Choral Pedagogy and Vocal Health

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Amateur and professional singers of all ages participate in choral music in school, church or synagogue, community choruses, or other civic venues. Choral pedagogy, the newest academic field in performing arts medicine, addresses the need for choral conductors to be better informed about vocal health. Many choral conductors are instrumentalists or keyboard players, not singers. For decades, choral conducting was taught as an adjunct to orchestral conducting. More recently, several authors have addressed the special issues of choral conducting that can strengthen voices rather than injure them, and of vocal health in singers, choral and solo performers. In an article entitled “The Development of a Choral Instrument,” Howard Swan, conductor of the Occidental Glee Clubs and founder of the Choral Conductor’s Guild, wrote

Choral conductors, even more so than teachers of singing, are divided in their opinions concerning vocal technique. Some refuse to employ any means to build voices. Either they consider such procedures to be unimportant, or they are afraid to use an exercise which is related to the singing process. Sometimes the choral director cloaks his own ignorance of the singing mechanism by dealing directly with the interpretive elements in a score and thus avoids any approach to the vocal well-being of the individuals in his chorus.

Therefore, when evaluating the health of a singer engaged in choral activities, a health care professional or singing teacher should pose a number of questions.

- Is the choral conductor primarily a singer? An instrumentalist?
- Does the choral rehearsal begin with a period of warm up and end with a cool down? If so, what is the nature of the warm up? The cool down?
- Is there a policy regarding choral posture for sitting and for standing?
- Does the singer sight sing music easily?
- Is music taught in the rehearsal using the piano or the voice?
- Are the text and music taught simultaneously?
- What is the level of discipline within the choral group?
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• Does the conductor offer the choir a breath gesture?
• Are singers often asked to sing in extreme vocal ranges?
• Is there a seating chart for the choir? Is the seating arrangement determined by vocal qualities? By height?
• How frequently does the choir perform? What level of difficulty is the repertoire? Is it sung with piano? Orchestra? Organ? A cappella (without accompaniment)?
• Is there a break during the rehearsal? Is food served? Are caffeinated beverages consumed?

WARM UP AND COOL DOWN PROCEDURES

If the choral conductor is a singer, the rehearsal is likely to begin with a warm up period. The purposes of any warm up period are: 1) to adjust the voice from speaking to singing; 2) to align the body and free the breathing mechanism for the act of singing; 3) to create a physical awareness of the vocal mechanism being used correctly; and 4) to stretch gently and exercise the skeletal muscles used in phonation following the principles of muscle physiology that highlight the importance of muscle warm up prior to any athletic activity.

In a choral rehearsal, these adjustments are best made when a well-trained singer or qualified conductor sings patterns and gives verbal instruction regarding their execution. In the introduction to the book Voice Building for Choirs, the authors write:

A choral conductor who feels incapable of presenting choral voice building exercises to a choir may wish to call upon a professional voice teacher or a trained choir member to fulfill the assignment. In any case, one must resist the temptation to employ the organ or the piano as a mechanism for voice building because of the percussive nature of both instruments. The conductor who is involved with performing as an accompanist for the choir is not capable of hearing critically.1

If the choral conductor is an instrumentalist who has chosen to assume the role of leadership with a choir, it is probable that the preparation for singing will be a series of tuning exercises or a set of patterns played upon the piano. If tuning exercises begin the choral rehearsal, singers may attempt to sustain the speaking voice to achieve proper pitch levels. The mechanism of the piano is a percussive action in which internal hammers hit metal strings. Singers instinctively imitate its sound by pressing on the back of the tongue while producing tone. Constriction and tension then follow in the pharyngeal and laryngeal areas. Generated by pressed phonation, this initial choral sound may continue for an entire rehearsal. This is not only tiring, but also potentially injurious because of excessively increased forces of vocal fold contact. Choral singing should be refreshing to the voice, not fatiguing. This is not to say that the piano can never be used during warm ups. Many good choral conductors and singing teachers use the piano without adverse effect, but only if they are aware of the pitfalls and expert at obtaining good vocal technique despite the piano. The choral rehearsal should be a forum for developing singing techniques that are healthy with or without piano accompaniment, but the vocal instrument must be built upon proper posture, breath support, and resonance techniques, under expert guidance.

Only recently have voice pedagogues realized the importance of a cool down at the conclusion of a period of singing. Just as the voice adjusts during a warm up from speech to singing, a cool down returns the voice from the extremes of the singing range to a comfortable speaking condition. Physiologically, cool down vocal exercises are analogous to stretching exercises advised after running or weight lifting. In general, choral rehearsals may last from ninety minutes to as long as three hours. After an extended period of vocal activity, it is helpful to assist the vocal mechanism in identifying the speaking range of the voice and to reinforce or restore appropriate muscle relaxation, tone, and flexibility.

The cool-down period can be brief but must not be forgotten. A steady, extended sigh from the highest to the lowest ranges of the voice, a gentle shrug of the shoulders, or a simple recitation of poetry on a supported tone will prepare the singers for conversational speech, and will help relax muscles just as cool-down exercises do after sporting events.2

Choral ensembles have adopted various strategies regarding warm up and cool down procedures. Church musicians, for whom the pipe organ is the primary performing medium, frequently ask church choir members to rehearse the hymns for the coming worship service as an act of warm up or cool down. This may be an efficient use of time, but it can be detrimental to the singers. Many choral singers cannot read text and music simultaneously with ease. A good warm up separates vowel shapes from consonants, allowing the voice to flow on the breath before introducing the complexities of forming consonants. When text and music are required simultaneously under pressure in rehearsal circumstances, inexperienced singers may tighten jaw and neck muscles and sing without proper support for several verses of music, thus tiring the voice unnecessarily and risking vocal injury.
Care of the Professional Voice

In some choral settings, singers are asked to arrive at the rehearsal prepared to sing. Since most choral ensembles convene in the evening after a full day’s work or in the midst of an academic schedule, few singers can be expected to have either the time or the discipline to complete a useful warm up prior to arrival at the rehearsal. If a student of singing complains of hoarseness or vocal fatigue after choral singing, the teacher’s first inquiry should investigate the opening moments of the rehearsal. The seeds of tension are often planted there. Should warm ups be unproductive or cool downs absent, the teacher of singing must provide the choral singer with a short regimen of exercises to ensure adequate preparation for the tasks of choral singing. Ideally, if the teacher can delicately communicate these suggestions to the conductor as well, they may benefit the whole choir, not just one student.

POSTURE

Choral conductors must be responsible for the posture of the choir in seated or standing positions. Posture is important because of its effect on the efficiency of breath support musculature, and therefore on the degree of tension or efficiency with which laryngeal muscles are used during singing. Posture affects vocal fold contact forces and injury potential, as well. Fearing the appearance of tyranny or nagging, many choral conductors refrain from admonishing their choral singers regarding poor posture. Others may assume that singers, like instrumentalists, have learned their singing techniques, including proper posture, through years of private instruction. Such a presumption can be very harmful to the vocal health of choral singers, most of whom are untrained. In the eyes of the choral singer, the choral conductor is an authority in the area of vocal music. If the conductor allows poor posture habits among the singers, this failing can produce not only bad singing technique in untrained choral singers, but also a wide gap between studio teaching and choral training.

It is important for choral conductors, vocal coaches, and teachers of singing to discuss the maintenance of good posture at all times. To date, there are few chairs designed to encourage proper support of the spine for singing. (For more information, see the chapter by Richard Norris “Seating Problems of Vocalists,” in Smith and Sataloff, Choral Pedagogy.) Students of singing must be taught to stand, sit, and walk with erect, balanced posture—even if the matter is not addressed by the choral conductor.

TEACHING OF CHORAL REPERTOIRE

Music

A healthy singing tone evolves from a process of neurological signals that are expressed through the vocal tract. Therefore, a clear mental image of the pitch and the vowel must be created before a clear, ringing tone can emerge. The act of “audition,” the term used in music education for hearing the vocal sound before phonation, requires training, practice, and timing. In the corporate setting of a choral rehearsal, participating singers present with various levels of musical skill. Some may sing music readily at sight, while the majority rely heavily upon the power of imitation to learn notes, rhythms, and words. Thus, choral singers who read music readily tend to lead those with less skill. This practice causes a weaker singer to avoid the opportunity to train the ear and create a mental image of the desired pitch/vowel combination, and it may also stress the more skilled singer who may sing too loudly in order to “lead” the section. Such singers should be advised to lead by example, singing as if they were giving a demonstration lesson to the person on each side of them rather than trying to sing louder than the whole section.

For any choral conductor, it is very difficult to accommodate the strengths and weaknesses of each singer. If the singers in the choir for the most part are inexperienced, the conductor may use the piano as a leveling tool, playing the notes on the keyboard to assist those who read notes and rhythms slowly. Some conductors record the choral parts on cassette tapes for their singers to hear outside the rehearsal. Rehearsal techniques that depend heavily on the piano as a means of teaching the notes may foster inaccurate, nonlegato singing among the choir members, unless these issues are addressed specifically in other aspects of the rehearsal technique. Singers who learn their music by any form of passive listening are stifling their own musical growth. If a choral singer complains of vocal fatigue or hoarseness after rehearsals, the physician, speech-language pathologist, or voice teacher must consider the singer’s ability to sight sing and the methods for music teaching practiced by the choral conductor.

Just as solo singers “sing the music into their voices,” choral singers must teach the individual contours of melody and rhythm into their voices. The singing instrument runs by mental impulses that must be trained carefully. Time and patience are required if the voice is to learn to produce the pitch and the vowel accurately on each rhythmic pattern. Ordinarily,
The goal in healthy singing is the achievement of a flowing, legato line. Singing “on the breath” is the cornerstone of bel canto, or beautiful singing. In the papal choirs of the sixteenth and seventeenth centuries, the high art of bel canto singing was taught to young boys using exercises on vowel sounds only. Documents from the time indicate that the young singers were asked to demonstrate the steadiness of their legato singing techniques by singing a series of vowel sounds over a lighted candle. Each vowel sound was sung and a steady crescendo to decrescendo or messa di voce (literally, a measuring of the voice) was performed. A voice capable of making measured dynamic changes without disruption of the tone shows evidence of firm breath control and vowel purity. If the flame did not flicker, the voice was considered competent to execute consonant sounds and to endure the rigors of regular performance at worship.

Most voice teachers agree that the teaching of vowels should precede the teaching of consonants, establishing first the flow of tone before interrupting it with the articulation of consonants. Vocalises (exercises) are built from vowel patterns to which consonants are added gradually. The teaching of solo repertoire begins often by singing the musical lines on vowels to establish tone and manage breath support. Developed over centuries, these pedagogical methods have proven their worth in the achievement of healthy vocal technique.

Lack of vocal technique and the press of time too often preclude choral conductors using the vocal wisdom of the ages in the teaching of repertoire to choirs. In all too many choral rehearsals, the text is used as a tool for the eye of inexperienced singers. Choral singers, having based their membership upon a strong ability to imitate sound and memorize melody by ear, are generally novices in the area of rhythm. The rhythm of choral music is founded upon the rhythmic patterns of the text. In an effort to save rehearsal time, choral conductors often invite the choir to sing unfamiliar repertoire directly from the text. Those singers with less rhythmic skill can follow the words and avoid frustration. Oddly enough, some choral conductors will use this method even with repertoire written in foreign languages containing uncommon sounds and symbols. This common choral method invites vocal harm through its “seek and find” philosophy. Singers cannot sing healthfully unless the mind understands the vowel shapes on proper pitches in the right rhythmic patterns. Slow, careful learning produces healthy, confident singing. Several hours of frenzied singing in a choral rehearsal can compromise overall vocal technique and health. If students of singing experience mental and vocal fatigue after choral rehearsals, the voice teacher should inquire about the method of teaching of repertoire.

“Like learning a foreign language, sight singing improves with use. Incorporating some sight singing into every rehearsal will yield benefits.” There are many published and reliable methods for teaching sight singing to choirs, some of which have been cited already in this discussion.

**DISCIPLINE**

Choirs are drawn together by the charisma of the choral conductor. The conductor determines the nature of the organization, its goals, and its methods. A choir is not a democratic society, but a group of people governed by its leader. In some choirs, the discipline is very strict. In others, singers are allowed to whisper or talk at will. The level of discipline within the ensemble is of significance to the health and well-being of the individual choral singers. If the discipline of the choir is held firmly enough to produce effective results but flexibly enough to allow moments of relaxation, healthy singing will evolve. When discipline is lax, choral singers may abuse their voices. If the choral conductor has a tyrannical nature, a spirit of fear may pervade the rehearsal, creating unwanted tensions of potentially serious consequence to the voices.

**BREATHE GESTURE**

For decades, American choral conductors were taught orchestral conducting techniques. Adjustments to the choral setting were made on an “as needed” basis. Orchestral conductors rightly assume that each member of the orchestra has had private instruction on the instrument. Orchestras are organized by section with leaders who provide hints about the execution of difficult passages to others in the section. The orchestral conductor indicates the tempo and the character of the music with a single flick of the baton. Instrumentalists have trained themselves to respond to the signal and produce tone on demand.

The singing instrument requires considerably more time and a great deal more coordination to prepare than most orchestral ones. Singers must hear the pitch, imagine the vowel shape, and prepare the breathing...
mechanism. The coordination of this set of activities in choral music is organized by the choral conductor's breath gesture. Unfortunately, not every choral conductor has been taught this basic skill, since it is not always part of instrumental conducting technique (although it provides substantial benefit for instrumentalists, as well). Many conductors use orchestral conducting techniques, giving a downbeat and hoping for a choral sound. Unprepared, the singers grab for breath and produce tone. This method of creating choral music can be very harmful to the singer through excessive tension and forceful, poorly supported attacks.

**RANGE AND TESSITURA**

The selection of choral repertoire is a complicated process. Public choral concerts are expensive. The repertoire must appeal to the potential audience. In religious settings, the text must be appropriate to the event. Frequently, neither the disposition and skill of the singers nor the range and tessitura of the music are considered adequately. Choral conductors may attempt to balance the choral sound by asking certain singers to depart from their normal singing ranges and join the ranks of other sections. Baritones may be asked to sing in falsetto for extended periods to strengthen the tenor section. Sopranos who read music easily are often added to the alto section to ensure a harmonic balance. Altos may be asked to sing tenor parts. An occasional, gentle venture out of one's range is not necessarily harmful to a skilled singer. A long departure (such as a season) from the normal classification, however, can be very detrimental to the choral singer.

The range and tessitura of the repertoire have a significant impact on the comfort level of each singer in the choir. The range of a given vocal part may be reasonable. However, the tessitura, the range of notes in which the majority of the melodic material lies, may be at the extremes of the range. When choral singers are asked to produce voice in extreme tessituras for long periods of time, vocal fatigue or injury may result. Some choral conductors question the stamina of their singers, believing in prolonged full voice repetition as a means of strengthening the ability of the choir to sing at extreme tessitura. This practice is unwise and dangerous. It is more likely to cause injury than to build stamina.

**SEATING**

In the best of circumstances, the experience of singing together can fortify the body, mind, and spirit of the choral singer. In less favorable settings, choral experiences have an adverse effect of inhibiting vocal growth and confidence. Group dynamics affect choral singing strongly. The abilities of singers vary widely. Personality traits, musicianship skills, size and timbre of vocal gifts, foster competitive attitudes. If a choral conductor considers the personal, musical, and vocal capacities of singers when organizing the sections of the choir, choral singing can promote positive personal and artistic growth. A singer's instrument responds best in a relaxed and receptive atmosphere.

Unfortunately, many choral conductors take little note of individual characteristics, positioning choir members within a section by height or by seniority. Other choral conductors allow singers to arrange themselves. Usually, leaving group dynamics to chance creates conflict between weaker and stronger personalities, untrained and trained singers. Singers with less vocal gift or training may refrain from singing, sensing competition with singers of more ability or experience. These inhibitions cause physical tensions that could compromise vocal health. Choral singers should be seated based upon the qualities of their sound and skill, with weaker singers nestled artfully among stronger ones. This practice fosters a blended choral sound without intimidating the singers. Choral singing is teamwork. Every member of the choir must feel as if he/she is an important element of the musical organization. The choral conductor should encourage this attitude with a welcoming spirit and supportive tolerance.

**PERFORMANCE SCHEDULE**

Choral concerts are peak experiences. In preparation for performances, choral groups rehearse extra hours. Generally, choirs stand on risers, creating an uncomfortable elevation in somewhat claustrophobic circumstances. It is important to recognize the hazards for students of singing who participate in long rehearsals in cramped postures. Choral folders may contain several pounds of music. Singers in the back row may extend their chins to see the conductor who is placed many feet away. Conductors can (but often don’t) mitigate these problems through a few extra minutes of adjusting position and posture of singers on the risers. Singers also must be taught to conserve their vocal and physical energy during the week leading up to performance, if the choral performance experience is to be a healthy one.

The repertoire and type of accompaniment must be appropriate to the size and ability of the choir, if healthy singing is to occur. Choral conductors
and singers are ambitious musicians. Often the love of a particular work may override reason, setting up vocal or intellectual demands that pose perils for the singers. For instance, smaller choirs may aspire to sing Ein deutsches Requiem by Johannes Brahms with an orchestra, but might be better served presenting the work with its duo-piano accompaniment. It is important to advise students and choral conductors about the negative effects upon individual voices when confronted with overwhelming instrumental accompaniments. A cappella singing tends to be the healthiest form of choral music making, based firmly in the bel canto traditions; but healthy choral singing is possible with any ensemble provided the conductor and choir are trained properly.

**REHEARSAL TRADITIONS**

Until recently, singers were unaware of the detrimental effect of certain foods and beverages on the singing voice. Most choirs have associated singing with socialization, designing rehearsal routines around a coffee break or fellowship period. If the refreshments consumed during the break contain chocolate, refined sugars, caffeine, or citrus, the voices of many of the singers will be at risk for gastroesophageal reflux disease (GERD) in the subsequent rehearsal period. When students of singing complain of hoarseness in the latter portion of choral rehearsals, reflux could be one source of the distress, and thus a reason to be evaluated by a laryngologist.

**BENEFITS OF CHORAL SINGING**

A choral rehearsal can be an ideal forum for strengthening musicianship skills, vocal technique, and self-esteem. The singer has the opportunity to relax within the choral tone, participating in arching phrases of greater length than any single voice can manage. The student of singing can develop an historical context for the solo repertoire being studied in private lessons. Since smaller voices perform equally with larger ones, choral singing teaches acceptance and offers a sense of accomplishment. The goals of choral singing are different from those of solo singing. Cooperation in choral singing demands that singers contribute to the choral sound but never dominate it. Choral singers respond to the artistic demands set by the conductor. In solo singing, the individual vocal and interpretive traits of the singers are paramount. The teacher of singing is wise to train the student of singing to make appropriate adjustments in either context with comparable skill. The ability to do so (sing well in solo and ensemble settings) is a sign of technical and artistic vocal facility that is usually associated with healthy singing. There is nothing intrinsically "unhealthy" about singing in choirs, so long as solo singers who do so are trained properly.

**THE ROLE OF THE VOICE TEACHER IN THE CHORAL CONTEXT**

Ideally, every singing teacher would be affiliated with a choral organization, acting as a consultant on vocal matters whenever possible. In order to advise students wisely, singing teachers should be acquainted personally with the choral conductors within their immediate area. Solo singing and choral singing are compatible but different vocal activities. Teachers of singing and choral conductors must work together to assure the vocal health of students of singing.

**THE ROLE OF THE LARYNGOLOGIST AND SPEECH-LANGUAGE PATHOLOGIST IN THE CHORAL CONTEXT**

Laryngologists and speech-language pathologists who care for singers have important roles in the choral context. First, many medical professionals are enthusiastic singers themselves. Some are even trained in singing. Whether or not a laryngologist or speech-language pathologist is a skilled singer, it is helpful for medical professionals to participate personally in choral singing. If the medical professional is not a trained singer, the choral experience provides invaluable insights that assist in the evaluation and treatment of patients. In addition, the physician and speech-language pathologist should act as consultants for the choral conductor and choir members on matters of vocal health. The active participation of health professionals in a musical community fosters the kind of interdisciplinary collaboration among physicians, speech-language pathologists, singing teachers, choral conductors, and performers that is most likely to lead to effective voice building and healthy vocal performance. Good, secure choral conductors ordinarily not only welcome such collaboration, but moreover seek it out.

**NOTES**

Dr. Brenda Smith, a lyric soprano, teaches studio voice, singer’s diction, and voice pedagogy at the University of Florida in Gainesville, FL. With Dr. Robert T. Sataloff, she is the author of Choral Pedagogy, a textbook uniting voice pedagogy, choral conducting, and voice science. In 2000, Dr. Smith was the recipient of the Van Lawrence Award, a fellowship given by the Voice Foundation and the National Association of Teachers of Singing in recognition of achievements in voice science and pedagogy.

For nearly two decades, Brenda Smith was translator, collaborator and assistant to Drs. Wilhelm Ehmann and Frank Haasemann in Germany and the United States. She is the translator for their book, Voice Building for Choirs, available through Hinshaw Music, Inc.

Dr. Smith holds degrees from the University of Evansville, Westminster Choir College, and the University of Maryland, with additional studies at the Church Music Institute of Westphalia and the Hochschule für Musik und darstellende Kunst-Hamburg in Germany. Before joining the University of Florida faculty, she taught at Westminster Choir College, Dickinson College, Rowan University, and Manatee Community College.

REFERENCES


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"God respects me when I work, but He loves me when I sing."

RABINDRANATH TAGORE