

# Habilitation for the Aging Avocational Singer

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**W**E ARE GETTING OLDER. Nearly seven million Canadians are currently age 65 or older.<sup>1</sup> More than two-fifths of U.S. Baby Boomers have already reached the *de facto* retirement age of 65; the first Gen Xers to cross this aging milestone will do so in 2030. By 2060, 94.7 million Americans are projected to be age 65 or older.<sup>2</sup> Williamson reports that “the fastest growing segment of the population is in the over age 85 category.”<sup>3</sup> This means a steadily growing market segment for the informed voice teacher who understands and can address the needs of the aging singer.

The purpose of this article is to curate some thoughts on voice pedagogy (listening, interventions, and resources) that can equip voice teachers to better support an aging singer clientele. It will identify aspects of the aging process that impact the singing voice, and touch on pedagogic interventions for six common challenges experienced by aging singers: onset, power, intonation, vibrato, noise, and vowel production. An in-depth discussion of serious age-related diseases such as Parkinson’s, chronic illness, or vocal pathologies is outside the scope of this article. The assumption is that voice teachers understand and embrace their role as part of a greater voice care team that will include certified medical experts to whom one defers whenever issues of health and singing intersect.

## WHAT IS AGING?

Aging is a complex process in which changes at the molecular, cellular, and organ levels result in a progressive and inevitable decrease in the body’s ability to respond appropriately to disruptions.<sup>4</sup>

[Aging affects] accuracy, speed, endurance, stability, strength, coordination, breathing capacity, nerve conduction velocity, heart output, and kidney function. Muscle and neural tissues atrophy, and the chemicals responsible for nerve transmissions change. Ligaments atrophy, and cartilages turn to bone (including those in the larynx). Joints develop irregularities that interfere with smooth motion. The vocal folds themselves thin and deteriorate, losing their elastic and collagenous fibers. This makes them stiffer and thinner and may correlate with voice changes often noted with aging such as breathiness, slightly decreased volume, “thinning” of the voice, and loss of vocal efficiency . . . The vocal fold edge also becomes less smooth.<sup>5</sup>

The loss of muscle mass from aging is also known as *sarcopenia*.

Johnson and Brunssen correlate these widespread systemic changes to the following effects for the aging singer: loss of range (up and/or down); noise in the sound; breaks in the voice; “knerdly” sound and other compensatory effort; intonation; need to take a few more breaths; vibrato slower; warming up takes longer; unclear open vowels; slower coloratura; less ring and intensity in the sound; vocal fatigue; cramping in voice: ceiling; /h/ between notes; difficulty with soft singing and decrescendos; debilitating and compensatory efforts to make up for compromised function.<sup>6</sup>

Gerontologist Dr. Tracey Gendron questions the ethics of feeding the larger narrative of aging as a progressive decline.<sup>7</sup> “Older age is a time that we can actually look forward to. People really just enjoy themselves more and are at peace with who they are. I would love for everyone to say their age at every year and celebrate it.”<sup>8</sup>

Can one recapture youthful vigor? Exciting new research shows that it soon may be possible to undo the reduction in capillary density that accompanies aging. Capillaries are the vehicles through which oxygen off-loads from the blood to the muscle cells. The greater the density of capillaries, the faster the metabolism is excited.<sup>9</sup> A 2018 study on aging mice successfully restored the number of blood capillaries and capillary density seen in younger mice, concomitantly restoring their ability to exercise rigorously as in youth.<sup>10</sup> This is encouraging as we develop future therapies that can benefit humans.

One manifest advantage enjoyed by the aging performing artist is life experience. Lived experience “allows older singers to bring a level of emotion to a performance that is not possible in youth.”<sup>11</sup> Another point of optimism is that aspects of the aging process respond very well to intervention. Physical decline does not take place uniformly among the body’s systems, and there is mounting evidence that good nutrition, maintaining a healthful lifestyle, and daily exercise can delay or even reverse aspects of aging.<sup>12</sup> Unless contraindicated, aerobic exercise such as swimming, walking, or jogging likely will benefit the aging singer. “Strategies designed to increase activity level will, in fact, improve well-being.”<sup>13</sup>

When does aging begin for the singer? Sataloff reports that he sees aging-related challenges in singers starting around age 30.<sup>14</sup> The aging process is determined by genetics, environment, and lifestyle choices, making for

a highly individualized experience. Some researchers assert that *chronological* age is the suitable predictor of functional changes through the lifespan,<sup>15</sup> but another gauge is the individual’s *biological* age, where functional assessment plays a more important role.

The task of the voice teacher is to detect functional challenges such as those named above, advise referrals to healthcare professionals when necessary (e.g., laryngologist), and otherwise devise interventions to support the singer. That begins with listening.

## EXPERT LISTENING

Expert listening is vital to teaching voice. The twenty-first century voice studio benefits from emerging perspectives in psychoacoustics, that branch of psychology concerned with perception of sound. How we listen is as important as what we listen for. Cornelius Reid’s seminal essay “Vocal Mechanics and the Cultivation of Listening Skills” (2007) reminds us to listen for function first.<sup>16</sup> In their discussion of the skills necessary for the twenty-first century voice pedagogue, Gill and Herbst provide us with a checklist of what to monitor in lessons.

Expert listening at the psychoacoustic level should attempt to objectively assess features like periodicity/irregularity, fundamental frequency ( $f_0$ ), amplitude and  $f_0$  modulation (vibrato), broadband noise components, spectral slope of the voice source, or formant structure.<sup>17</sup>

Is the tone clear and strong? Is the melody sung in tune? Does the vibrato draw attention to itself (too fast, too slow, too wide)? Is there unwanted crackle in the tone? Is the basic sound breathy, balanced, or pressed? How well do the sung vowels meet the twin goals of comprehension and vocal ease? The answers to these questions should guide the teacher toward suitable pedagogic interventions.

## TYPES OF STUDENTS

This article addresses the needs of the aging avocational singer. Whether we are working with someone who wants to audition for a local musical production, a senior citizen, a true adult beginner, or someone who presents with poor vocal habits, “each type of student needs a teacher to have a clear approach toward a specific goal and adjust that approach accordingly.”<sup>18</sup> Someone who

is 65 years or older may have previously enjoyed a career as a professional voice user (e.g., media professional, lawyer, member of the clergy, teacher, etc.), which already will give them an advantage according to one study that found, “a singing or a teaching career compared with a non-vocal career has a positive impact on the vocal frequency range, and that singing has a positive impact on the perceptual vocal quality of the older female.” Further, “the voices of choir singers with a singing career were perceived significantly less rough than voices of the women with a non-vocal career.”<sup>19</sup>

Aging affects the biological sexes differently, and any modern article on the aging singer would be remiss without mentioning the important recent texts on female singers by Abitbol, and singers navigating menopause by Bos, Bozeman, and Frazier-Neely.<sup>20</sup> Their work is worthy of close attention.

### Group Lessons

Voice researcher Sangeetha Rayapati writes about class voice and the aging singer. She says that “a group dynamic allows for a healthy competition and promotes individual vocal growth.”<sup>21</sup> One feature of a class format is personalized feedback from a community of peers who are also experiencing age-related challenges. Outcomes include “increased self-confidence, increased self-actualization, increased interaction with people sharing common interests, and perpetuation of habits of life-long learning.”<sup>22</sup>

### A FUNCTIONAL APPROACH

Voice *habilitation* is this “process of strengthening the voice to meet specific demands. For a significant sector of our population, a ‘normal’ voice is not enough to meet occupational or recreational needs.”<sup>23</sup> Therefore, habilitating the aging singer means equipping aging singers with functional tools to unlock their vocal potential in the present, not the past. In this sense, habilitation shares a natural simpatico with the familiar term *functional training*, which LoVetri defines as follows:

Functional training . . . conditions the muscles of the vocal mechanism, over time, indirectly, through exercises, to respond *automatically* [emphasis hers]. It provides a basis to strengthen and stabilize the overall sound; maintain flexibility; extend pitch range; increase

breathing capacity; endurance, and management; control vowel sound configurations and allow for a variety of tones to be produced at will without struggle or fatigue . . . Functional training applies equally to every singer, and allows an individual to apply skills and knowledge at any point in time.<sup>24</sup>

The last point bears amplification. The competencies that LoVetri identifies are worthwhile technical goals for singers of all ages. Gill and Herbst call this skill building process “voice building,” and assert unequivocally that it is “the most central area of voice pedagogy.”<sup>25</sup>

Aging students may compensate in order to arrive at their idea of a viable sound. Teachers need to encourage whatever sound results from correct function. Frederic Root said, “nothing must interfere with the prescribed rules for producing a tone. Accept without question the tone that comes when you have assumed a natural position.”<sup>26</sup> Austin further offers, “Root’s caution not to judge the outcome of the exercise but to commit to the right process is in line with the teaching of Cornelius Reid and many others whose first purpose is to build upon the natural response of the voice, and not to train the singer to produce a sound of a particular quality.”<sup>27</sup> This means that teachers must work with students in the present, with what they are capable of right now, with the understanding that studying voice is a process. Reject compensations. Propose the intervention, set it up well, and sing. Accept what comes, with the understanding that underlying weaknesses will be strengthened over time.

This is the long game. Daily training prevents the attrition of muscle fibres.<sup>28</sup> Daily training should not be strenuous or lengthy: a ten to fifteen minute daily session is a good start, with more short sessions added as desired or need be. A traditional daily regimen would include a warm-up, selected vocal exercises, and a cool-down period.<sup>29</sup> Novelty is important in the selection of these exercises, “seeking offbeat and, simultaneously, fun experiences—not because they are difficult but because they are different.”<sup>30</sup>

Vocal exercises may increase muscle bulk enough to restore glottal closure in singers with minimal glottal incompetence: this is a real physical benefit of interventions that teachers can advocate.<sup>31</sup> Another benefit of vocal exercise may be the attenuation of acute vocal fold inflammation (where one study shows that “resonant

voice” exercises improved outcomes in patients with acute vocal fold injury).<sup>32</sup>

## SIX COMMON CHALLENGES FOR THE AGING SINGER

Earlier we identified six common challenges faced by the aging singer: onset, power, intonation, vibrato, noise, and vowel production. Each is now discussed. While the exercises that follow are curated from disparate sources, the reader may be interested to look closer at a single text full of suitable remedial exercises applicable to any of the challenges named here, Rosenberg and LeBorgne’s recent *The Vocal Athlete*.<sup>33</sup>

### Onset

Miller’s discussion of the three types of onset (soft/breathy, balanced, and hard/glottal) is essential reading for all voice teachers and will not be repeated here.<sup>34</sup> Ian Howell offers this in his unpublished primer on technical competencies and basic skills:

1. Take a medium breath. Close the glottis. Gently(!) exhale a puff of air past the glottis. A soft click should be audible.
2. Take in a full breath. Close the glottis. Open the glottis without exhaling more than the tiniest puff. Close and repeat. The muscles of inhalation will feel very active (hint: this encourages the feeling of *appoggio*, or Garcia’s *la lutte vocale*).
3. Demonstrate Garcia’s *coup de la glotte*: say “awesome,” followed by a sustained sung [a] first in chest (M1/heavy mechanism), then head voice (M2/light mechanism). This is the *coup de la glotte* as Garcia understood it, not as his detractors misunderstood it.<sup>35</sup>

### Power

*Sostenuto* is a builder of the vocal instrument.<sup>36</sup> “Sustained tones provide the kind of isometric exercise that develops muscle tone and strength in the laryngeal muscles used for singing, including the management of breath flow.”<sup>37</sup> “Singing sustained tone exercises in the low register strengthens the thyroarytenoid muscle, which enhances the tone quality of both the chest voice and the head voice.”<sup>38</sup> With sustained tones mastered, dynamic shading can be explored. “There exists a close correlation between the sound vocal technique the old Italian masters taught and their heavy reliance on ‘iso-

metric’ exercises such as the *messa di voce*.”<sup>39</sup> Skillful execution of the *messa di voce* adds control to developing vocal power.

Two modern therapy techniques have been scrutinized through research and are based in principles of exercise physiology. Both approaches—one soft, one loud—have been found to improve age-related voice changes and lead to increases in voice-related quality of life and decreases in phonatory effort in age-related dysphonia.<sup>40</sup> Vocal Function Exercises (VFEs) were developed by Joseph Stemple for use by patients who had difficulty speaking, to strengthen and balance laryngeal musculature and to balance airflow against muscular effort.<sup>41</sup> VFEs are carried out at extremely soft dynamics. “VFE may produce significant auditory-perceptual and functional improvements in the aging voice.”<sup>42</sup> “The VFE is a useful tool for the treatment of aged vocal fold atrophy.”<sup>43</sup> On the other end of the spectrum, Phonation Resistance Training Exercises (PhoRTE) seek to reverse sarcopenic changes in the vocal mechanism and restore the perception of a “youthful” sounding voice through loud voice production.<sup>44</sup> Consult a certified speech and language therapist to fully explore the purpose and application of these therapies.

### Intonation

The choral conductor Kent Tritle recalls having to tell a member of the Oratorio Society of New York in her late 80s that her pitch was sagging and maybe it was time to retire. Instead, she went off to work with a vocal coach and returned to the choir a year later. Newly secure, she sang for four more years before she died.<sup>45</sup>

Brunssen recounts the effectiveness of semi-occluded vocal tract exercises (SOVTs) with one of her students, a 70 year old high school choral director.<sup>46</sup> They began by humming, then progressed to bilabial lip trills ([b]) on 123454321. Lip and tongue trills engage the respiratory system, and teach the vocalist how to budget breath pressure for efficient phonation, especially with ascending pitch. They loosen up the orofacial muscles, and establish sensations of vibration in the front of the mouth.<sup>47</sup> Over the course of their study together, the ring in Brunssen’s student’s voice returned, and her intonation improved enough to allow her to sing solos in church and resume her place as an asset to her choir’s alto section.

## Vibrato

Reid writes, “In a true vibrato, one is unaware of oscillating movements; pitch appears to be centered, and the tone alive, vibrant, and beautiful.”<sup>48</sup> In other words, we really only notice tremolos and wobbles outside the perceived norm of 5–7 cycles per second. To remediate a wobble (slow vibrato rate), Rayapati suggests using imagery: “For example, some singers were asked to think of their air coming out in a straight line, rather than a wavy line that might follow the contour of the melodic line.”<sup>49</sup> Pragmatic Miller identifies the cause of a wobble as insufficient resistance to airflow, and suggests that *appoggio* is the solution.<sup>50</sup>

## Noise

Noise is nonperiodic (nonharmonic) information in the sound signal. If noise in the sung tone is detected, try some exploratory vocalises (e.g., gentle sustained notes, glides, and *staccati*) to determine whether that noise is a momentary artifact in the sound that clears up, or if it is a more present feature of the voice. Depending on the style being taught, noise may be desirable as a unique feature of the singing. If unwanted noise persists, advise the student to get scoped. It is important to understand whether this noise is systemic (being caused by an anomaly on the folds or some other aspect of the vocal tract) or behavioral (being caused by compensations that the singer is introducing) before committing to a plan for resolution.

In my DMA practicum I was assigned a tenor in his late 70s who exhibited a very noticeable rattle throughout his sung tone like none I had ever heard before or since. This gentleman was an accomplished scholar with a PhD, and was intelligently skeptical of any intervention I might suggest. We worked on alignment, breath work, staccato, vowel formation, and music making. I decided that the best way to honor his keen intellect and desire to sing in our short six weeks together, was to ignore the pervasive rattle in his sound. We worked through repertoire instead, and I reoriented my role as a supporter who was (and is!) deeply invested in protecting his enthusiasm for singing.

## Vowel Production

Age-related structural changes in the default shape of the oral cavity can affect vowel formation, and so can a

loss of dentition.<sup>51</sup> We basically deal with these singers as we deal with our younger students with braces. There is evidence that aging singers experience positive changes while executing an open jaw posture (a dropped jaw).<sup>52</sup> This is the central topic of Nair’s new book.<sup>53</sup>

Janice Chapman’s self-styled “Dial-a-Vowel” exercise subtly exploits a fronted *basis of articulation*. “This exercise was developed to help students find an Italianate tongue posture and setting, but has proved extremely beneficial when singing in other languages.”<sup>54</sup> The jaw is passive but immobile, making the tongue the only agent of motion for this exercise. Protrude the tongue to its maximum. Allow it to spring back and say “mio Dio” while noticing where the sides of the tongue touch the back upper molars. In this fronted position, sing a supported /i/ vowel. While sustaining this /i/, adjust the tongue subtly until the sound is maximally resonant. Chapman calls this optimally resonant configuration the “sweet spot.” Starting in this “sweet spot” configuration, sing through the sequence /i e a o u/ on a single comfortable middle pitch. Notice the precise adjustments of the tongue as the singer moves through each vowel. Then sing a descending and ascending five-note major scale staccato on /i e a o u o a e i/ on 543212345. With the jaw still uninvolved but immobile, notice the tongue excursion with the descent and ascent of pitch. The singer is encouraged to relate all vowels to this baseline fronted /i/ configuration, and once this “sweet spot” is normalized, the jaw can resume its passive participation without losing resonance. For very high pitches, the tongue will of course come away from the top teeth, but this should now be a natural extension of the easy basic “sweet spot” default. The reader is encouraged to read Chapman’s description in her own words, and to view the helpful music examples she has published in support of this exercise.

## CONCLUSION

George Bernard Shaw said, “We don’t stop playing because we grow old. We grow old because we stop playing.” Advocating these ten actions compiled by Speech and Language Therapist Sara Harris can help to preserve and strengthen vocal function as we age.<sup>55</sup>

1. Socialize. Connect with friends and meet new people. Volunteer. Engage with community.

2. Warm up daily. Start the day with a 10–15-minute warmup regimen, perhaps based on some of the suggestions in this article.
3. Sing daily. Singing is in the doing. Take lessons or join a choir or ensemble, and adopt a singing regimen. Even reading a book aloud for ten minutes daily is helpful.
4. Move regularly. Exercise often. Walk when possible. Take the stairs when possible.
5. Eat a healthy and varied diet in moderation.
6. Hydrate. The trope is eight glasses of water daily. Reducing caffeine intake also supports our efforts to stay hydrated.
7. Quit smoking. Many support options are available for smokers who wish to quit. A physician can help.
8. Enjoy alcohol responsibly, and keep consumption to a minimum.
9. Make the brain work. Read. Work through cross-words or sudoku. Stimulate and challenge yourself.
10. Get your hearing checked. Wear hearing aids if you have them. They will help you to monitor your speech and to maintain clear articulation.

There is a growing sector of aging avocational singers who need informed instruction. Voice lessons are noninvasive and can be highly effective. The synergistic effect of voice habilitation for the aging singer is significant. As voice quality and facility improve, the singer experiences a boost in their confidence and ability to control vocal communication. “In some cases, this confidence is almost as therapeutic as measurable acoustic improvements.”<sup>56</sup>

## NOTES

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As an operatic bass, Dr. Mitton’s professional roles include Angelotti, Don Alfonso, Bartolo, Rossini’s Basilio, the Commendatore, Hard Boiled Herman, the Narrator in Britten’s *Paul Bunyan*, Sarastro, Sparafucile, and Zaccaria. He is a proud two-time alumnus of the Tanglewood Music Center, the Aspen Music Center, the Britten-Pears Young Artists Programme,

Jane Eaglen’s Wagner Intensive, the Highlands Opera Studio, and The American Wagner Project, which operates under the umbrella of Dolora Zajick’s Institute for Young Dramatic Voices.

The ubiquitous migration to online voice teaching in 2020 means that his boutique private voice studio, which serves low male voice singers, now includes students in Canada, the US, and Europe. In addition to teaching voice, Dann currently serves on the editorial board of VASTA’s *Voice and Speech Review*. He created and co-moderates two popular Facebook fora for voice educators: the New Forum for Professional Voice Teachers (NFPVT), which has become a vital platform for moderated discussions on the professional use and care of the voice; and Lyric Diction and Linguistics (LDL), which boasts curations of niche sung languages (e.g., Greek, Hungarian, Macedonian, Mandarin) and conversations between diction aficionados.

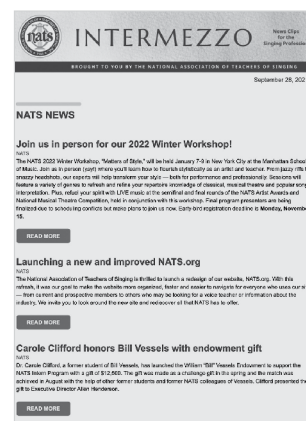
Born and raised in Moncton, New Brunswick on Canada’s east coast, Dann and his husband Bob share their east-end Toronto home with Owen and Conor, two giant, fluffy, ridiculous Bernese Mountain Dogs. While they haven’t quite mastered barking in harmony yet, it is a musical family, so it is only a matter of time.



# INTERMEZZO

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