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# Foreword

by Anton E. Armstrong

Dr. Lynne Gackle has been hailed as one of the pioneering and authoritative conductors and research scholars on the subject of the female adolescent voice. In *Finding Ophelia's Voice, Opening Ophelia's Heart: Nurturing the Adolescent Female Voice*, Dr. Gackle has assembled and updated her ground-breaking research to create a most comprehensive monograph. Noteworthy is the depth and breadth of her research as she studied some hundreds of young female singers in compiling her findings. This book finally provides vocal music educators and voice pedagogues with an objective and thorough study of not only the physiological but also the psychological and musical development of the young female singer.

The first part of this study presents Dr. Gackle's extensive findings regarding the maturational effects on the adolescent female singing voice. In Chapters 1–4, readers will find the most complete study of the adolescent female singer available today. The publication of this material is a major achievement, in that extensive studies have been devoted to the maturational evolution of the adolescent male singer, but little research, if any, existed in analyzing this same process in the adolescent female voice. In these chapters, Dr. Gackle discusses specific issues related to the training of the adolescent female voice, including its anatomical structure, classification, and training as well as a discussion of appropriate literature selection and teaching strategies for a successful choral/singing experience. This material is presented in concise, yet comprehensible language with invaluable information for pedagogues of all ages and years of experience.

Yet, what I find most distinctive about this study is the focus Lynne places on the psychological development of these adolescent female singers and the subsequent impact on their musical growth as singers and women. In reading Dr. Gackle's work I was truly enlightened by the information that was revealed as she examined the topic of adolescence, singing, and self-concept in the adolescent female singer. I must admit that I am guilty of not being as consciously aware of the myriad of issues that impact our female singers in this often turbulent period of their maturation.

As her research strongly suggests, directors often take for granted the fact that we most often will have an abundance of female singers in our ensembles. Further, because they are less responsible for behavior issues in the ensemble rehearsals than their male counterparts, and because they don't often demand our attention in the same way that perhaps our often-

smaller male populations do, both in areas of pedagogy as well as deportment, we can even begin to take these singers for granted. The corresponding behaviors may, themselves, create a sense of favoritism for the males. As I concluded my reading of this informative study, I was more keenly aware of the various societal pressures that can negatively impact the psyche and musical/vocal development of young women in our ensembles.

I fully resonate with Dr. Gackle as she states in Chapter 6:

*At one point in my career, if you asked me what I “did,” what my occupation was, I would have said, “I teach music!” Now, I now am quick to say, “I teach people. Music is just my medium!”*

*We have the opportunity to touch these young people for a short time, to help facilitate their growth as more-complete human beings. Hopefully we will help them to improve their singing. Yes, we also want to encourage their growth musically and artistically. But there are situations and circumstances afforded us as choral educators which are not readily achievable within the context of the math classroom or the science lab.*

It is this perspective that distinguishes Lynne Gackle in so many ways as a vocal music educator. While she is an advocate for the finest and most comprehensive teaching pedagogy for all students, she clearly understands the need for more enlightened insight with solid pedagogy to address some of the particular needs of young adolescent female singers. Dr. Gackle fully appreciates the art of music, and choral music in particular, for its own rich and beautiful aesthetic values. However, she comprehends profoundly the incredible transforming influence choral music can have in shaping the lives of young women. This is beautifully realized and documented in Chapter 6 in the moving words of young girls and women currently in their thirties and forties whose lives have been so profoundly impacted by their choral music experiences.

In this most-needed monograph, Dr. Gackle has not only given us long-needed quantitative pedagogical research on the young female singer, but provided us with a unique perspective to teach not just an “instrument,” but to foster the development of the whole person. Truly, Lynne Gackle is the exemplar of the servant/teacher who seeks to not only shape beautiful singers, but more importantly to develop vocally free, emotionally healthy, compassionate, and beautifully expressive young women through the medium of choral singing in “Body, mind, spirit, and voice!”

—Anton E. Armstrong, DMA

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## Chapter 2

# *Finding Ophelia's Voice*

The developmental phases of the female voice

As discussed in the previous chapter, far more study has been done regarding the male changing voice than the female. This holds true when we consider the attention paid to classifying and ultimately longitudinally monitoring an individual boy's voice through puberty.<sup>1</sup> While not a true longitudinal study, my time with the Miami Girl Choir gave me the unique opportunity to work with the same girls from age nine or ten through their middle teens. My work, though empirical, had a longitudinal dimension as I began to see predictable patterns in the vocal development of the young girls in my choir over time. The longer I observed the girls, the more the stages of change became apparent to me. As I began writing about my work with these voices, however, I started to think of this framework in terms of phases of change rather than stages due to the gradual nature of the change process over time.

Characteristics of each phase are outlined in this chapter, along with suggestions for how to work with and place these developing voices, but it is the examples on the DVD that best illustrate what these young women are experiencing and how we, as directors, can help determine in which phase they are currently.

### **Phases of Female Adolescent Vocal Development (Mutation)**



Just as the difference between two colors from the color spectrum is usual easier to perceive than the difference between two shades of the same color, the changes in the boy's voice are very obvious to the ear, whereas the changes in the girl's voice are not nearly as dramatic. Rather, they are more subtle and perhaps a little less obvious to the listener.

<sup>1</sup> Dr. John Cooksey is the person most associated with the study of the male changing voice. He has earned this distinction from his series of articles that have become a classic reference tool for those working with male changing voices as well as from his participation in research that culminated in the creation of an Index of Voice Classification along with a five-stage process of voice maturation.

They also don't present the tumultuous challenges within the choral scenario that changing male voices do. Does this mean that the girl's voice is void of challenges? That the young female can simply go through vocal change without concern to development or training? My own personal experience as well as those of countless colleagues has proved that the answer to these questions is an emphatic "No!"

All directors need to embrace the challenge of working with the female voice, and they need tools to help. Realizing that the voice change in females is very gradual and, at times, difficult for the untrained ear to perceive, I have begun to think of it happening in phases rather than stages. These phases are outlined in the following pages and provide a framework for the vocal development in females.

A few definitions and comments for clarity's sake:

- ❖ Speaking fundamental frequency is labelled with the abbreviation SFF. (Note that in other publications you may find it abbreviated as SFo). The acceptable limits for SFF given here are from research, most notably Wilson's *Voice Problems of Children* (a text often used in the field of speech pathology) and do not necessarily reflect efficient use of the voice in speech.
- ❖ A key to the pitch labels used for SFF is provided on page 180.
- ❖ *Tessitura* is defined as the range of pitches most easily and freely produced within the total vocal range.
- ❖ Voice quality is determined by the perceived color, weight, and overall timbre of the tone.
- ❖ Chronological ages are given as general guides and should not be used as definitive indicators of a phase of change.
- ❖ As fits with my own beliefs, assigned voice parts for all adolescent girls' voices are classified as Soprano or Mezzo-soprano, using the traditional sense of the words.
- ❖ For the purposes of the present discussion and as voices are placed within this framework, the term classification will be used to refer to specific phases of vocal development. So often when we think about classifying voices in the choral setting, we often think of assigning individual voices to a specific voice part. Again, that is not the case here.



1.7

## Phase 1—Prepubertal: Unchanged



**SFF:** C4–D<sup>#</sup>4; 261–311 Hz (Acceptable limits: A3–F4; 220–349 Hz)<sup>2</sup>

### Vocal characteristics

- ✦ Clear/flute-like quality
- ✦ Much like the boys' voice at this age
- ✦ No obvious register breaks
- ✦ Flexible/agile

**Assigned Voice Part:** Soprano I

**Ages:** Up to ages 8–10 or 11. Depending upon other physiological changes (i.e., breast development, menarche) this stage could continue through age 12.

<sup>2</sup> The hertz equivalents, which have been rounded to the nearest whole number, were derived using an online tool developed by the Physics Department at Michigan Tech University. <http://www.phy.mtu.edu/~suits/notefreqs.html>

This exercise increases range by using a pattern which encompasses more than an octave. If, however, an emphasis is placed on articulation and the use of both a staccato and a legato type of vocal production, its focus can be more on agility and flexibility. In another context, this exercise could be used to encourage articulation of the breath and breath/tone connection.

## Agility and Flexibility



Agility is the ability to sing disjunct intervals in quick succession. Flexibility refers to the ability to move from pitch to pitch with ease and often in quick succession. Because greater flexibility can be achieved through the use of breath-management techniques for articulation and consistent use of the breath, many of the same vocal techniques that encourage phonation throughout the vocal registers may also be used to focus on these elements.

For example, several goals can be accomplished using the “I love to sing!” exercise that follows. It is a wonderful exercise which encourages agility and flexibility as well as range extension, emphasis on pure vowels, and connection and management of the breath through the phrase.

[ai]      l[a]v      t[u]      s[in]  
*I      love      to      sing.*

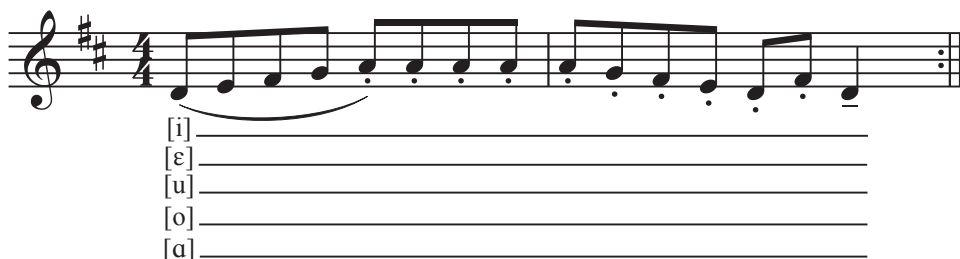
In this exercise, the kinesthetic use of the arms helps to connect the breath and the voice and to free the tone. Bring the arms out from the body to shoulder level on “I” and then immediately bring arms downward and in toward the body, making circles which cross in front of the body, on “love to sing.” Be sure that students sing a pure [a] on the “I” and encourage them to avoid spreading the vowel to the [i] of the diphthong. Also, have the students use the tip of the tongue to produce the [l] of “love,” always stressing pure vowels: l[a]v t[u] s[in].

Other exercises for agility and flexibility include:

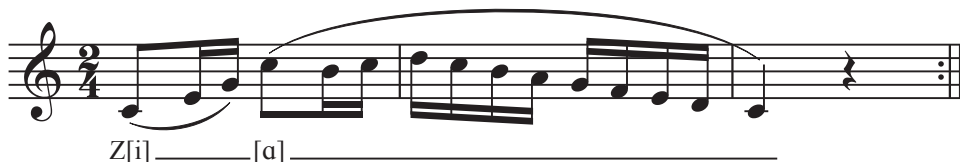
[i]  
 [ε]  
 [u]  
 [o]  
 [a]

The tempo of this warm-up should get progressively faster, starting with quarter note equals 92 and moving through 104, 112, and 120.

For continued agility and increased articulation, perform this warm-up again at the original tempo of quarter note equals 92 but with the articulation change notated below.



Agility and flexibility are the chief goals in the following exercise. If emphasis is placed on [z], the voiced consonant that has pitch, it could also be used to improve resonance of tone.



Ultimately, all of these exercises can be used to accomplish many goals. It is the responsibility of the conductor/teacher to focus the student on the goal at hand and ultimately to incorporate several techniques into one. This is another reason why using vocalises derived directly from the music is so beneficial!

## Tuning and Improving Intonation

Vocal exercises may also be used to encourage good intonation. One of my favorite exercises to this end is singing a scale in harmony. Start on a D<sub>4</sub> or E<sub>4</sub> and sing on solfège as a group and at a tempo of quarter note equals 92 a major scale in unison. Listen and work for unison on the pure vowels, paying particular care to the areas of the half steps both ascending and descending, since this is where pitch often suffers. (This will help train singers to listen carefully to these steps and anticipate intonation issues.) Then, divide the group into two sections and perform the scale as a round, with one group starting and the other entering two beats later. Divide the group into three or four sections and do the same thing. (Playing the tonic octave at regular intervals in the process helps singers stay focused on the tonal center.)

Triad tuning is another effective intonation exercise:

1. Start with a major triad using an [u] vowel.
2. Have the first Sopranos move up a half step to create an augmented triad.