described how air was “discovered” and “accounted for.” It is a fascinating story. The book was reviewed in the *New York Times* on August 3, 2007, by William Grimes who celebrated the substance by speaking of its admirable performance for so many centuries. “As a metaphor for absence and nothingness, air has performed admirably for centuries. It (air) has pulled off one of the greatest con jobs in human history, concealing endless complexities behind its bland, transparent façade.” Think about how we speak of air as if we could touch it, feel it, gather it up in our hands, and make it do what we might like. Air has its own way of being. It surrounds us and assists us with all our tasks.

### *How should one breathe?*

Through the nose? Through the mouth? Through a combination of both? To determine best practices James Nestor and a research colleague created an experimental protocol that isolated nasal and oral inhalation to determine best practices. Their conclusions align with those of most medical professional. Nasal breathing is preferable because the inhaled air is warmed, purified, and humidified. In general, the experiments suggested that breathing through the oral cavity is less efficient.

### *How is breathing for singing different?*

Breathing for singing is a unique skill that facilitates phonation and lyric communication. The character of the breath determines much about the character of the singing. For singers of all ages, it is important to create the “need” for breath by exhaling fully before inhaling. Nasal breathing affords singers a spirit of calmness comparable to those recognized in current mindfulness practices. Older singers report that nasal breathing seems more “organized” than oral breathing. We know that the inspiratory muscles work in tandem with the expiratory ones to guide air into and out of the body. In a buoyant, expansive seated or standing posture, a singer who relaxes and “welcomes” air through the nose will sense a connection that activates efficient phonation. Oral breathing, according to the results of Nestor, can invite tongue movements and tensions that may be undesirable.

### *Why do we breathe as we do for singing?*

For singers, breathing is central to a broader tradition known as the “Bel Canto Ideal.” It began with chanting and moved into the secular world. Monks, choir boys, and castrati mastered skills that caused texts to undulate through large acoustical spaces. The young men who sang early opera developed sophisticated vocal effects they used to ornament melodies found in arias. The early treatises were written about these special effects.

It may seem odd to us that basic inhalation and exhalation methods are not discussed in the early vocal treatises. When we consider that young choristers spent years receiving daily choral training, we recognize that breathing for singing was a routine practice. The early treatises do address issues regarding the use of the air including *messa di voce*, and *appoggio*.

It is important to remember that early opera singing as defined by the Florentine Camerata was intended to “elevate” speech. Though opera singing was about the beauty and power of voice, it was mostly about expressing a text containing a moral truth, one that had stood the test of time. The three major forms, recitative, aria, and ensemble, each allowed for different ways to deliver the text. The recitative conveyed the action, while the aria expressed emotion as a comment on the action. The ensemble brought more than one opinion into a single sound. As the opera grew, its accompanying forces expanded, and singers learned to cope.

### *When should we breathe?*

In early opera, it is thought that breathing may have been dictated by the punctuation of a text. According to Robert Toft in his *Bel Canto: A Performer's Guide* (2013), pauses in music were associated with specific punctuation marks. A comma deserved a short pause, while a semicolon received two counts. One waited three counts at a colon and four at a period. This “hierarchy of pauses” implies that a faithful delivery of text was of primary importance.

We see that early vocal pedagogues united the idea of breathing for singing with the meaning and expression of text. Giulio Caccini (1551-1618), singer, singing teacher, and composer of song created many works that attest to this use of breath to express text. In his aria, “Amarilli,” Caccini designed what would now be considered a “stream of consciousness” approach to the text, allowing the singer to express the meaning through well-prepared, gentle onsets (*messa di voce*) without hurry or rigid pulse. The work was accompanied like a recitative with a drive to its final ornamented cadence on the word “amore” or love. Giovanni Bardi (1534-1612), an influential member of the Florentine Camerata wrote a *Discourse addressed to Giulio Caccini, called the Roman, On Ancient Music and Good Singing* in which the author stresses the importance of text. “Keeping in mind that just as the soul is nobler than the body, so the text is nobler than the counterpoint, and just as the mind should rule the body, so the counterpoint should receive its rule from the text.”(115)

Pier Francesco Tosi (1653-1732), a singer whose skills were considered in their day perfection, a composer, and a teacher, was aware of being one of the first to commit his observations to publication. His *Observations on the Florid Song* (1723) were divided into chapters for teachers and separate ones for students.

To voice teachers, he wrote: “A master that disregards Recitative probably does not understand the words, and then, how can he instruct a Scholar (student) in Expression, which is the Soul of vocal performance, and without which it is impossible to sing well.” (#11)

To students of singing, he wrote: “With the Study of Musick, let him (them) learn also at least the Grammar, to understand the Words he is to sing in Churches, and to give the proper force to the expression in both languages .” (Latin/Italian) (#7)

Giambattista Mancini (1714-1800) was the Singing Master at the Imperial Court of Vienna. His book, *Practical Reflections on the Figurative Art of Singing* (1774/7) was dedicated to the Serene Mary Elizabeth, Archduchess of Austria, Princess of Hungary. In the preface, Mancini stated: “Singing is one of those arts which lives more by the transmission of its precepts than by examples or illustrations.” Though he did not address the mechanics of breathing, he discussed the success of many famous singers – some with better natural instruments and some with less beautiful ones but better acting skills and “graces.” He considered Faustina Bordoni “unsurpassed.” She was “a master in the unfolding and sustaining of the voice, and the fine art

of holding and retaking of the breath, acquired through assiduous study.”(38) In describing the execution of *messa di voce*, he suggested: “Start very quietly, economize the breath by producing sound in small degrees. Increase strength and then ‘retire’ it.” Of Don Carlo Broschi, better known as Farinelli who trained with Porpora in Naples, Mancini wrote: “The perfect art of holding the breath, and retaking it with such clearness so as to not allow anyone to know when he was breathing, started and ended with him.” (122) Mancini notes that Farinelli was well-educated and had an *inventive* mind. His book concludes with the following wisdom: “A singer...cannot express passions and feelings nor transmit them to the public if he (they) does not comprehend the value and meaning of each word; if he does not know and speak well the pure Tuscany tongue (Italian).” (167) He suggested that every singer should read and recite poetry daily, read and study the history and literature of the Latin and Italian languages. (170)

### *What is messa di voce?*

It is considered by many to be the ultimate test of vocal coordination. It has always been a pedagogical exercise that has been mentioned often in early treatises. *Messa di voce* can be a useful assessment tool of value to determine vocal readiness and health. It is also an essential performance practice in certain styles and especially in choral singing. The use of *messa di voce* can enhance diction and expression as well as delineate the musical form.

### *If breathing is a simple, natural function, how did breathing for singing become such a mysterious topic?*

For centuries, the phrase “To breathe is to sing” has been a motto. Some teachers advocate for the reverse, saying: “To sing is to breathe.” Both phrases are ambiguous. According to James Stark in *Bel Canto: A History of Vocal Pedagogy*, Gasparo Pacchierotti (1740-1821), one of the most famous castrati of his time, is credited with its earliest version. (91) It is thought that he may have said: “He who knows how to breathe and pronounce well, knows how to sing well.” (“Chi sa ben respirare e sillibare saprà ben cantare.”) It is surprising, therefore, that vocal pedagogues and singers disconnected words from music and breath. In the 21<sup>st</sup> century, we benefit from evidence-based vocal pedagogy. Many 20<sup>th</sup>-century vocal pedagogues spoke of techniques such as “clavicular” or chest breathing, “belly” breathing, “back” breathing. Some experts believed that the use of the corset on the operatic stage proved that intercostal/diaphragmatic breathing might not be optimal. Today there is no mystery surrounding the mechanics of breathing. How singers manage air may vary based on age, size (voice/body), physical fitness, and gender. Physical conditioning is always significant, but especially among older singers. Mental agility, temperament, musicality, and text sensitivity are also factors. The music itself presents breath management obstacles. Phrase shapes that ascend and descend symmetrically require less air, while descending to ascending phrases demand slightly more. Breath management for melodic material that rises and falls in rapid succession is comparable to fuel economy for city versus highway driving. Tessitura, accompaniment, and language are other contributing factors to efficient breath management.

*What happens when breath management is governed by textual meaning?*

Recent research has proven that the body knows how to express what it understands. As Lisa Feldman Barrett reports in *7 ½ Lessons about the Brain* (2020), the brain's biggest job is budgeting body functions. Breathing and communication are such functions. It seems logical that the singer who *embodies* the textual meaning will be able to communicate it through singing. When we speak, breath management happens instinctively. Consider it: Do we stop to think how much air we will need to speak the words in a sentence? The body knows what the brain wishes to say and accommodates the communication with ease. In singing, we may be able to benefit from the same system, if we fully understand what the text in its musical context means. In the world we live in, a plethora of modern devices allows us to listen to music mindlessly. It is easy to imitate voices and to sing words in many languages without contemplating its poetic thought. In the process, we disconnect the brain from its ability to “budget” the body. Barrett tells us: “Communication in your brain is a balancing act between speed and cost.” (33) In describing body-budgeting and the brain, the author explains: “Your brain is wired to prepare for action first, like moving your index finger onto a trigger and making body-budgeting changes to support that movement.” (76) It appears that if the brain knows what a singer wishes to express, the body will coordinate and budget the systems required for communication.

*What might singers do to facilitate the principles of body-budgeting and the brain?*

The brain must be “taught” the music, the text, and the meaning. Systematic, mindful learning of notes, rhythms, and diction organizes the brain and calms the spirit. There are many resources for discovering the true context of a musical work. If we investigate and grasp the historical and cultural context of a song or aria, we become more confident about our interpretation and performance of it. A word-by-word translation of a text is essential. In some cases – such as the Ruth and Thomas Martin adaptations of Mozart operas -- a reliable singable translation can reveal the inner pathos of a character. Once we understand the level of comedy, tragedy, apathy, or wonder, we can sing with intention in the foreign language.

Rhythmic drive and rhyme scheme are other building blocks for breath management. The patter songs of Gilbert & Sullivan are good examples of rhythmic vitality merged with comic meaning and rhyme. A recent book review entitled “The End of the Line” by Adam Gopnik in *The New Yorker* (May 30, 2022), the author observes: “Rhyme turns language into ritual.” He uses the text of a patter song from Gilbert & Sullivan’s *Pirates of Penzance* to demonstrate his point.

I am the very model of a modern Major-General,  
I’ve information, vegetable, animal, and mineral,  
I know the kings of England, and I quote the fights historical  
From Marathon to Waterloo, in order categorical...

As we read the text aloud, we sense its potent drive from rhyme to rhyme.

Gopnik notes that lyrics of a particular type help the reader “find” the important words of phrases. The example he gives is Kurt Weill’s setting of Ogden Nash’s words for “That’s Him”

from the 1943 musical, *One Touch of Venus*. There is alliteration within an interior rhyme that moves the mind to an inevitable end.

You know the way you feel when there is autumn in the air

That's him...that's him...

The way you feel when Antoine has finished with your hair

That's him...that's him...

Texts that are alive with rhythm, rhyme, and alliteration are attractive to composers. Following the compositional process helps us understand how the words became the music we sing.

## Conclusion

Research demonstrates the power of words upon the brain and body. “Why do the words you encounter have such wide-ranging effects inside you? Because many brain regions that process language also control the *insides of your body* including major organs and systems that support your body budget.” (89) These systems belong to the “language network” of the body which includes our heart rate and breathing patterns. It is not a metaphor to say that words have power. Our brains are wired for words and communication. Each note you sing is a precious gem of vocal tone connected by breath that is budgeted by the body through the complex functioning of the brain. This may be the deeper meaning of the phrase: “To breathe is to sing and to sing is to breathe.”

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## **For Further Reading**

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