

# Practical Teaching Ideas for Today's Music Educator

## CHOR TEACH



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Welcome to the fifth issue of ACDA's new online magazine for choral director/music educators who are searching for answers and need fresh ideas or techniques to meet practical needs. The articles below have been gleaned from state ACDA newsletters around the United States.

ChorTeach, our name, is derived from the German word for chorus, chor. It is pronounced, as most of you know, like the word, core. I hope ChorTeach's articles will be a breath of fresh air for you, provide you with a few ideas or techniques that give you a lift and help your singers reach the goals you and they have set. ChorTeach is designed for those of you who work with amateur singers at all levels.

Do you have a favorite article from a previous state newsletter you would like to share with colleagues from around the world? Scan it. Email it to me—Word format only. I'll look it over. Be sure to include the following information: state newsletter title, volume and issue number, year, title of the article, author of the article, your name and email address. Articles chosen for inclusion in *ChorTeach* can be reprinted only with permission of the parent state newsletter.

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## *A Cognitive Crescendo - How Music Affects the Brain*

by

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(Reprinted with permission of Indiana *Notations*, Winter 2007)

In the summer of 2007, I completed a sequence of three levels of coursework on Brain Compatible Teaching offered through my school and Indiana University Southeast. While the class itself did not focus specifically on music, two of the four instructors are practicing musicians. They brought to light recent research on how the brain reacts to music and how musicians of all ages benefit from participating in musical activities. This is a huge subject for current neuroscience research, and much information is published on the topic.

In this article, I offer interesting findings in the area of brain research as it relates to music. Though this will merely scratch the surface of the topic, I hope you find that science supports the notion that our passion for music is beneficial to our mental capacities.

There are a few basic principles regarding brain function that are necessary for understanding music's role in shaping the brain.

- **First, learning takes place when neurons are activated.** The more activation, the greater the capacity for learning. Musical activity engages millions of neurons.
- **Second, the principle of "use it or lose it"** is especially true of the brain. Learning becomes permanent when neurons make connections to other neurons. This occurs when new learning is employed. There are windows of opportunity for many intellectual functions, including learning to play a musical instrument, learning a foreign language, building vocabulary, developing spatial skills, etc. That is, there are optimal times in human growth and development (mostly from birth to puberty) in which the brain is equipped with a greater capacity to learn in these areas with ease; however, it is never too late to learn anything. The brain is malleable and can learn at any age.

- **Third, there is no musical center in the brain.** Musical involvement activates more areas of the brain than any other activity. The right brain is involved in the experiential aspects; the left brain is involved with the analytical, structural elements of music; the limbic system controls the emotional response to music.

*Music is innate.* Music has been a part of human life throughout all cultures in all times and is more foundational to our species than language. Identified by Howard Gardner as one of the eight multiple intelligences, Musical/Rhythmic Intelligence is present in every human at birth. Of all the intellectual capacities, none develops earlier than music. Even individuals with physical, mental and emotional disabilities possess musical abilities and can have meaningful musical experiences (Lazear 105-106).

*Music strengthens the brain.* Numerous studies in the past decade have confirmed that participation in music has definite benefits for the brain. Even listening to music has a positive effect on the brain, though not nearly as great as with music making.

- Listening to music stimulates the brain, increasing the neural connections.
- Participating in music enhances brain development and increases the brain's efficiency.
- Participating in music helps strengthen and maintain brain cells and connections that deteriorate with age—under normal circumstances.

Because music involves many different areas of the brain, growth resulting from active music participation is evident in several places. The brain's capacity increases during musical activity because synapses are strengthened and connections are built between neurons. Music making is thought by some researchers to be the most extensive exercise for brain cells and for strengthening synapses. Brain scans of musicians reveal that nearly all of the cerebral cortex is active during performance (Weinberger).

In studies of professional musicians versus non-musicians, researchers have found that professional musicians have up to 130% more gray matter (cell bodies, axons and dendrites responsible for processing information) in multiple areas of the brain than non-musicians.

- **Broca's Area**, the part of the brain associated with language, is one of those areas. Musical sight-reading is rooted here.
- The **cerebellum**, long thought to control only motor skills, is also larger in size in musicians. We now know that it is the seat of tempo and rhythmic synchronization, extremely important elements to musicians.
- Musicians who learned to play a keyboard or string instrument prior to adolescence reportedly have larger than normal areas of the brain dedicated to **touch perception**.
- The thick bundle of neurons connecting the left and right hemispheres of the brain, the **corpus callosum**, is significantly (5–15%) thicker in musicians than non-musicians, proportionate to the age at which musical training began. This is due to increased inter-hemispheric traffic resulting from music processing. This strengthening of the communication system makes the brain more effective and efficient (Harvey).

*Music enhances cognition in general and specific ways.* There are strong connections between music and the development of language. Multiple researchers have examined the relationship of musical training to verbal skills, finding that many language processing areas in the brain are also involved in musical processing.

Physically, the areas of processing for both music and speech (the frontal and temporal lobes) are very close together and actually have overlapping connections (Levitin 125-127). It is evident that children with musical training exhibit better verbal memory skills than children without musical training. The degree of verbal memory improvement appears to increase proportionally to the length of musical training,

and the effects are long-term, as the benefits to verbal memory gained from the musical training are maintained even after instruction has been discontinued (Ho).

A 2005 study at Stanford University showed that musical training increases the brain's capacity to process subtle differences in word syllables. Since these fine distinctions are often the source of a child's reading or speech difficulty, incorporating musical training may help overcome those obstacles (Sturrock).

Musical training aids in the development of spatial-temporal reasoning, a foundation for mathematic success. The popular "Mozart Effect" research brought the neuro-musical subject into the public eye, but does not actually have the credibility to match the hype it received, due primarily to the fact that the achievement improvements were short lived. However, numerous studies have since established stronger correlations between instrumental music study and abstract reasoning skills.

According to Dr. Gordon Shaw of the M.I.N.D. Institute, which developed a research program using an integrated music and math curriculum with elementary children, "...music seems to tap into this internal neural structure we're born with, activating regions of the brain that are responsible for our ability to think in pictures." The effects are long-term (Armitage).

In his 2006 book, *This is Your Brain on Music*, Daniel J. Levitin explains that music training improves our ability to "discern structure and form in music" and confirms that even a small exposure to music lessons in childhood builds "neural circuits for music processing" that are more efficient and developed than for those without training (Levitin 190).

*Music has lifelong benefits.* While the "windows of opportunity" for optimal brain development end before or during adolescence, the ability to learn is always there. It may take more practice and desire to make the new learning stick, but the brain can continue learning until it dies. It is clear that some neural deterioration occurs through normal aging.

The brain continually prunes away what it is not using, trying to maintain efficiency. Musicians who continue practicing and performing through adulthood, show little reduction in gray matter and, in fact, often show growth through their thirties and forties as compared with non-musicians (Radford).

*Right Brain, Left Brain or Whole Brain?* For years, music has been thought to be a right brain activity, implying that there is a specific area in the right hemisphere of the brain that processes music. While

the right brain does process rhythm patterns, timbre, harmonic function and emotional responses to music, the left brain is also involved.

Analytical and formal structures are processed in the left brain, as well as stylistic and artistic elements. In fact, active musical participation, perhaps more than any other activity, engages more parts of the brain and encourages the two hemispheres to work together effectively and efficiently. Levitin puts it this way: "...musical operations become bilateral with increased training as musicians coordinate and recruit neural structures in both the left and right hemispheres." (Levitin 220). Clearly, music is a "whole brain" activity.

Most musicians would agree that their involvement in music has yielded benefits beyond the intrinsic rewards that need no explanation. It is refreshing to know that scientists not only acknowledge the physical and mental benefits of music, but that they have determined that music is so important to cognitive development and efficiency that it should be encouraged in every person.

#### Quotes

The functional architecture of the brain honors music as much as it honors language

— Norman M. Weinberger,  
Center for the Neurobiology of Learning and Memory

Music will not only help us understand how we think, reason, and create, but it will enable us to learn how to bring each child's potential to its highest level

— Gordon Shaw,  
Co-Founder and Chairman, M.I.N.D. Institute

The story of your brain on music is the story of an exquisite orchestration of brain regions, involving both the oldest and newest parts of the human brain, and regions as far apart as the cerebellum in the back of the head and the frontal lobes just behind your eyes.

— Daniel J. Levitin,  
*This is Your Brain on Music*

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The greatest homage we can pay to truth is to use it.

— Ralph Waldo Emerson

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## *Keeping the Main Thing, the Main Thing*

by

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(Reprinted with permission of Kansas *Choral Range*, Vol 29, No 1 Spring 2008)

In the days before online registration and when the term, software, didn't exist, I discovered college registration to be an arduous process of moving from one long line to another. I've often joked that the reason I declared music education as my major was because it was the shortest line when I approached the registration area as a college freshman. I had other things to do besides stand in a long line!

Assuming this was the depth of thought that launched a forty-year career in public education, it would also be reasonable to assume there was a plethora of learning that took place, especially in those early years of teaching. So, after a career in music education that was launched because of a short registration line, what would I do differently if given another opportunity? Be aware: never underestimate the scope of a teacher's influence on his/her students.

First, some background. After that first decade or so of teaching, I began to discover that my recollection of professional experiences centered on things like memorable performances, wonderful choir trips, the choral groups of students with special talent or chemistry, and students' success with challenging literature. But I learned that former students were recalling other things as well.

The most notable recollections students reported to me were statements I made in rehearsal or to individuals personally. More often than not, I could not recall making any of the remarks attributed to me. Yet when pressed, some students went on to say that these comments had a life-changing impact on them. Gulp! Admittedly, "life changing" was exceptional; however, I began paying more attention to these obscure but meaningful teacher/student encounters. Be aware: never underestimate the scope of a teacher's influence on his/her students.

Although it was first published nearly twenty years ago, Stephen Covey's *Seven Habits of Highly Effective People* continues to make a significant contribution in assisting professional people in re-thinking their approach to "work." It wasn't until I became acquainted with Covey's ideas that I began to synthesize and garner understanding of what had been happening in my professional encounter with students.

Those familiar with Covey's *Seven Habits* know that all the habits combine to form an ecosystem of behavior. As he describes each

habit individually, he defines Habit Three, for example, as the habit of personal management with this concise definition: "The main thing is to keep the main thing the main thing." And that was the jolt I needed to facilitate my return to the thinking that attracted me to the profession in the first place.

I needed to adjust my personal management routine to remember the "main thing." I no longer had to wonder if I was making a difference in student lives, rather I was put on call to remain mindful at all times not to miss the opportunities to make a difference. Be aware: never underestimate the scope of a teacher's influence on his/her students.

During a recent conversation with a university faculty member who is presently teaching courses in career education, at my request he identified some of the current issues in education. Among other things, he mentioned achievement gap, school funding, teacher shortage, class size, school safety, accountability, and testing. As the conversation continued I was struck by what was not being said. Not once did the concept or importance of meaningful teacher/student interaction ever emerge as an issue to consider.

On another unrelated occasion, I was engaged in a casual exchange with two undergraduate students. Out of the blue, I asked if they had a favorite teacher when they were in high school. When the response was the anticipated "yes," I then asked what made this person their favorite teacher. Again, the response was what one might think. They identified traits like knowledge of content area, good teaching skills, and the ability to hold the interest of students.

But then our conversation went to a deeper, more personal level when one of these students shared the fact that her favorite teacher was someone who took a special interest in her beyond the context of the classroom. She never had contact with this teacher outside the normal school day, but as she went into a detailed description of this teacher, the student employed the terms "trust" and "admiration." Be aware: never underestimate the scope of a teacher's influence on his/her students.

Have we become so entangled with No Child Left Behind and its various sequels that our profession runs the danger of losing focus on why we're here in the first place? No Child Left Behind has heightened public awareness of important issues, and even if our attention to them was not mandated, they would be worthy of our serious contemplation. However, we must guard against those issues becoming distractions from "the main thing": the meaningful interaction between teacher and student.

Goethe, an important cultural figure in nineteenth-century Germany, wrote, "Things which matter most must never be at the mercy of things which matter least." The things which matter most in the

classroom are the students. We teach them about life, and we do it through choral music.

If the ever-important component of meaningful teacher/student interaction is lacking in a modern school with all the latest features of building design, curricula, and technology, but is present in a third world country with no educational materials beyond a shade tree and a stick in the dirt as a dry erase board, I'm betting on the shade tree environment as the more significant school experience for the students.

Teachers must not allow themselves to be distracted from "the main thing" of teaching while consideration is directed at other issues in education. This requires constant vigilance. I'm confident that career music educators now in their first decade of teaching will have discovered new and seemingly insurmountable professional challenges by the time they reach their third decade, but the central focus of their business, teaching/nurturing students, will not have changed.

Important note: The story about a short registration line being the determining factor in my selection of a college major was completely fabricated. The fire and passion for the choral art was ignited in me when I was in the ninth grade. I knew what my major was going to be long before I went to college. I became a choral teacher because of a particular choral teacher, and I know it's the same for most of us.

Choral teachers may have few students follow them into the profession, but far more lives are influenced through daily meaningful interaction between a caring and highly competent teacher and his/her students. Yes, we must continue the pursuit of pedagogical perfection, but we must not stop there. Don't you agree?

Be aware: never underestimate the scope of a teacher's influence on his/her students.



## *Where Have All the Altos Gone?*

by

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(Reprinted with permission of Texas *Sings*, Vol 25, No 2 Winter 2009)

I loved my fifth and sixth grade music teacher, Mrs. Richardson. She was energetic and passionate about music, and she always seemed to pick songs I loved singing. Truly, I can still sing many of the songs she taught us, word for word, note for note.

She frequently told us what a good class of singers we were and that we were among the best two groups she had worked with in her entire career. I thrived on the idea of beating the other group and winning first place in Mrs. Richardson's heart. She gave us treats when we behaved, reprimanded us when we deserved it, dressed in special sparkly sequin outfits for concerts, and ignited an eternal flame of passion for singing in me.

As my sixth grade teacher, Mrs. Richardson was the first person who labeled me as an alto. Since I was studying piano, I could read music and hold a harmony part (basic requirements for being an alto), but I also loved singing low. I wrinkled my nose at notes that went above the second space on the staff and protested that they were too high.

This did not really make much sense to my mother, a soprano, or my father, a tenor. I think this preference for being an alto was simply a sign of the times. It was the 1970's and, contrary to popular generalizations, the decade was not all disco music, bell-bottom pants, self-portrait-of-the-composer-and-denim-covered music, and Ruth Artman stick-figure choreography.

It was also the decade of the alto, a time when Karen Carpenter, Anne Murray, and Toni Tennille were celebrated as goddesses of the airwaves. Like their low-voiced predecessors Patsy Cline and Peggy Lee, these women gave us rich, low melodies with an open, warm sound that as young singers, we loved and imitated. What Muskrat Love didn't teach me about the birds and the bees, it taught me about alto tone.

Any girl worth her salt could heartily sing along with *Rainy Days and Mondays* or *I Won't Last a Day Without You*. But where have all the altos gone? Turn on the radio today and you are doing well to find an actual melody, much less singing tone worth emulating. The country singers are whining through their noses, the R & B singers are embellishing so much that melody is indefinable, and pop singers

are so distorted by electronics that I'm not sure any of them can actually match pitch.

Singers do not come to us as blank slates upon which to write. Just ask any group of kids to sing Happy Birthday or Rudolph the Red Nosed Reindeer and you will get a big dose of what vocal habits are already built into their muscles. Family and cultural experiences play into singers' tendencies and preferences, ability to match pitch, and certainly the ability to hear a harmony part.

As we begin the formal training of our singers—no matter what their ages, we do not begin with students who are in the same category as those who come to the band director as beginners. He/she instructs them on how to put the instruments to their lips for the first time. A band director builds a player's concepts and habits from day one. However, we take young singers whose vocal sounds are already formed through listening to their I-pods for years. Our singers' models for listening are often far from what we want in healthy voice production.

No matter what age you teach, your goal should be to help develop healthy singers – period. Since many of us leave college with little or no vocal pedagogy other than what we learn in our private voice lessons, our preferences and knowledge (or lack thereof) can hamper our singers if we are not mindful of our own shortcomings.

Since I was labeled an alto at a young age, I was stuck singing in the bottom range of my voice. I did not learn to use my head voice efficiently until I was in my late teens. So, as a card-carrying member of the Hairy-Chested Alto Club, I have always worked to make sure that my preference for ledger lines below the staff doesn't keep me from teaching a healthy approach to use of the head voice all the way down through the lower range.

Bringing the head voice downward on descending patterns helps teach singers to negotiate their middle range without bringing the chest voice up too high. However, at the bottom of a singer's range, warmth, openness, and a focused sound can occur when the air continues to flow, the tongue stays forward, the soft palate stays lifted, and the vocal mechanism remains unencumbered by tension.

Chest voice is not evil, and singing "low" needs to be developed and taught. Teaching singers to use only one part of their voice efficiently is depriving them of their full potential and, ultimately, what they can achieve with their voices over a lifetime of singing.

Teaching all singers about the use of their voices in all registers is the key to healthy development, no matter what the ages of the singers. Your kids can be stretched at both ends of the vocal range through exercises that will develop flexibility, warmth, vibrancy, and ease of register shifts.

During my undergraduate studies, I was introduced to the work

of Frauke Hasseman, longtime assistant director at Westminster Choir College. I found her exercises for voices to be extremely helpful. With Wilhelm Ehmann, she co-authored *Voice Building for Choirs*, a handy paperback full of vocalises for choirs.

In addition, I am grateful to James Jordan for his work in organizing more of her ideas into the book, *Group Vocal Technique*. While there are dozens of books on the subject of vocal pedagogy, this particular book gives choral directors practical information and vocalises to assist in the teaching of healthy singing.

Approaching the first five to ten minutes of a choral rehearsal as a group voice lesson will develop our singers far better than meaningless repetitive warm-ups. Give serious thought to what you can accomplish in that time to develop your singers' vocal range and technique.

Developing and encouraging singing in all voice ranges draws a more complete picture on the mental slate of our singers rather than a narrow tunnel of vocal limitation. As teachers, we should create a sense of pride about singing any part – not just first soprano or tenor. Help each singer celebrate his or her entire voice, not just the high notes!

ALTOS RULE!




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## Friends

Forgiving  
Reassuring  
Interesting  
Empathetic  
Nice  
Devoted  
Sincere

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## *Programming for Choirs is an Art*

by

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(Reprinted with permission of California *Cantante*, Vol 20, No 3 Spring 2009)

It was the highlight of my year to have my concert choir selected to sing at the February 2008 ACDA Western Division Convention in Anaheim (CA). Many people commented on how pleased they were with the literature we performed. I must admit I spent a great deal of time selecting the six works we presented for this event. My impetus to focus on good programming was due to some past experiences attending conferences and hearing great choirs that sang extremely well but didn't "shine" because of poor programming. Those choirs tended to sing music that was too homogenous and lacked variety.

I approach the selection of repertoire like a visit to a good buffet line: not too much that's spicy, not all carbs, definitely not all sweets, but a balance of tastes and flavors for the palette. I believe one of the biggest mistakes in programming music for a choir is choosing too many songs that are alike, songs which lack sufficient variety and balance for different musical tastes found in ones audience (and the performers).

### Things to consider

1. The tastes and appreciation level of your audience
2. Varying genre and styles, including various historical eras where possible
3. Using unique and/or unknown works thus exposing both your singers and the audience to something different
4. Developing "themed" concerts, e.g., songs with a winter theme, songs by women composers, or music from other cultures that also includes unique instruments
5. Variety—in tempo, accompaniment choices, and styles, etc.

When programming for a concert, I almost always choose my song order by tempo and mood. I think it is best to model this after the

sonata allegro form we learned in music history/music theory classes. I usually start with a work in a moderate tempo, a piece that isn't too terribly difficult to sing, generally guaranteeing success for the choir. This work should receive a positive response from the audience. Then I increase the complexity of the songs, challenging the choir to increase its performance potential. I then bring in my toughest piece—something slower and meatier, again challenging both the choir and the audience. And finally, I finish with something which is loud, fast, and furious—something almost sure to bring the audience to its feet. Well, okay, once in a while I throw a curve ball and finish with a sentimental tear jerker, but we generally receive similar positive results.

For the choir's Western Division ACDA performance, I created six separate folders with a wide selection of songs in each. I separated the music not only by type but also where in the program it might best appear. My thought was to open with a double-choir piece from the Renaissance or Baroque. Next, I wanted an obscure, slow, challenging "jewel" followed by something that was foreign and contained lots of rhythmic interest and included percussion. Then, I hoped to find a work that was relatively new and which most of the audience wouldn't know. I followed this with an a cappella, pseudo-pop piece that would be challenging for the choir and would stretch them to the fullest possible degree.

Finally, I wanted to close with a lesser-known, high-energy spiritual, ending the concert with a bang. It was difficult to narrow all of the pieces down to only one per category. Initially, I wanted to choose my absolute personal favorites, but in the end, I selected songs that would hold the interest of the choir and the audience. I believe my final choices lead to a well-rounded, even exciting, program. I hope that the ideas presented here inspire you in the selection of music for your next concert. The time you invest in searching for music will pay big dividends for your singers and your audiences.



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Character cannot be developed in ease and quiet. Only through experience of trial and suffering can the soul be strengthened, vision cleared, ambition inspired, and success be achieved.

— Helen Keller

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## *A Choral Director's First Task*

by

Charles Chapman  
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(Reprinted with permission of SWACDA *Common Times*, Vol 27, No 3 Spring 2009)

Each year I am fortunate to be asked to judge many choral contests. I have enjoyed this important educational exercise for more years than most of you would believe. I hear marvelous choirs so well taught that their performances often touch me deeply. But I also hear many choirs who have been well rehearsed in correct pitches, dynamic effects, and even style, yet who have apparently never been told that they cannot sing a good choral ensemble tone with the acoustic/vocal shapes they currently use. In my opinion, loud/soft contrasts and phrasing nuance cannot overcome, excuse, or mask ugly singing tone.

The *laissez faire* style of teaching in regard to tone seems to me to omit the second, and most important, step of the first day of a choir's rehearsal. The basics of breathing technique probably should be the first thing we teachers address, along with posture. Breathing is important, and the techniques must be pursued repeatedly, sort of like guerrilla warfare. But that vital element is not the end of vocal pedagogy—the breath is already working.

Talking incessantly only about breathing is the first refuge of the vocal/choral clinician or teacher who doesn't know what else to say—and I believe there are many of them! In clinics we often accept breath pedagogy overkill as being somehow pure teaching. We nod seriously at such comments as "Until the breath is correct, I don't let them sing songs." I'll talk about the breathing cult in a later column.

I am convinced that many of our choral conductors have too little information about how the human vocal tract can be trained (altered) to produce sounds different from those so-called "natural" sounds the students bring to class the first day of the year. We have all attended many "Emperor's New Clothes" placement clinics where the clinician will move singers within the chorus to "correct" blend or balance problems. The clinician moves the singers then looks triumphantly and expectantly at the seated conventioners, who usually dutifully smile at each other and say, "Oh, that is SO much better." I believe that if Phyllis sings too bright a tone for good choral blend, moving her some place different makes little difference in the ensemble's sound. She still sings too brightly and that fact militates against good choral blend.

Excellent soloistic tone is not always good choral tone. Singers need to learn how to change the way they sing to conform to the

desired choral unison. This training will NOT hurt their solo techniques. (Private teachers—relax!) The human voice is infinitely flexible for those with healthy instruments.

A good friend of mine had a big operatic voice from the time of puberty. Both in high school and throughout most of her university training, she was not allowed to sing in choral groups. Finally, a university conductor taught her to change her natural production to blend and balance with the other singers. She was overjoyed. She thought there was something wrong with her voice, when she should have been taught to sing differently but still in a healthy manner while in choir.

This need to change the quality of the singing tone is more crucial to small and medium-sized choirs with fewer professional voices than it is to larger or strictly adult professional singers. Training has a way, for most of us, of leavening aberrant vocal characteristics that might hurt choral ensemble singing. Volunteer church choirs are the best example of this. Volunteer, often geriatric, tone is trainable, but the process is difficult. Most church choir directors seem just to leave it alone or expel the problems.

What exactly do we choral directors have to change about singers' voices? The answer is to change the physical shapes of most of the vocal resonators. This means changing the vocal tract, beginning just above the vocal folds—the epi-larynx, a term coined by the famous laryngologist, Ingo Titze—and continuing through the upper throat, the mouth (jaw), and the lips.

Unfortunately, it seems that most of our Southwestern Division speech dialects are uttered through these spaces in their most collapsed configuration. Many of the untrained singers in SWACDA could probably move immediately into successful careers in ventriloquism! Of the areas named above, the epi-larynx is most crucial and the most ignored.

The quality of a musical tone is determined by two physical characteristics, the wave form generated by the vibrator and the shape(s) into which this wave form progresses. This dictum also includes the acoustical characteristics of the hall into which the choral tone moves, which is a tertiary resonator (or damper) for all sound.

Altering vocal fold action requires careful, mostly indirect, training (yet another long discussion). This process is usually protracted. The choral conductor is, in most cases, better served by altering resonator shapes, the changes of which are mostly visible, mostly directly adjustable, and may even be silently cued during performance, when [o] shapes begun by singers begin to turn into smiles.

Shape is even more important for those conductors who have chosen ruthlessly straight (non-vibrato) tone production. (yet another article?) Straight tone often tunes well and is very controlled, but so-

pranos and tenors singing in upper ranges without modification of the vocal tract shapes often emit sounds that will kill birds! If the straight tone is not well-tuned, it can be an unpleasant listening experience.

Straight tone is most at home in reverberant rooms. The reverb tends to modify some of the inherent siren effect of a tight, straight, high "A." I believe the rise of popularity of British conductors as clinicians in the United States is responsible for the fad of singing everything, even Brahms, with straight tone. If straight tone is not mitigated at forte levels and in higher ranges, it is not pretty—my opinion, of course.

There isn't room in this article for a complete list of what must be done to every singer to obtain optimum blend and balance in a choir. I urge you to listen objectively to recordings and to watch DVD's of your groups. Objectify the process. Pretend the recordings are performances of your ensemble's best competitor. What can you say about the tone of your choir that is negative, yet true? In our division, there is rarely a singer with a good natural voice. "Natural" is either country-western caterwauling, gospel shouting, or white, insipid tone.

Teach your choir singers to sing vowels alike. Teach them first to sing a well-shaped [o]. Look at how many of them aren't even rounding their lips! Then go from there. Be creative. Read in depth about the voice, vocal pedagogy, and choral pedagogy. Take voice lessons. Your investment of time will be worth it.

