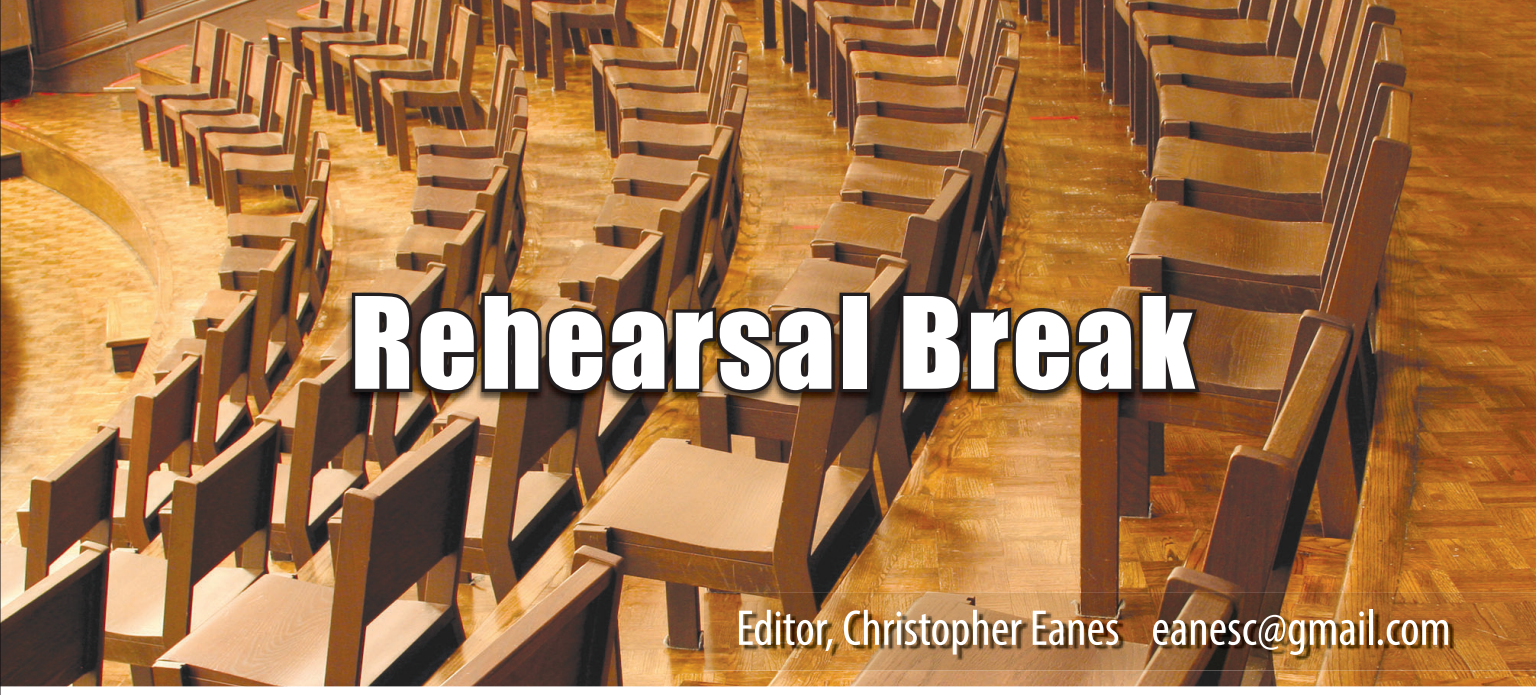

Rehearsal Break

Editor, Christopher Eanes eanesc@gmail.com

What's in Your Vocal Model?
Establishing a Voice Quality Ideal in the Choral Rehearsal

by Brian J. Winnie

Modern notation in choral repertoire generally lacks an indication of the composer's desired vocal quality. Expressive adjectives and phrases such as "floaty" and "extremely light and delicate with a very smooth effect" are sometimes used to describe such ideals, but these can be interpreted many ways. Some singers may define floaty as having a breathy quality, whereas others may define it as quiet and non-breathy. Regarding historic notated repertoire, teachers can gain insight from the vast array of musicological research on performance and style practices. But this is different from hearing a live performance. It's difficult to imagine how a Gregorian chant would have sounded to the composers/arrangers in the tenth century versus what is heard from vocalists and ensembles today. Will we ever really know a composer's sound ideal and how it relates to historical context and vocal production standards at that time?

There are two challenging tasks when exploring voice quality within a composition. The first is to determine the authentic, sustainable voice quality to use for a particular style of repertoire (i.e., folk, gospel, classical). Since notation cannot provide all the answers, teachers can only make their best-educated guesses from research or active communication and exploration with a living composer. Teachers can also reflect on previous experiences and utilize live or recorded performances of the commissioned ensemble or exemplary ensembles for guidance. Even recordings, however, are not altogether as helpful because of the many technological adjustments to voice quality created through the editing process with programs like auto-tune and Melodyne.

The second task is to teach the desired voice quality and its differences from other voice qualities. This can be accomplished by teaching students the perceptual, anatomical, and acoustic elements of voice quality. I find, however, that students' focus on voice quality diminishes when performing a sight-reading task if that voice quality is not learned effectively. Students instead tend to default to a "sight-reading" quality, which can undermine their learning.

An advantage of learning music aurally is that the sound ideal can be taught while learning the song. Rote learning, though not age specific, is a traditional part of many early elementary music pedagogies and varied teaching methodologies like Dalcroze and Kodály. When utilizing rote learning, teachers can use modeling and imitation activities to help students of all ages increase their vocal awareness and self-efficacy. In order to be effective, however, teachers must gain an awareness of these sound ideals and be able to model and teach them in a healthy, sustainable way. As students gain more independence and understanding of their voice production, they can begin sight-reading repertoire using

specific voice qualities. This process places emphasis on teaching sound *before* sight and then sound connected *with* sight.

Modeling and imitation are both integral components of human learning. We imitate the gestures and behavior of others, and we learn language through the imitation of sounds. Specific to the teaching of music, modeling is defined as a "live or recorded presentation of anything that may be imitated by an observer."[1] Research suggests that vocal modeling has a more significant effect than speech-directed modeling (giving verbal instruction with no vocal modeling) on individual and group music achievement and student attitudes in the choral rehearsal.[2] Modeling has also been suggested to be a more effective strategy than verbal description for teaching musical performance throughout a wide age range distribution (i.e., elementary through graduate).[3]

The mere act of modeling, however, does not mean the observer has learned the targeted behavior, and not every model is helpful. According to Albert Bandura's Social Learning Theory, four processes occur before a student can imitate and learn from a model: 1) *attention*—the student cannot learn unless they pay attention; 2) *retention*—the student must remember the task; 3) *reproduction*—the student must be able to reproduce the intended task after guided feedback; and 4) *motivation*—the student must have a vested interest in learning the task depending on responses and consequences.[4] What follows are helpful strategies for incorporating Bandura's processes into the teaching of vocal quality.

Attention

Vocal production is a very intricate process and is influenced by thirteen distinct structures in the body. As defined by Jo Estill, these structures include True Vocal Folds Onset/Offset, False Vocal Folds, True Vocal Folds Body and Cover, Larynx, Thyroid Cartilage, Cricoid Cartilage, Aryepiglottic Sphincter (epilarynx), Tongue, Velum (soft palate), Lips, Jaw, Head and Neck, and Torso.[5] Cognitive Load Theory suggests that learners have a limited working memory and can only hold between five and seven pieces of information at one time.[6] I find that limiting objectives to one structure at a time can help students focus their attention. For example, teachers can model and have students listen for nasality or for a low or mid velum.

I find it helpful to label the anatomy as described in the example instead of relying solely on descriptive terms. Though effective in certain situations, descriptors like "bright" versus "dark" or "twangy" versus "hollow" can have many meanings and cause confusion. This confusion can make it difficult for students to know how to reproduce the voice quality accurately. Eventually, physiological instructions—for example larynx height, velum height, pharyngeal width, or tongue position—can be complemented with more descriptive language. This is especially valuable for novice singers or those new to a specific voice quality who could benefit from an internal focus of attention.[7] Teachers can benefit, however, from knowing how to model these adjustments and recording themselves often to know how they sound when modeling.

Retention

One of the trickiest parts of the teaching process is helping students retain knowledge explored in class, whether practicing skills on their own or transferring learning over to the following rehearsal. Teachers can establish practicing norms within a rehearsal by focusing the lesson plans on the smallest amount of material that will have the most meaning for

them and by keeping the learning episodes short. An ideal structure is twenty-minute teaching blocks with eighteen minutes of teaching time and two minutes of downtime.[8] As described in the Attention section, students can benefit from working on one element of voice production at a time. Likewise, students can then break up their practice on any task into eighteen-minute chunks and then move to a completely different task.

Teachers have a variety of tools and strategies to help students succeed. Spectrogram software can be used to record students and provide valuable visual feedback. Having students record themselves can offer a more complete aural perspective of their production. Apps or programs with spectrograms are helpful audiovisual aids. Teachers can take time to discuss the recordings as a class, in small groups/pairs with teacher-guided practice, or have students reflect individually.

It's important to note that a student's perception of their own voice—particularly when imitating a vocal model—is influenced by hearing themselves partially through bone conduction. Providing specific, goal-oriented feedback after a task helps guide students to perceive their production more accurately, and can aid in retention. However, teachers should also ask students to reflect on what occurred and self-assess. This extra bit of time can be very beneficial.

Vocal isolation exercises can also help the students practice all possible conditions of a particular vocal structure. For example, try having students sustain a pitch on a vowel and slowly move the velum from high to mid while performing a "nose test." While singing with a mid velum, have students plug their nose to hear a change in the sound.

If the sound stops abruptly, the velum was most likely in a high position. Maintaining a single vowel and pitch allows students to focus on one structure, the velum, while not changing other parameters of vocal production.

David Sousa suggests that teachers should place new information they want students to retain in the first part of the class period or teaching episode. Students "remember best that which comes first, second best that which comes last, and least that which comes just past the middle."[9] This means it's also crucial that the information presented is accurate. Otherwise, students are more likely to recall the inaccurate information even if corrected later.

Learning is rarely linear, and students may find that new knowledge is contradictory to their prior experiences. Teachers can use the students' previous knowledge to introduce new concepts while helping them understand the differences and not negate previous learning.

Reproduction

A student's ability to reproduce a specific voice quality will depend on many variables. First, students must be able to produce the sound consistently. Keep in mind that some students might be able to repeat the sound in the moment but find it difficult the following day. It will take time to develop a repeatable skill, so teachers must provide time throughout the rehearsal for facilitated practice. Strategies can include creating group activities that incorporate critical thinking, discussion, and the creation of target goals in every rehearsal.

Students must have ample time to practice and explore a specific task, but they don't need to perform aloud. Students can practice a goal silently or mentally before performing the exercise aloud. This is known as feedforward practice.[10] Eventually, students will feel more comfortable demonstrating and modeling aloud for other students within the classroom environment. These individual demonstrations and teaching within the group rehearsal should be supportive and should focus on what students can learn from one another.

Although these strategies are an investment of time, students can develop transferable skills that will be useful in learning future repertoire. This was a common theme during the pandemic on many social media groups and pages such as Facebook's "I'm a Choir Director." Teachers reported focusing less on the teaching of repertoire and more on teaching foundational skills due to the limited ability to rehearse virtually. Post-pandemic rehearsals can continue emphasizing the development of these skills to help students build their self-efficacy for future musical independence.

Motivation

The final and sometimes most challenging part of the learning process is developing students' motivation. Teachers sometimes over-motivate students with positive praise, and other times students are extrinsically motivated by the fear of grade-based vocal assessments. Research suggests that an increase in motivation can increase a student's processing time of new information in working memory, thereby helping to increase retention.[11] In other words, students who are intrinsically motivated are more apt to continue working through the information in a variety of ways and connecting it to prior experiences. This simultaneous connection to a student's previous learning experiences and curiosity for new ideas and approaches can be very powerful in the choral rehearsal. Teachers can plan opportunities within the rehearsal to

explore students' personal needs, values, interests, and attitudes. I find this promotes genuine conversation and discussion, which can further increase motivation.

Whatever the motivational means, teachers must find ways to help students become interested in learning. Often that can be achieved through repertoire selection, or by changing daily practice from simply teaching the music to teaching students vocal skills that will help them perform all styles of music more authentically. Breaking the process down through targeted attention can also help students feel motivated because they can see and hear the smaller accomplishments. Once they have interest, they are more likely to attend to new learning and retain and reproduce that learning later.

Conclusion

Exploring different voice qualities and styles is a valuable part of student learning, and a teacher's vocal model can be a powerful tool. Teachers can benefit from practicing these models to make them more effective. A recent study by Sandy Hinkley investigated the effects of vibrato and pitch-varied vocal models on acoustic measurements of high school and undergraduate singers' vocal performance. For the purposes of this study, the pitch-varied models were in-tune, sharp, and flat. Hinkley found that, while all singers had a propensity toward flat singing, vibrato rate tended to increase while singing after a vibrato vocal model, and singing after pitch-varied models affected singers' accuracy. Hinkley suggested that "choral educators may need to acknowledge the possibility that singers regularly imitate vocal inaccuracies, imprecisions of which the conductor and/or singer may not be cognizant of in the moment. Consequently, consistent self-assessment through video analysis may be the key to increasing choral educators' awareness and improving modeling practices."[12]

With an added focus on developing voice quality along with other music literacy skills, teachers can help students explore a varied and sustainable approach to singing a diverse body of repertoire. Teachers can then choose specific voice qualities to help deliver the composer's intentions both musically and textually. To do this, teachers should first research current trends and ideals in voice quality, then explore the possibilities within their own voices. As our vocal models improve, so too will our effectiveness and efficiency in teaching voice qualities and skills to our students. CJ

Brian J. Winnie is the director of choral studies at Western Illinois University. bj-winnie@wiu.edu

NOTES

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[3] Marc R. Dickey, "A Review of Research on Modeling in Music Teaching and Learning," *Bulletin of the Council for Research in Music Education*, no. 113 (1992): 27-40.

[4] Albert Bandura, *Social Foundations of Thought & Action: A Social Cognitive Theory* (Upper Saddle River, NJ: PrenticeHall, 1986).

[5] Kimberly Steinhauer, Mary McDon-ald Klimek, and Jo Estill, *The Estill Voice: Model Theory and Translation* (Pittsburgh, PA: Estill Voice International, 2017).

[6] George A. Miller, "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information," *Psychological Review* 63, no. 2: 81-97.

[7] Lynn Helding, *The Musicians Mind: Teaching, Learning, and Performance in the Age of Brain Science* (Lanham: Rowman & Littlefield Publishing, 2020), 143.

[8] David A. Sousa, *How the Brain Learns* (Thousand Oaks, CA: Corwin, 2017), 102-111.

[9] Ibid., 101.

[10] Lynn Helding, *The Musicians Mind: Teaching, Learning, and Performance in the Age of Brain Science*, 130.

[11] David A. Sousa, *How the Brain Learns*, 75-76.

[12] Sandy P. Hinkley, "Effects of Vibrato and Pitch-Varied Vocal Models on Acoustic Measures of High School and Undergraduate Singers' Vocal Performance," *International Journal of Research in Choral Singing*, no. 9 (2021): 15.