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A MODEL OF AN EFFECTIVE APPROACH TO
STUDIO VOICE AT THE UNDERGRADUATE LEVEL:
THE VOCAL METHOD OF DR. RAQUEL CORTINA

by

Kathleen Gorman Westfall

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Musical Arts

May 2012

ABSTRACT

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In her forty years of teaching voice at the college level at the University of New Orleans, Dr. Raquel Cortina has developed a method and process of teaching that yields exemplary results in her students. This study will provide a detailed description of her methods, her process of teaching, and the way she communicates information to her students. It will also provide a model for teachers of classical voice at the undergraduate level. The aspects of her method included in this study are limited to breath and support, resonance, issues with register, articulation, and musicality. A context of Cortina's methods within the world of vocal pedagogy will be included throughout the document as her methods of teaching are explained. The appendix includes a written transcript of an interview with former students of Cortina's who discuss Cortina's methods, her effectiveness as a teacher and her pedagogical beliefs.

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CHAPTER I

INTRODUCTION

Purpose of the Study

In her forty years of teaching voice at the college level at the University of New Orleans, Dr. Raquel Cortina has developed a method and process of teaching that yields exemplary results in her students. This study will provide a detailed description of her methods, her process of teaching, and the way she communicates information to her students. It will also provide a model for teachers of classical voice at the undergraduate level. Cortina's main pedagogical belief is that the process of teaching begins with information that students already know and then builds with the addition of unknown information. This study will illustrate the way she applies her philosophy of teaching from "the known to the unknown" to her teaching of selected aspects of vocal pedagogy.¹ It will also describe the way she teaches anatomy and uses anatomical information in her practice. Her ability to communicate and teach the more difficult pedagogical concepts (such as diaphragmatic-costal breathing) with a more simplified approach will also be described. Additionally, Cortina's process of questioning the students to assess their degree of understanding will be included. The study will provide an in-depth look at her practice of teaching technique alone for the first portion of every semester, and her use of teaching tools (such as the soft elastic band, recording device, and mirrors). The section on vocalization will include the regimen of exercises she assigns to undergraduates, and the way she teaches technique through repertoire and then eliminates vocalization during

¹Raquel Cortina Interview. August, 2011.

lessons. Finally, a context of Cortina's methods within the world of vocal pedagogy will be included throughout the document as her methods of teaching are explained.

Cortina's methods have resulted in a high degree of proficiency in her students. She has studied and understands the voice and its function in its entirety; therefore, she has had success with singers of every *fach* and singers who are at various stages of vocal development. She is a student of the scientific approach to singing first developed by Manuel Garcia II.² Her teaching methods include an even mix of this scientific approach and the imagery-based approach that dominated vocal pedagogy prior to Garcia and is now considered to be the more traditional method of vocal pedagogy.³ Although combining different methods of vocal pedagogy into a teaching philosophy is not uncommon, this study will articulate the way Cortina has combined methods from scientific-based pedagogues, and the more traditional imagery-based pedagogues into a well-developed technique. The aspects of her method included in this study are limited to breath and support, resonance, issues with register, articulation, and musicality.

Having a defined vocal method is only part of what makes an effective teacher; the ability to communicate that information to your students in a way that they can understand and implement the information is vital. In this study, as I detail her methodology, I will also explain her process of relaying these methods to her students. Additionally, the transcripts found in the Appendix include interviews with four of

²Manuel Patricio Rodríguez Garcia II, (1805-1906), was a revolutionary vocal pedagogue and author. He is most famous for his invention of the laryngoscope in 1855.

³Stark, in his book *Bel Canto: A History of Vocal Pedagogy*, writes that there are two main schools of thought on vocal pedagogy: the traditional and the scientific. Traditional vocal pedagogy, also known as the empirical approach, refers to that type of vocal pedagogy which is opposite of Garcia's scientific approach. He continues describing traditional vocal pedagogy as a practice which is "based upon indirect methods of achieving good tone quality;" imagery-based methods.

James Stark, *Bel Canto: a History of Vocal Pedagogy* (Toronto: University of Toronto Press, 1999), xxiii, 51.

Cortina's students who have become successful singers and teachers. These transcripts will also attest to her success as a teacher and her effective methods of communication. I do not claim that her teachings alone are what made these musicians successful, but rather, that she had a part in developing their technical ability as classical singers. At the beginning of the interviews, I specifically asked them to limit their responses to information that is pertinent to the subject of how Cortina and her methods have affected them in their careers; even though they have had other teachers. These students include Arthur Espiritu, who studied with Cortina as an undergraduate student and is now a tenor who has performed at the Teatro alla Scala, Milan and is currently a performing opera singer; Ernesto Rodriguez, who studied with Cortina as a graduate student and is now the Director of Vocal Activities and Professor of Voice at the University of Costa Rica; Dr. David Bernard, who studied with Cortina as an undergraduate student and is now a baritone having appeared with the Metropolitan Opera and Professor of Voice at Southeastern Louisiana University; and Dr. Valerie Francis, who studied with Cortina as a graduate student and is now a Professor of Voice at Nicholls State University, Louisiana, and a soprano who has performed operatic leading roles at opera houses throughout the United States. During the interviews, the musicians described their careers and how Cortina was instrumental in their development as singers and teachers. These singers also detail those aspects of Cortina's methods that have been most influential to them in their careers as singers and teachers. Additionally, the interviewees described what aspects of Cortina's methods have been most effective for them and what methods of Cortina's they currently use as voice teachers. The final portion of the transcripts includes the singer's suggestions for beginning teachers of classical voice at the college level.

Need for the Study

Modern literature on vocal pedagogy contains philosophies based on imagery, or indirect methods of teaching concepts of vocal pedagogy, books that focus on the scientific approach to teaching, or, direct methods of teaching concepts of vocal pedagogy through use of anatomical and scientific information, books that explore the earlier Italian, German, English and French methods of singing, and books that address specific vocal problems. For beginning voice teachers looking for a model of one complete method and process of teaching, many of these sources are either too broad and do not give specifics or they are too limited and do not cover all of the principal elements of vocal technique.⁴ For instance, *A Spectrum of Voices* by Elizabeth Blades-Zeller offers a comparison of modern vocal techniques, but it does not go into detail on any one teachers' entire teaching philosophy.⁵ While this book is very helpful for a teacher looking for a multitude of opinions, it does not help a teacher looking for a unified method of teaching undergraduate voice. Learning one teacher's process, technique, and ways of communicating the technique on the primary aspects of vocal pedagogy to the students will provide beginning teachers a model of a complete method of a teacher of classical voice at the undergraduate level.

Limitations of the Study

This study will not provide comparisons to vocal pedagogues who teach other approaches, such as are found in *A Spectrum of Voices* by Elizabeth Blades-Zeller, but

⁴A few of the many books that do act as a teaching source include the following: Clifton Ware, *Basics of Vocal Pedagogy: The Foundations and Process of Singing* (Boston: McGraw-Hill, 1998); Jan Schmidt, *Basics of Singing* (Belmont, CA: Thomson & Schirmer, 2006); Van A. Christy, *Foundations in Singing: A Basic Textbook in Fundamentals of Technic and Song Interpretation* (Dubuque, IA: WM. C. Brown Company Publishers, 1981).

⁵Elizabeth Blades-Zeller, *A Spectrum of Voices: Prominent American Voice Teachers Discuss the Teaching of Singing* (Lanham, MD: Scarecrow Press, 2002).

will rather focus solely on Cortina's teaching philosophy. It will also include supportive information gathered from sources that have influenced and helped in formulating Cortina's technique. I will cite methods of two main pedagogues who have influenced Cortina to give a context for her pedagogical philosophies. This project will also not be able to cover all aspects of Cortina's methods of teaching. It will not specify how she individually assesses students and alters her approach based on students' specific vocal faults, backgrounds, structural defects, sizes, shapes, or ages, because that degree of specificity is beyond the boundaries of this project, but it does provide a description of the main aspects of her teaching philosophy on the whole. Finally, the goal of this study is not to prove that all of Cortina's methods are unique or that they describe the only way to successfully teach vocal technique, but rather, to detail how Cortina's methods relate to the overall study of vocal pedagogy, to describe her process, and to outline her pedagogical ideas and methods of teaching specific aspects of vocal technique to undergraduate students.

The methodology to be used in this study includes interviews with Cortina, a brief survey of scientific and traditional pedagogical influences which Cortina noted during the interview process, a study and review of her teaching philosophies on selected aspects of vocal pedagogy, and interviews with her students.

Overview of Raquel Cortina's Career and

The Development of Scientific Thought in Vocal Pedagogy in the Late 20th Century

Cortina's first formal voice teacher was Ruth Falcon, whom Cortina studied with during her high school years.⁶ After studying with Falcon, Cortina joined the studio of

⁶Ruth Falcon became an international performer. She has performed at the New York City Opera, Bayerische Staatsoper in Munich, The Metropolitan Opera, Opera de Paris, Wiener Staatsoper,

Dorothy Hulse who was a Professor of Voice at Loyola University. Cortina, deciding to remain in New Orleans for her undergraduate degree, enrolled in the University of New Orleans. At the time, UNO did not have a vocal music major, so she majored in French Language and Literature with a minor in music. She later continued taking voice lessons with another professor at Loyola University - Mary Tortorich. While at UNO she took every music course that was offered including music theory, music history, and choir. Along with her private voice lessons, she also participated in opera productions directed by Arthur Cosenza, who was then the opera director in the music department at Loyola University. In this way, she took the equivalent of a music major's course requirements while also earning her degree in French language and literature.

In the summer following her graduation from UNO, she decided that she wanted to continue her studies in voice. She was determined to earn master's and doctoral degrees from Florida State University in Tallahassee in the studio of the renowned singer Elena Nikolaidi. In the fall of 1968, Cortina was admitted to FSU with a full assistantship. At first she was not able to study with Elena Nikolaidi, as Nikolaidi's studio was already full. Instead, she was placed in the studio of Donna Jeffrey. Cortina was grateful to study with Ms. Jeffrey who was a regular performer at New York City Opera. Jeffrey was an excellent teacher for Cortina because she placed a heavy emphasis on solidifying Cortina's vocal technique.

Under Jeffrey's tutelage, Cortina learned how to question her technique when she was practicing without her teacher. During lessons Jeffrey would not automatically tell

Hamburgische Staatsoper, Teatro alla Scala, the Royal Opera at Covent Garden, Deutsche Oper Berlin, Teatro La Fenice, Teatro Colon, Opera de Marseille, New Orleans Opera, Opera de Monte Carlo, and others. She currently is a voice faculty member at Mannes, The New School of Music.

"College Faculty: Ruth Falcon," *Mannes College The New School for Music website*
<http://www.newschool.edu/mannes/facultyCollege.aspx?mid=4620> (Accessed August 29, 2011).

Cortina when she was singing incorrectly; rather, she would ask Cortina questions about her posture, her breath, and other technical aspects of her singing. In this way Cortina learned to question her technique as she sang. “How is my posture? Am I creating tension in my jaw as I move between vowels? Is my breathing silent, low, and full? Is my tone resonant? Are my vowels pure? Is my diction intelligible? Am I expressing the text? and Am I fully supporting my tone?” are some questions she would ask of herself as she was singing in order to self-assess.⁷ This was an important time for Cortina, because when she finally did enter Nikolaidi’s studio the following year, the emphasis in her studio focused mainly on artistic concerns. Nikolaidi expected her students’ technique to be solidified by the time they entered her studio. Under Nikolaidi, Cortina noted that was when she learned to be an artist, and she also gained experience by performing frequently.

Upon completion of her master’s and doctorate degrees in 1972, Cortina returned to New Orleans to accept an Assistant Professor position at the University of New Orleans where she was expected to create and head the undergraduate program in vocal performance at that institution. She continued her vocal studies with Clara del Marmol at Tulane University and she performed regionally, but she found she had a great passion for teaching. She remembers being very focused on classical singing.

When I first graduated, I felt that classical voice was it. I was very narrow-minded. Nothing but classical singing! If you didn’t like classical singing, you were nothing. And if you were a pop singer, God help you because I wasn’t going to!⁸

⁷Raquel Cortina Interview. August, 2011.

⁸Ibid.

She recalls that most voice teachers in the mid to late 20th century would only consider teaching classical vocal methods to students. As she continued teaching, though, she came to realize that speakers or singers who were using their voices in a professional way required assistance with optimizing their vocal production. She mused, “Look at that fellow over there who is just bursting his vocal folds singing country and western! These people need voice teachers.”⁹ When she began teaching non-classical singers in particular, she felt the great importance of learning and understanding anatomy and the function of the vocal mechanism from a scientific standpoint.

Vocal pedagogy in the early 20th century was primarily based on the more traditional use of imagery (or indirect methods of teaching technique during lessons). Teachers who teach with this approach were following the traditions of teaching begun by pedagogues such as Guilio Caccini of the 17th century, Pierfrancesco Tosi of the 18th century, Francesco Lamperti of the 19th century, and Giovanni Battista Lamperti of the 19th and early 20th centuries.¹⁰ These traditional vocal pedagogues primarily used imagery-based techniques versus Manuel Garcia II and his followers who include pedagogues and singers such as Mathilde Marchesi, Lilli Lehmann, Blanche Marchesi, Julius Stockhausen, and Cornelius Reid, of the 19th and early 20th centuries who taught technique to students with more scientifically-based, or direct methods of teaching.¹¹ Pedagogues of the latter 20th century and early 21st century who also follow the voice-science methodology include William Vennard, Barbara Doscher, Richard Miller, Van

⁹Raquel Cortina Interview. August, 2011.

¹⁰Stark, 66-225.

¹¹Ibid.

Lawrence, Willard R. Zemlin, Johan Sundberg, Thomas Cleveland, and Ingo Titze.¹² Many pedagogues of the latter half of the 20th century and beginning of the 21st century have embraced aspects of both the scientific and traditional methods of teaching voice. Such teachers include Van A. Christy, Weldon Whitlock, Richard Alderson, Pearl Shinn Wormhoudt, William Leyerle, James McKinney, Larra Browning Henderson and Meribeth Bunch.¹³ For in-depth inquiries into the history of vocal pedagogy, please refer to Cornelius Reid's *Bel Canto: Principles and Practices* or *Bel Canto: A History of Vocal Pedagogy* by James Stark.¹⁴

The following chart illustrates an abridged lineage of vocal pedagogues throughout history. It is meant to show how the various pedagogues influenced each other. Included are pedagogues whose work primarily reflects one of the two main types of pedagogical philosophies: traditional, also known as the empirical, psychological, or holistic approach; or scientific, also known as the mechanistic or physiological approach to vocal pedagogy. There are also pedagogues who adhere to a combination of the two approaches. Pedagogues Leyerle and Vennard, who ultimately were the main influences for Cortina, are also included in the chart.

¹²Stark, *Bel Canto*, and Ware, 249-252.

¹³Ware, 249-252.

¹⁴Cornelius L Reid, *Bel Canto: Principles and Practices* (New York: Joseph Patelson Music House, 1974); and Stark, *Bel Canto*.

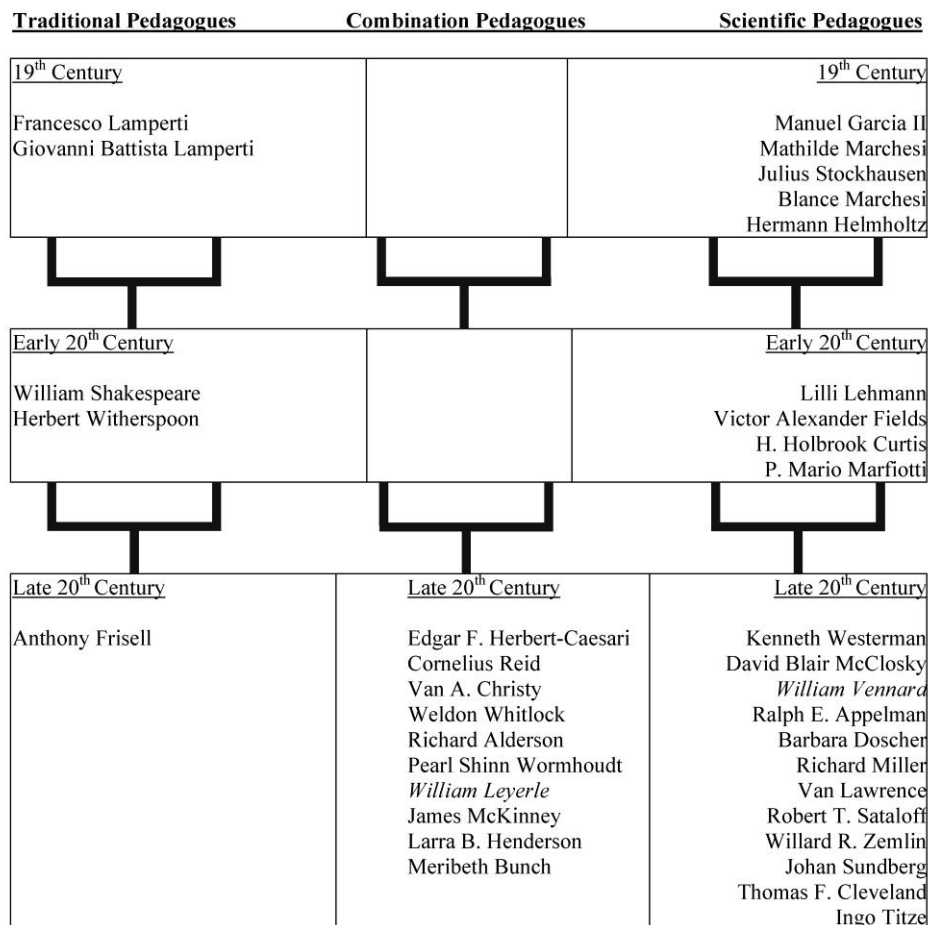


Figure 1. Chart of Vocal Pedagogues

“When I went to college, voice teachers mostly used imagery: ‘Make sure the voice travels over that roof top, feel the voice soar freely, imagine this, imagine that’ ... and the premiere voice teachers looked down on those who were doing research in voice science.”¹⁵ Cortina added that some of the traditional teachers even assumed that those who utilized a scientific approach did so because these teachers themselves could not sing well. They believed that if a teacher spent time conveying any kind of scientific information while teaching, that it would be at the cost of artistry.¹⁶

¹⁵Raquel Cortina Interview, August, 2011.

¹⁶Vennard also describes this phenomenon at length in his last chapter titled “Coordination.”

Cortina, however, was drawn to the scientific side of vocal pedagogy. She explained that traditional teachers are successful with singers who respond well to imagery-based methodology, but that when these teachers are faced with students who do not respond well to this approach or students who have any kind of medical problems, these teachers do not know what to do. She described her belief that knowledge about the vocal mechanism would not obfuscate the artistry of singing, but would rather create informed singers who were more in control of the production of their voices.

She remembers joining NATS, (the National Association of Teachers of Singing), and attending their conventions where they featured guest speakers. One speaker who had a tremendous impact on her was Dr. Robert Thayer Sataloff.¹⁷ Sataloff, a renowned otolaryngologist whose practice is based in Philadelphia, Pennsylvania, also heads the Voice Foundation of Philadelphia and holds a Doctor of Musical Arts degree in vocal performance. He works to connect doctors and other experts who use their voices professionally. This was a revolutionary goal at the time because before voice specialists like Sataloff, most doctors would treat people who used their voices professionally the same way they would treat the general public. “Before the 1970s, doctors, for the most part, did not know how to advise professional singers who had hormone issues, who had to take steroids for infections, who were pregnant, who were going through menopause,

William Vennard, *Singing: The Mechanism and the Technique* (Boston: Carl Fischer, 1967), 210; and Stark mentions that G. B. Shaw, Franklyn Kelsey, Philip A. Duey, and Cornelius L. Reid were pedagogues who disagreed with scientific-based vocal pedagogy.

Stark, xxii.

¹⁷Robert Thayer Sataloff, MD, DMA, FACS.

who were going through puberty, who were aging, etc..”¹⁸ Specialists like Sataloff were radical, and their research and knowledge intrigued Cortina immensely.

I think it is important for a voice teacher to have some scientific knowledge along with all the artistic knowledge. For instance, if a student suddenly comes into a lesson one day and says ‘I cannot sing my high notes anymore. I don’t know what’s happening to me,’ before the 1970s, the teacher might have said, ‘Oh, well you must not be practicing.’ But now we know to advise a student, ‘Maybe there is a medical condition that you are suffering from.’ Voice science has come a long way.¹⁹

Sataloff became a mentor for Cortina, and she attended every Voice Foundation symposia where Sataloff was a featured speaker. She continued learning, and she taught voice students with a mix of the scientific information that so interested her. In 1992, she applied for and was granted the Van L. Lawrence Fellowship through the Voice Foundation for exhibiting excellence in her profession as a singing teacher, interest in, and knowledge of voice science. This fellowship allowed her to spend some time that summer with Dr. Sataloff in his practice and to learn from him. During her time with him, she was able to observe Sataloff during his daily practice. She accompanied him on his consultations with singers who were patients, and she was even present during surgeries he performed on singers who had medical issues which affected their vocal production such as vocal nodes, cysts, and human papillomavirus on the vocal folds. During the surgeries, Sataloff would explain to Cortina what she was seeing and what he was doing. She was able to study his recorded tapes of laryngoscope sessions and watch a

¹⁸Raquel Cortina Interview. August, 2011.

Stark also writes that only in the last few decades of the 20th century has the general population of vocal pedagogues accepted “the value of voice science and its contribution to vocal pedagogy.” Stark, xxiii.

¹⁹Raquel Cortina Interview. August, 2011.

human larynx in action.²⁰ When her time in Sataloff's office was completed, she remained in contact with him and he asked her to give talks and master classes at the Voice Foundation meetings from time to time.

During her first semester as the head of the vocal department at UNO, she auditioned and selected thirty students who had varying interests in classical voice. Based on their audition, their experience, their capability, and their individual goals, she arranged the students into two main groups: those she would accept as voice majors to teach individually, and those she felt would be better served in a class voice setting. She wanted to impart her knowledge of healthy vocal production for group singers and also for soloists. She succeeded in developing the vocal performance and vocal music education degrees at UNO. To this day, the vocal courses listed in the University of New Orleans' catalog were written by Cortina. In 1981, she became a full Professor of Music and Director of Opera Theater and Vocal Activities at UNO. In 1997, she was awarded the Seraphia D. Leyda University Teaching Fellowship. She taught many courses at UNO including, but not limited to, applied voice, class voice, diction, vocal pedagogy, and opera workshop from 1972 to 2001. She also published articles on various subjects of vocal pedagogy for the NATS Journal, and she was a frequent speaker and presenter at the Voice Foundation and the Care of the Professional Voice symposia.

Beginning in 1998, Cortina began recruiting vocalists from Costa Rica to come to UNO to study with her. She went annually to the University of Costa Rica (Escuela de Artes Musicales Universidad de Costa Rica, San Jose) for one week every summer from

²⁰The laryngoscope was developed by Manuel Garcia II in 1841. In its original form it was a simple tool with mirrors on it which would allow a doctor to look at and study the vocal folds in a live patient. Doctors still use this tool, but there have been technological advances to the laryngoscope as well. Currently, doctors can insert a small camera, or endoscope, into the nostril of a patient. This endoscope goes into the sinuses and can view the vocal folds from all angles.

1998 to 2005 and teach students and give master classes. She has often served as a classical vocal adjudicator at various solo and choral competitions. While judging the International Convention in Peru, Cortina was asked to present a master class on anatomy and the science of voice pedagogy. “I taught a class on the scientific approach to vocal pedagogy and how you can incorporate that into the teaching of voice students. I brought my anatomical models and I started with ten rules on how to keep a healthy voice.”²¹

During her tenure at UNO, she maintained her career as a professional soprano as well. Cortina’s operatic roles include the Queen of the Night from Mozart’s *Die Zauberflöte*, Suor Genevieve from Puccini’s *Suor Angelica*, Kate Wendler from Kurka’s *Good Soldier Schweik*, and Minerva from Monteverdi’s *Il ritorno d'Ulisse in patria*. As a concert soloist, she has performed Haydn’s *The Creation* and his *Lord Nelson Mass in D Minor*, Bach’s B Minor Mass, Brahms’ *A German Requiem*, Fauré’s Requiem, and Orff’s *Carmina Burana*, to name a few. She has appeared with the New Orleans Philharmonic Symphony Orchestra, the New Orleans Philharmonic Symphony Chamber Groups, the New Orleans Summer Pops Orchestra, the New Orleans Civic Orchestra, and the University of New Orleans Wind Ensemble in addition to performing solo recitals, lecture recitals, and television and radio appearances.²² She has performed five world premieres of the works of American composers. As the Director of Opera Theatre at UNO, she produced numerous operas and musicals including *Gianni Schicchi*, *Madama Butterfly*, *La Bohème*, *The Merry Widow*, *Cavalleria Rusticana*, *I Pagliacci*, *Suor Angelica*, *The Pirates of Penzance*, *Die Fledermaus*, *Hansel and Gretel*, *Kiss Me Kate*,

²¹Raquel Cortina Interview. August, 2011.

²²Television and radio appearances include those in Madrid, Spain, San Jose, Costa Rica, Mexico City, Mexico, Managua, Nicaragua, Tallahassee, Florida, and New Orleans, Louisiana.

and *Faust*. Her performances and productions that she directed have been reviewed in magazines, journals, and newspapers on over fifty occasions. For the accomplishment of establishing and building a vocal department at UNO and for her many other achievements, she was awarded the Gambit's Lifetime Achievement Award in New Orleans in 2004.²³

In 2005, Hurricane Katrina devastated the city of New Orleans and the University of New Orleans campus. The music department suffered severe cuts to their program and budget. The vocal performance degree was eliminated at UNO from 2005 to 2009. In 2009, Dr. Robin Williams, the head of the Music Department at UNO, asked Cortina to return to UNO to reinstate the Master's degree in vocal performance. Cortina agreed to help and is now working with the graduate students at UNO.

Review of Sources Which Were Influential to Cortina

The two sources that have been influential in the formation of Cortina's pedagogical views are William Vennard's *Singing: The Mechanism and the Technique* and William D. Leyerle's *Vocal Development Through Organic Imagery*.²⁴ Cortina has developed her teaching methods using a combination of two approaches to vocal pedagogy - the scientific approach which she learned mainly from reading the technique of William Vennard, and the more traditional, imagery-based approach which she learned mainly from William D. Leyerle.²⁵ Vennard describes his book on technique as

²³Eliza Strickland, *Voice of a Generation: Raquel Cortina, the Lifetime Achievement Award honoree at this Year's Tribute to the Classical Arts, Helped Make a University Sing* (New Orleans, LA: Gambit Magazine, 2004), <http://www.bestofneworleans.com/gambit/voice-of-a-generation/Content?oid=1242509> (accessed August, 2011).

²⁴Vennard, *Singing: The Mechanism and the Technique*, and William D. Leyerle, *Vocal Development Through Organic Imagery*, 2nd ed. (Geneseo, NY: State University of New York, 1986).

²⁵Leyerle, *Vocal Development Through Organic Imagery*.

attempting to “approach vocal problems mechanistically,” and also “analyzing the [vocal] process to explain it scientifically.”²⁶ Although Leyerle’s book is on using imagery to teach classical technique, he describes his imagery as “logical and progressive, based on a firm, physical foundation.”²⁷ References from these two vocal pedagogues will be used often in this project in order to provide a context for Cortina’s philosophies within the world of vocal pedagogy.

William Vennard was a voice scientist who has taught, performed, and published works on vocal pedagogy. He was a vocal professor at DePaul University, the American Conservatory, and at the University of Southern California where he eventually chaired the vocal department from 1950 until his death in 1971. Mark Pearson reviewed Vennard’s book in the *Music Educators Journal* in 1967 and wrote “Mr. Vennard has written a work of great scope and merit that can be recommended highly to all teachers who wish to pursue a scientific understanding of the vocal instrument.”²⁸ He was a very successful teacher; Marilyn Horne was his most famous student. Vennard was a member of, and former national president of the National Association of Teachers of Singing. Dr. Thomas Cleveland, the director of vocology at Vanderbilt’s Bill Wilkerson Center, described Vennard as “a pioneer in the science of singing and in voice pedagogy and [he] was instrumental in fostering collaborative efforts between singers, physicists,

²⁶Vennard,208.

²⁷Leyerle ix.

²⁸Mark Pearson, "Singing, The Mechanism and the Technique by William Vennard" *Music Educators Journal* Vol. 54, No. 4 (Dec., 1967), pp. 75-76.

psychologists and voice scientists.”²⁹ Cleveland also mentioned that Vennard’s “renowned text, *Singing, The Mechanism and the Technique*, is a constant resource for teachers and researchers alike.”³⁰ Cortina’s method of teaching undergraduate voice students includes a combination of traditional approaches that include some holistic methodology and the more mechanistic approaches such as Vennard’s. For pedagogical vocal methods that differ from Vennard’s, see books on holistic approaches to teaching singing.³¹

William Leyerle is a baritone who performed in opera companies in America, Germany, Switzerland, and Denmark. He taught studio and class voice for thirty-three years at the State University of New York at Geneseo, he served as State Chairman in Voice for the New York State School Music Association, and he was an active member of and writer for the National Association of Teachers of Singing. Leyerle was a composer and he also published reference works in vocal pedagogy and in classical vocal

²⁹Tom Cleveland, "Vennard, William," *Grove Music Online*
<http://www.oxfordmusiconline.com.logon.lynx.lib.usm.edu/subscriber/article/grove/music/46590>
 (Accessed September 3, 2011).

³⁰Cleveland.

³¹Examples of holistic-based sources of vocal pedagogy include the following:

Anthony Frisell, *Training the Baritone Voice* (Boston: Branden Publishing Company, 2007); and *Training the Tenor Voice* (Boston: Branden Publishing Company, 2003); and *Training the Soprano Voice* (Boston: Branden Publishing Company, 2003); Janice L. Chapman, *Singing and Teaching Singing: A Holistic Approach to Classical Voice* (San Diego: Plural Publishing, 2006); Orlanda Cook, *Singing with Your Own Voice : A Practical Guide to Awakening and Developing the Hidden Qualities in Your Own Singing Voice* (New York: Nick Hern Books, 2004); Walter Charles Foster, *Singing Redefined: A Conceptual Approach to Singing that Includes a Study of the Emotional Process and the Imaginative Capacity, Linguistic Awareness and Musical Awareness, Singing Concepts Based on the Responsive Nature of the Instrument, and Exercises Designed to Promote a Technically Correct, Artistically Expressive Singing Tone* (Huntsville: Recital, 1998); Thomas Hemsley, *Singing and Imagination: A Human Approach to a Great Musical Tradition* (Oxford: Oxford University, 1998); Kristen Linklater, *Freeing the Natural Voice* (New York: Drama Books, 1976); Doreen Rao and William Perison, *Circle of Sound Voice Education: A Contemplative Approach to Singing through Meditation, Movement, and Vocalization* (Boosey and Hawkes, 2005); Cornelius L Reid, *The Free Voice, a Guide to Natural Singing* (New York: Coleman- Ross, 1965); and Karen Sell, *The Disciplines of Vocal Pedagogy: Towards an Holistic Approach* (Burlington: Ashgate, 2005).

literature. He developed his own publishing company, Leyerle Publications, which is dedicated to the study of voice.³² A National Association of Teachers of Singing reviewer described Leyerle's *Vocal Development Through Organic Imagery* as "an excellent book ... valid for all singers and for teachers of singing... It is a pleasure to welcome William Leyerle's valuable contribution to the field of vocal pedagogy."³³ For pedagogical vocal methods that differ from Leyerle's, see books that focus on scientific approaches to teaching singing.³⁴

Cortina gained a deeper understanding of medical issues and scientific information about singing by reading and studying Sataloff's many books such as his *Vocal Health and Pedagogy*, and Garcia's *A Complete Treatise on the Art of Singing*.³⁵ Cortina noted that Richard Miller's many books were very informative for her as well, even if she disagreed with some of his methods. However, she specifically cited his

³²Leyerle, 178.

³³Richard Dale Sjoerdsma, "A Review of Vocal Development Through Organic by William Leyerle," *The NATS Bulletin: The Official Magazine of the National Association of Teachers of Singing* Volume 41 (September/October 1979).

³⁴Examples of scientific-based pedagogy sources include the following:

Dudley Ralph Appelman, *The Science of Vocal Pedagogy: Theory and Application* (Bloomington: Indiana University Press, 1967); Berton Coffin, *Coffin's Overtones of Bel Canto: Phonetic Basis of Artistic Singing*. (Oxford: Scarecrow Press, 1980); David Blair McClosky, *Your Voice At Its Best* (Boston: Little Brown, 1972); R. H. Colton and Jo Estill, "Elements of Voice Quality: Perceptual, Acoustic and Physiologic Aspects," In *Speech and Language: Advances in Basic Research and Practice*, Vol V, ed. N. J. Lass (Academic Press: New York, 1981); Barbara M Doscher, *The Functional Unity of the Singing Voice*. 2nd ed. (Lanham, MD: Scarecrow Press, 1994); and Scott McCoy, *Your Voice: An Inside View* (Princeton: Inside View Press, 2004).

³⁵Robert Thayer Sataloff, *Vocal Health and Pedagogy* (San Diego: Singular, 1998); and Manuel Garcia, *A Complete Treatise on the Art of Singing: Complete and Unabridged, The Editions of 1841 and 1872*, ed., trans. Donald V. Paschke (New York: Da Capo Press, 1984).

Garcia, though highly influential, is also a controversial figure in vocal pedagogy due to his teachings on the "coupe de glotte." The "coupe de glotte" describes the slight closure of the vocal folds that Garcia suggests at the onset of the tone. It is controversial because pedagogues have interpreted it as Garcia suggesting a harsh closure of the folds at the onset. This seemingly goes against the more commonly accepted open throat or 'silent h' philosophy of vocal onset. For a detailed analysis of this controversial topic, please see Stark, 3-32, 43, and 72.

English, French, German and Italian Techniques of Singing text as being one that was of great interest to her.³⁶ “I like his take on the national schools because he believed, as I do, that the different nationalities use the facial muscles differently in order to form the vowels or formants. We all finally reach a happy medium, of course, but it explains the differences.”³⁷

She also has used McKinney’s *The Diagnosis and Correction of Vocal Faults*, Doscher’s *The Functional Unity of the Singing Voice*, and *The Dynamics of the Singing Voice* by Bunch when teaching vocal pedagogy classes.³⁸ For the history of vocal pedagogy, Cortina turned to Cornelius Reid’s *Bel Canto: Principles and Practices*.³⁹ For use in this project, however, I have found that the historical information provided in *Bel Canto: A History of Vocal Pedagogy* by James Stark, to be more informative because it has been published more recently than Reid’s work.⁴⁰ For class voice courses she found the multi-volume *Expressive Singing* textbooks and anthologies by Christy to be very effective.⁴¹

³⁶Richard Miller, *English, French, German and Italian Techniques of Singing: A Study in National Tonal Preferences and How They Relate to Functional Efficiency* (Metuchen, NJ: Scarecrow Press, 2002).

³⁷Raquel Cortina Interview. August, 2011.

³⁸James C. McKinney, *The Diagnosis and Correction of Vocal Faults* (Long Grove, IL: Waveland Press, 1994); Doscher, *The Functional Unity of the Singing Voice*; and Bunch, *Dynamics of the Singing Voice*.

³⁹Cornelius L Reid, *Bel Canto*.

⁴⁰Stark, *Bel Canto*.

⁴¹Van A. Christy, *Expressive Singing Vol. 1: Guidance, Technical Principles, Exercises, and Basic Interpretation* (Dubuque, IA: WM. C. Brown Company Publishers, 1975); and *Expressive Singing Vol. 2: Pedagogy, Production Theory and Technique, Style and Interpretation, Song Repertoire, Principles of Piano Accompaniment, Solo Voice and Piano Accompaniment Recordings* (Dubuque, IA: WM. C. Brown Company Publishers, 1975); and *Expressive Singing Song Anthology Vol. 1: 45 Songs – High, Medium, and Low Voice* (Dubuque, IA: WM. C. Brown Company Publishers, 1972); and *Expressive Singing Song Anthology Vol. 2: 44 Songs – High, Medium, and Low Voice* (Dubuque, IA: WM. C. Brown Company Publishers, 1978); and *Foundations in Singing: A Basic Textbook in Fundamentals of Technic and Song*

Finally, Cortina listed a few of the texts that she felt were vital for any voice teacher to own and use in the studio. Cortina feels that voice students should know and understand the vocal process and terminology. To help students achieve optimal understanding of pedagogical terms, she maintained a copy of Reid's *Dictionary of Vocal Terminology* in her studio for reference.⁴² Since she places an emphasis on anatomy, Cortina has found that the illustrations in *Gray's Anatomy* provide visual images for students to help students understand the vocal mechanism in detail.⁴³ As students learn art songs in foreign languages, there are many sources they can access to obtain translations of the texts and information about the poets and interpretation of the poetry. For example, to find information on the German lied, she suggests Fischer-Dieskau's *Book of Lieder*, and to find information on the French chanson, Cortina has trusted Bernac's *The Interpretation of French Song*.⁴⁴ Finally, two sources that she found to be illuminating on acting for the singer are Goldovsky's *Bringing Soprano Arias to Life* and Balk's *The Complete Singer-Actor*.⁴⁵

Interpretation with 46 Songs in Medium-Low Range (Dubuque, IA: WM. C. Brown Company Publishers, 1981).

⁴²Cornelius Reid, *A Dictionary of Vocal Terminology: An Analysis* (New York: Joseph Patelson Music House, 1983).

⁴³Henry Gray, *Gray's Anatomy*, 37th ed., ed. Peter L. Williams (Edinburgh, NY: C. Livingstone, 1989).

⁴⁴Dietrich Fischer-Dieskau, *Texte Deutscher Lieder: English and German*, 1st American ed., trans. George Bird and Richard Stokes (New York: Knopf, 1977); and Pierre Bernac, *The Interpretation of French Song: Translations of Song Texts by Winifred Radford* (New York: Praeger, 1970).

⁴⁵Boris Goldovsky and Arthur Schoep, *Bringing Soprano Arias to Life* (New York: G. Schirmer, 1973); and H. Wesley Balk, *The Complete Singer-Actor: Training for Music Theater* (Minneapolis: University of Minnesota Press, 1986).

CHAPTER II

PHILOSOPHIES OF CORTINA ON VOCAL TECHNIQUE

The aspects of Cortina's vocal technique that will be covered in this document are breath and support, resonance, registration, articulation, and musicality. Cortina employs a method of teaching focused on developing singers who are technically secure in addition to being effective performers. Under each element of vocal pedagogy covered in this document, the focus will remain on Cortina's process of teaching, how that process was informed by the teachings of Vennard and Leyerle, and how she has communicated these technical vocal concepts to undergraduate vocal performance majors.

With a first semester freshman, Cortina spends the first three weeks explaining the core concepts of her technique, which are covered in the five pedagogical subjects mentioned previously. She selects repertoire with the student during the first session but does not teach the literature during the lesson time until the fourth week of the semester. Though there is a great deal of pressure to help a student learn multiple pieces each semester, Cortina feels it is vital to take the time to provide the student with a thorough understanding of how the vocal mechanism works and the basic precepts of classical vocal production. She also strives to develop a technical vocabulary with the student from the very beginning in order to be able to freely use some technical terms throughout the semester.⁴⁶ This use of time at the beginning of the semester is very important to Cortina though some teachers would disagree with this choice. Some teachers divide their lessons into two parts from the onset of the semester: half of the lesson is spent on vocalization, and the second half of the lesson is spent working the repertoire. Cortina's reasoning for

⁴⁶Specific examples of technical vocabulary Cortina uses with her students will be included later in this document.

choosing to conduct her lessons in this manner will be explained in more detail later in the chapter.

When asked if she identifies with the scientific or more traditional imagery-based pedagogical philosophy, Cortina responded, “I try to keep a very even balance between the two types of vocal pedagogy. There are some teachers who would use only the scientific knowledge in their studios. That does not work either, because singing is an art. You have to keep an even balance. I use science to serve the art of singing.”⁴⁷ Vennard describes imagery as “figures of speech [used] to express concepts which are difficult to understand literally,” and Leyerle adds that imagery can also be “mental pictures of a literal or figurative concept.”⁴⁸

Cortina focuses on keeping a balance between the two methods, and she uses both to help communicate technical aspects of singing to her students. “I try to help those who are completely scientific by bringing artistry into their practice. And those who are accustomed to receiving only imagery-type instruction, I give them an understanding of their instrument and communicate using technical terminology to them as well.”⁴⁹ She stated that with most students, she employs an even amount of scientific and imagery-based instruction.

An explanation of Cortina’s methodology could not be complete without detailing what she has termed the “three cruel friends.”⁵⁰

⁴⁷Raquel Cortina Interview. August, 2011.

⁴⁸Vennard, 261, and Leyerle, 14.

⁴⁹Raquel Cortina Interview. August, 2011.

⁵⁰Ibid.

The three cruel friends are always in the studio: the mirrors, the recording device and your teacher. The mirror will tell you no lies. You may not like what you see, but it will teach you how to identify problems for yourself. They are strategically placed so that I can observe the student's front, side, and back and also so that the students can watch themselves as they sing. The recording device must be used in every single voice lesson. Each voice student takes the recorded lesson with them so that they can listen to it and obtain a better understanding of what happened during the voice lesson. Then they must use their mirror and listen to their recordings during their daily practice.⁵¹

Cortina also stressed the importance of trust between the student and teacher, "There has to be a free, open relationship between students and teachers."⁵² She explained that one of her goals is that students should feel that the teacher is an ally in the learning process so that they feel comfortable enough to experiment as they learn.

When she began to explain her technique, she explained that she thinks of vocal pedagogy as a circle. On the circle there are different elements of instruction such as posture, breathing, resonance, projection, equalization of vowels, legato singing, language instruction, range, artistry, musicality, expression, and vocal color. According to Cortina, depending on a student's strengths and weaknesses, she will open the circle at different points at different times in a student's development. Leyerle views pedagogy as a "spiral continuum."⁵³ He wrote "the advantage of this [spiral] approach is that not so much distance is put between one factor [of vocal pedagogy] and another by isolation. There is an ever-widening expansion. Balance is maintained."⁵⁴ This thought process is similar to Vennard's belief that finding truth in pedagogy is spherical in nature.⁵⁵ He

⁵¹Raquel Cortina Interview. August, 2011.

⁵²Ibid.

⁵³Leyerle, 120.

⁵⁴Ibid.

⁵⁵Vennard, 208.

wrote that “opposite segments of a sphere appear to be contradictory, but if anyone is extended sufficiently it arrives at completeness and includes all the other fragments.”⁵⁶

Teaching voice is a circle – I like to think about it that way. According to the student and his ability and how he learns, reasons, and perceives different things, I break my circle of teaching. Depending on the student, I break the circle in different ways; in different spots. Let’s say you have three freshmen; every singer is different. I might need to emphasize posture for one of them. I might go to breathing first with another one. With the third, I might go straight to the vocal process – the larynx, tongue, lips, and facial expression. You can concentrate and begin on many different aspects of vocal pedagogy based on the needs of the individual students.⁵⁷

Regardless of the student’s unique needs, with every student Cortina begins the semester assessing and increasing their knowledge of anatomy, their understanding of the vocal mechanism, and their level of comprehension of classical vocal production.

Posture

Usually a student’s first session with Cortina begins with a lesson on posture for the classical singer. She details the optimal posture of a student’s body for singing; working from the position of the feet through to the head. Cortina explained that her knowledge and understanding of anatomy has helped her to teach a student how to work with the skeleton to find their optimal posture. She aligns the student so that his skeleton supports his weight in such a way that a great deal of strength and flexibility becomes available with the least amount of tension. Cortina’s instructions are very similar to Leyerle’s on the topic of posture: the feet should be shoulder width apart, knees should be slightly bent, hips should be under the shoulders, hands should hang loosely at either side of the body, the chest should be comfortably elevated, the shoulders should go along with the elevated chest by resting directly below the ears, and the head should be held erect

⁵⁶Vennard, 208.

⁵⁷Raquel Cortina Interview. August, 2011.

with the face forward and the chin parallel to the ground.⁵⁸ She has found that attention needs to be placed on the position of the shoulders in particular. Leyerle writes that “the correct position of the shoulders should be backward and down,” and that “the shoulders should never be raised during vocalization.”⁵⁹ McKinney suggests stretching exercises for students to help them loosen their muscles so that they can achieve correct posture without tension. One exercise he suggests is that students should “move their shoulders around in circles, first to the back and down several times, and then reverse the direction.”⁶⁰ A phrase Cortina created to teach the correct placement of the shoulders is “roll and click.” This instruction is similar to McKinney’s exercise: she has the students roll their shoulders 360 degrees towards the back, but instead of having them reverse the direction of the roll, she then instructs them to let their shoulders fall naturally. Assuming a student’s chest is elevated, Cortina stated that once their shoulders roll, they will essentially click into their optimal position. “I have the students watch themselves as we work on posture. Since they are looking in the mirror, they will learn to identify if or when their shoulders are high. Then they will be able to tell themselves to roll and click.”⁶¹ On the topic of posture, Vennard suggested students watch themselves in the mirror and they will identify if their posture is correct or incorrect by asking themselves the simple question, “Would I pay money to look at that?”⁶²

⁵⁸Leyerle, 1-5.

⁵⁹Ibid, 3.

⁶⁰McKinney, 36.

⁶¹Raquel Cortina Interview. August, 2011.

⁶²Vennard, 19.

Breathing

“I help students find their own natural breathing. We are born breathing perfectly with perfect diaphragmatic-costal breathing. I lead the students back to that original, free breath that is natural to us all.”⁶³ After her introduction to posture, Cortina then teaches diaphragmatic-costal breathing. Teachers vary on the type of breathing they advocate. Cortina agrees with Vennard that diaphragmatic-costal breathing is ideal for classical singing.⁶⁴ Leyerle describes that it is beneficial to help the student to achieve healthy breathing habits because “inefficient breathing requires more work than efficient breathing” and the goal is “to eliminate as much unnecessary work as possible.”⁶⁵

She begins explaining the breathing process by describing the parts of the body that are engaged during breathing. She has found that some freshmen vocal majors do not possess much knowledge or understanding about their anatomy. For example, she recalled that when she would ask a student where their diaphragm was located on their body, the response was often a bewildered look. Anatomical models of the human torso and larynx are permanent fixtures in Cortina’s studio. To begin her explanation of breathing, she uses these models.

⁶³Raquel Cortina Interview. August, 2011.

⁶⁴Vennard, 28-29.

⁶⁵Leyerle, 6.



Figure 2. Photo of Selected Anatomical Models Used by Cortina.⁶⁶

Cortina has found that not only do these models help spatial learners to see what the body parts engaged in breathing look like, but it helps some students solidify their understanding of the anatomy and the functions of the organs and structures involved in breathing and singing.⁶⁷ Cortina believes that if a student can see the anatomy and visually understand how it works together to help them breathe and sing correctly, with that understanding they will be more likely to accomplish healthy singing. The models Cortina uses have body parts that are removable. From the models she would remove the lungs, rib cage and diaphragm, and explain each in detail to the student. She then shows them the location of the intercostal, back, and abdominal muscles, what they look like and how they function regarding the breathing process.

The way Cortina describes the musculature used in breathing is reflective of her Leyerle influence, which focuses on the diaphragm and the external intercostals muscles

⁶⁶Photography by Raquel Cortina.

⁶⁷For the purposes of this study, the following simplified definition of a spatial learner will be adequate: a spatial learner is a person who comprehends information in the most efficient way through the use of visual stimulation.

Howard Gardner, *Frames of Mind : The Theory of Multiple Intelligences* (New York: Basic Books, 1993), 170-236.

during his description of the inhalation process, and the abdominal and internal intercostals for expiration.⁶⁸

The basis of Cortina's teaching philosophy is to always try to introduce a topic of vocal technique with a student by first identifying something they already understand, and then adding to their knowledge with new information. "I always work with singers from the known to the unknown. If a singer does not know what he or she looks like on the inside, where everything is, and how everything functions, then they won't be able to produce a healthy and beautiful singing voice."⁶⁹

Her goal is to communicate the complex workings of the muscles and organs in a detailed, but clear manner that her students can understand. For example, Cortina will ask a student a question such as, "What happens when you breathe?" Students are always able to say at least one thing they know about the breathing process. From that point, she will elaborate on the breathing process of diaphragmatic-costal breathing. She would ask them to feel their chest, ribs, and belly as they take a deep breath so that they can feel the sensations and associate those sensations with each body part during breathing.

To aid her while teaching breathing, she would use the anatomical models to illustrate each phase of diaphragmatic-costal breathing. Since this process is used by

⁶⁸Leyerle describes the muscles used for inhalation: "During the act of inspiration, the diaphragm starts in the high position and flattens to a relatively low position, pushing the stomach downward. The diaphragm also pulls the ribs upward and outward at the front and sides. This allows more room for the expansion of the lungs as they fill with air. The external intercostals muscles are for inspiration. They are believed to assist the diaphragm in pulling the ribs upward and outward." He continues with exhalation: "After the air has entered the lungs by means of the lowered diaphragm and expanded rib cage, the abdominal muscles and the internal intercostals reverse the process. They expel the air by contracting the space for the lungs. The abdominal muscles exert an upward thrust, pushing the stomach and diaphragm back into the rib cage. The abdominal muscles are the natural antagonists to the diaphragm."

Leyerle, 11-12.

⁶⁹Raquel Cortina Interview. August, 2011.

many voice teachers, the descriptions here will be very brief.⁷⁰ In diaphragmatic-costal breathing, the diaphragm contracts, or flattens, and the stomach protrudes. This diaphragmatic contraction creates a vacuum in the lungs. Air is pulled into the lungs through the mouth or nose and the rib cage expands. During exhalation the air leaves the lungs and the diaphragm relaxes to its domed position.⁷¹ For classical singing, Cortina stresses the importance of keeping the rib cage expanded throughout inhalation and exhalation. The muscles she would focus on and explain are the intercostals, back, and abdominal muscles. During diaphragmatic-costal breathing, the abdomen is allowed to move in and out in a relaxed way, and also the intercostals and back muscles are open to expansion as well.⁷² She teaches the expansion of the intercostals and back muscles through the use of an exercise that will be detailed later on in this chapter.

Though the process of diaphragmatic-costal breathing is taught and agreed upon by some voice teachers, the use of anatomical models is an addition that is not widely documented in pedagogical literature surveyed during the research for this study. Another aspect Cortina includes during her instruction of healthy breathing is an explanation of the four phases of breathing. “I agree with Van A. Christy’s phases of breath control. I teach my students these steps. The phases are inhalation, suspension, exhalation (phonation), and recovery. I like how clear these steps are and I teach this when I introduce diaphragmatic-costal breathing.”⁷³ Although suspension and recovery are almost instantaneous phases, Cortina finds it helpful to have terminology associated with

⁷⁰For a more detailed description of this process, see Vennard, 18-35.

⁷¹Vennard, 28-29.

⁷²Raquel Cortina Interview. August, 2011.

⁷³Ibid., and Christy, *Expressive Singing Vol. 2: Pedagogy, Production Theory and Technique*.

these moments so that she can identify them specifically when a student is having trouble breathing correctly. “The suspension phase prepares your body to exhale in a consistent and controllable manner. Recovery is the quick relaxation of the breathing muscles that occurs right before you take another deep breath – not a catch breath – but when you have time to really relax and take another deep breath.”⁷⁴

Cortina teaches inhalation through the nose whenever possible, whereas some teachers advocate inhalation through the mouth as the only option. McKinney agrees that inhalation through the nose should be a possibility “when time permits.”⁷⁵ Vennard, however, advocates against inhalation through the nose for singing. He wrote that inhalation through the mouth is preferable for vocalization because inhalation “cannot be taken fast enough through the nose without dilating the nostrils noticeably, and furthermore, inhaling through the mouth tends by reflex action to adjust the resonators correctly. For vegetative purposes, nature has designed the nose as a filter for incoming air, but for singing – a superimposed function – the mouth is better.”⁷⁶ Cortina concedes that nose breathing can only be utilized during longer phrases of rest. A catch breath through the nose is impossible, because the speed of the air causes the nostrils to close. Although explaining nose breathing means that she must take the time to explain two methods of inhalation, she cites specific reasons why it is worthwhile: “It moisturizes the air, it filters the air, and it warms the air which is inhaled.”⁷⁷ She also states that nose breathing is more sustainable than mouth breathing: “I say to the student, ‘If I told you to

⁷⁴Raquel Cortina Interview. August, 2011.

⁷⁵McKinney, 48.

⁷⁶Vennard, 27-28.

⁷⁷Raquel Cortina Interview. August, 2011.

take a hundred consecutive breaths through your mouth right now, how would you feel? You would feel very dry. But if I asked you to take a hundred consecutive breaths through your nose right now, you will be fine.”⁷⁸ She acknowledged that nose breathing comes at a cost, however, because the intake of air is significantly more time consuming than inhalation through the mouth, and therefore requires more preparation. Cortina conveyed that she is not dogmatic on the subject of nose breathing.

If I have an advanced student who has done a lot of mouth breathing, I ask them to try nose breathing, but I am not going to enforce this or demand it. There are very many wonderful singers, premiere singers, who use mouth breathing. If a student has a deviated septum, or any allergies that make their nose congested, then they cannot achieve nose breathing very well. I always give my reasons for suggesting nose breathing and I emphasize its benefits if they are applicable to the student. I emphasize that it won't make them a better singer, but it will help them manage the breath a little bit better and it will help them remain healthy. But, of course, I will never say to a student, ‘You have to do this or you are out of my studio!’⁷⁹

There are three additional aspects of Cortina's teaching methods on the subject of breathing that are of note: her use of the phrase circle breathing, her use of the elastic band as a teaching tool, and her views on breath support. Cortina discussed this imagery-based term, “The circle of breath is how I describe correct breathing for singing. In my opinion, the circle of breath is achieved when you take a deep breath and you feel the expansion of the intercostals, back, and abdomen, thus creating an imaginary circle around the lower torso. I also explain that all of this is happening simultaneously.”⁸⁰ She reminds students of the correct process of breathing by telling them to use circle

⁷⁸Raquel Cortina Interview. August, 2011.

⁷⁹Ibid.

⁸⁰Ibid.

breathing or “the circle of breath.”⁸¹ Using a shape-image to describe breath is a tool that Leyerle uses as well. Leyerle suggests that teachers use a triangle when describing correct breathing: “The apex of the triangle represents the direction of breath flow – upward to the back of the neck. The base of the triangle represents the lower boundary of the expanded lungs. The sides of the triangle represent the sidewise expansion of the lungs.”⁸²

Some voice teachers use phrases such as “up and in” or “down and out” when teaching a student how to breathe. Though this type of phrase could indicate diaphragmatic-costal breathing in the mind of the teacher, Cortina has found that some students interpret these phrases as meaning something along the lines of sucking the breath in, pushing it low into their abdomen, and finally pushing their stomachs out. “I can stand here and push my stomach and abdominal muscles out and in, out and in, without ever breathing! These singers are often simply using their muscles to push in and out; they are not breathing. Their intercostals are not working. Their rib cage is not expanded. The out and in direction often makes students engage incorrect musculature.”⁸³

However the students interpret the phrase, in her experience it is always associated with students who employ pressure and muscle tension in an incorrect and detrimental manner during breathing. She also finds fault with phrases such as “down and out” or “up and in” because they call a student’s attention only to the front half of their body. Diaphragmatic-costal breathing, or circle breathing, utilizes the intercostals, an expanded rib cage from the front of the body to the back of the body, and relaxed back

⁸¹Raquel Cortina Interview. August, 2011.

⁸²Leyerle, 15.

⁸³Raquel Cortina Interview. August, 2011.

muscles which are open to slight expansion.⁸⁴ The sensation achieved during correct diaphragmatic-costal breathing is that of breath which encircles the body.

Most of Cortina's teaching philosophy excludes demonstration, but for breathing, she will sometimes make an exception for a student who is a spatial or kinesthetic learner.⁸⁵ First, she asks students if they are comfortable with physical contact. If they are, then she will instruct the student to place his or her hands on Cortina's back and sides so that she can demonstrate what expansion looks and feels like. She then inhales a full, diaphragmatic-costal breath and slowly hisses it out. Not only will the student feel the expansion of the abdomen, sides, and back, but as she exhales the student will feel that she does not allow her rib cage or chest to collapse. After they have felt this, she asks them to try her variation on Vennard's exercise for breath control.⁸⁶

In this exercise the student will breathe in slowly for four seconds, hold the breath for four seconds to feel the expansion in the lower torso all around their body and to identify the suspension phase of breathing, slowly hiss the breath out without collapsing the chest or rib cage, and finally feel the recovery before beginning the exercise again. Eventually, the duration of each phase of this exercise can be increased.⁸⁷ Cortina uses the hiss during the exhalation because it engages the abdominal muscles and is more similar to the sensations felt during phonation than exhalation alone. Vennard's exercise

⁸⁴Vennard, 20-21.

⁸⁵For the purposes of this study, the following simplified definition of a kinesthetic learner will be adequate: a kinesthetic learner is a person who comprehends information in the most efficient way through the use of physical movement or touch.
Gardner, 170-236.

⁸⁶Vennard, 35.

⁸⁷Raquel Cortina Interview. August, 2011.

does not include a hiss during the exhalation and the durations of the inhalation are not equal to the duration of the holding stage or the exhalation.⁸⁸

To help the students find this circle breathing in their own bodies, Cortina then leads the students in another breathing exercise. She asks the student to put their hands on their waist. Their thumbs should face forward, their feet should be hip width apart, their knees should be slightly bent, and their weight should be on the balls of their feet. Then she instructs them to bend over so their head releases towards the floor. She asks them to breathe and as they did, they would feel their hands pulling away from each other as their back and sides expanded. This exercise exaggerates the expansion in the back and sides because when the student bent over, their abdomen is constricted, so it cannot expand as it would while standing. Finally, she instructs them to slowly return to a standing position but asks them to stop every few inches in order to feel the expansion in their back and sides until they are standing erect. After a student has practiced this exercise multiple times, Cortina hopes that the sensation in their back and sides become part of their muscle memory, and that they will then be able to access this expansion as they breathe.⁸⁹

Cortina warned that though there are many exercises which help students find this expansion, sometimes they are disadvantageous. While usually an admirer of Vennard, she does not agree with his breathing exercise where a student lies on the ground with

⁸⁸Vennard's exercise is described in this way: "Inhale slowly, while counting five; hold the breath while counting ten; exhale slowly, while counting five: repeat indefinitely. This may be done while walking, a step for each count. Variations may be improvised, gradually increasing the length of time the breath can be held. However, the regular repetition is important. There is no virtue in abstaining for a minute and a half if you are gasping for the next ten."

Vennard, 35.

⁸⁹Raquel Cortina Interview. August, 2011.

books on his stomach and as the student breathes, the books rise and fall.⁹⁰ Cortina feels that this exercise does not help because the student could simply push his stomach up and down. She also pointed out that this exercise does not call any attention to the sides or back of the student as they are breathing.

For students who continue to struggle with her concept of circle breathing, she advocates the use of a soft elastic band. Cortina described that this band, which is similar to a maternity support belt, should encompass the student from the waist up to the bottom of the chest; approximately the width of the student's hand.

I ask them to feel the belt expanding all around their body as they breathe. I ask them not to push into the belt, but simply to allow their body to fill it. The belt has to breathe with the student. It has to be so light that they barely feel it. It will be different sizes based on the different sizes of the students. Ideally, the band will encompass as many of the ribs as he or she can feel on their torso.⁹¹

Though other teachers also suggest a belt or a band to their students, some of them suggest a more rigid belt which is meant to give the students a measure for expansion. Cortina feels that these belts hinder the students' breathing potential because it stops them at a specific point. She requires the students to practice and come to lessons wearing the band over their clothes. Additionally, she suggests they always work on their technique in front of a mirror, so that they develop visual memory in addition to muscle memory.

One of Cortina's goals is that her students develop body awareness so that they can identify when they have lost their posture or their circle breathing. On the subject of the muscular antagonism that occurs during healthy singing Cortina stated, "I believe

⁹⁰Vennard, 29.

⁹¹Raquel Cortina Interview. August, 2011.

circle breathing is what creates breath support. I do not split breathing and breath support into two categories. I feel that healthy breathing creates perfect breath support.”⁹² She has found that, for her, the usage of foreign terms such as *appoggio* tend to intimidate and do not help undergraduates.⁹³ When asked how much time she spends at the beginning of every semester on breathing, she explained that it varies per student based on their needs. She will not vocalize a student until she is sure that the student has a secure understanding of posture and circle breathing. Sometimes she has found that the student absorbs the information in half a lesson and they can vocalize during the second half of the first lesson, whereas other times it takes three lessons focused solely on breathing for the student to be able to achieve circle breathing.

Some teachers would disagree that such a focus should be spent on posture and breathing at the beginning of the semester. Vennard, for example, writes that though breath is of the utmost importance, he always has his students begin vocalizing right away, and then he addresses breathing later on in the student’s development.⁹⁴ Cortina feels it is important to solidify the basics of her technique from the onset of the semester in order to “build a solid VMM.”⁹⁵ “VMM” is an abbreviation for vocal muscle memory, and Cortina uses this to describe the muscle memory in the vocal mechanism that comes

⁹²Raquel Cortina Interview. August, 2011.

⁹³*Appoggio* is defined by vocal pedagogues in many different ways. Stark writes "Francesco Lamperti considered breath control to be the most important aspect of singing, and he used the concept of *appoggio* as a means of achieving that control. For him, *appoggio* was a broad term that referred not only to the balance of inspiratory and expiratory muscles, but also to vocal onset and glottal closure, position of the vocal tract, airflow and breath pressure, legato, and even good intonation."

Stark, 102.

⁹⁴Vennard, 18.

⁹⁵Raquel Cortina Interview. August, 2011.

with consistent attention to the development of solid, healthy technique.⁹⁶ Leyerle also writes about what Cortina calls “VMM”: “by categorizing these sensations in a logical manner, he, [the student], can develop a reliable synthesis of the diverse elements of vocal production which makes the entire process easier to perform and to retain.”⁹⁷

Introduction to Vocalization

Once the basics of technique are covered, Cortina begins vocalizing the student. The schedule of Cortina’s first three lessons with undergraduate voice majors vary between students, but typically, Cortina spends the first lesson choosing literature, going over the syllabus, and explaining posture. During the second and third lessons, she focuses on breathing and vocalization with the student. For a student who has a particularly difficult time implementing circle breathing, Cortina would begin adding phonation to the breathing process by giving the student a projection exercise using speech.⁹⁸ In this exercise, she asks the student to articulate vowels by speaking very loudly and in a slightly elongated manner on the following nonsense syllables which employ what Cortina refers to as the “five cardinal vowels” for singing: “ba, be, bi, bo, bu”.⁹⁹ When they articulate the vowels, they feel their abdominal muscles engage and they develop muscle memory which they can then apply when they sing. This exercise is

⁹⁶Raquel Cortina Interview. August, 2011.

⁹⁷Leyerle, 61.

⁹⁸Speech, as suggested here, refers to “a natural, ringing, unaffected mode of speech which projects easily without tiring the speaker.”
Leyerle, 62.

⁹⁹Cortina’s five cardinal vowels are based on the five main vowels found in the Italian language. Phonetician Daniel Jones describes the cardinal vowel as “specially selected vowel-sounds which can conveniently be used as points of reference from which other vowels can be measured.”

Daniel Jones, *The Pronunciation of English*, (Cambridge, England: Cambridge University Press, 1998), 18.

similar to Vennard's exercise on "lay, lee, loh, loo, lah."¹⁰⁰ Cortina, however, never uses the "l" consonant for her nonsense syllables, stating that she feels that consonant does not promote the relaxation in the back of the tongue that she seeks in her vocal warm-ups. She also does not use multiple consonants in an exercise such as Vennard does in his nonsense syllable exercise "la, ba, da, me, ni, po, to."¹⁰¹ Through this exercise, Cortina demonstrates her adherence to the basis of her teaching philosophy which dictates that she teaches the student a new concept by first identifying a known element and then expanding on that to teach an unknown element. What a student knows, in the case of this exercise, is how to speak, and what they do not yet fully comprehend is circle breathing, or support.

Another exercise Cortina sometimes uses during the second lesson is a simple monotone exercise on the nonsense syllables "ma, me, mi, mo, mu."¹⁰² During this exercise she assesses how the student implements the technique he or she has just learned. She helps them focus on using their circle breathing and maintaining expansion of the rib cage during catch breaths between phrases of the exercise. She also introduces the concept of singing "on the vowels" during this exercise.¹⁰³ Cortina's belief on the importance of vowels shows that she was influenced by Vennard and his section on the essentials of good diction.¹⁰⁴ To explain how important vowels are to sing she sometimes

¹⁰⁰Vennard, 215.

¹⁰¹Ibid.

¹⁰²Raquel Cortina Interview. August, 2011.

¹⁰³The phrase "on the vowels" refers to the technique of singing the consonants of text quickly in order to use the majority of the singing tone during phonation of vowels.

¹⁰⁴Vennard, 184-190.

says to the student, “Try to sing on a consonant. Sing vvvvvvv. Is that beautiful? No. We sing on the vowels. You must pronounce the consonant on the vowel and not the other way around. The beauty of the voice carries by way of the vowels, not the consonants.”¹⁰⁵

Another aspect of singing “on the vowels” includes the shape of the space inside the mouth. In classical singing, the positions that the mouth form in order to produce the vowels must be maintained even as the tongue and lips articulate consonants. Vennard wrote that one goal of singing is “articulating [the consonants] without spoiling the quality which has been generated in the larynx and resonated by the pharynx.”¹⁰⁶ Cortina has also found that when a student allows the mouth and jaw to close in order to form consonants, that scooping and a wobble in the voice may ensue.¹⁰⁷ Oftentimes, the act of lingering on the space of the consonants instead of the space of the vowels results in a singer who has a nasal vocal quality. Cortina explains that she then addresses this issue by instructing the student to lift their soft palate.¹⁰⁸ When the soft palate, or velum, is lifted, the nasopharynx, (the portal to the nasal cavity), is completely closed off, and a nasal quality will no longer be possible. The only time a small amount of nasality is acceptable is during the production of nasal consonants such as “m” and “n” and during the production of French nasal vowels.¹⁰⁹ Leyerle explains that the velum is actually

¹⁰⁵Raquel Cortina Interview. August, 2011.

¹⁰⁶Vennard, 93.

¹⁰⁷Raquel Cortina Interview. August, 2011.

¹⁰⁸Vennard describes the soft palate: “The soft palate is a two-way valve, opening the pharynx either into the mouth or into the nose. I am convinced that [for singing] it should be up.” Vennard, 114.

¹⁰⁹Ibid., 94.

stretched, not lifted, but since the sensation is so strongly felt as a lift, it has become common practice to refer to it as such.¹¹⁰

Cortina pointed out that she tries to be attentive to a student's reactions during these various technical explanations. She said that she feels it is crucial to only teach as quickly as each individual student can comprehend the information. Cortina expressed that she has, by this point in each semester, given the student a great deal of information to digest. "Less is more when it comes to teaching. Trying to work on multiple aspects of singing at once will just become overwhelming and will not help the student succeed."¹¹¹ She further explained that this is another reason she requires her students to record the lessons: he or she can go home and listen to it a few times to solidify their understanding of the information. At the beginning of the second and third lessons, Cortina quizzes the student on aspects of the technique that they have learned to assess their comprehension. She asks them if they have listened to their tapes and if they have practiced their technique daily and in front of a mirror. She also urges students to keep a singing journal and to write down questions the students find during their own practice time, and bring those questions to their next lesson. Cortina stressed that she strongly encourages students to ask questions because when they do she is able to understand where they are in their degree of comprehension. She said that she will then have the opportunity to answer the student using different vocabulary, if needed, in order to ensure the student's comprehension.

Cortina explained that, for her, the weeks spent at the beginning of the semester on technique saves time throughout the remainder of the semester. The main time-saving

¹¹⁰Leyerle, 26.

¹¹¹Raquel Cortina Interview. August, 2011.

aspect of this method, she explained, is that after the first three or four weeks of teaching technique and vocalization exercises to the student, she will not, in most cases, spend any more time during the semester vocalizing the student during lessons. She expects the student to come to lessons having already vocalized according to the specific routine she assigned them during the first three or four weeks of lessons. While some teachers spend up to half of each lesson vocalizing their students, Cortina's students spend the entirety of their lessons (after the first three or four), working on repertoire.

Some teachers would argue that the students will not vocalize before a lesson or that they will vocalize incorrectly. Cortina countered that she ascertains if the students are vocalizing correctly by quizzing the students at the beginnings of lessons by asking them detailed questions about their vocalization routine, and then, if needed, she asks them to sing for her a portion of each vocalise. She stated that she can, in this way, assess if there are any problems with their vocalization habits, and, if there are, that she addresses them immediately. Cortina did add, however, that since she spends so much time describing the goals of each vocal exercise and vocalizing the student during those first few weeks, her students do not often struggle with vocalizing on their own. Additionally, her students receive continued technical instruction because the way Cortina works with students on their literature has qualities very similar to traditional vocalization. Instead of exercises, though, she works the technique through using the student's assigned literature. This process will be described in greater detail later on in the chapter.

Finally, she has found that in studios that focus on vocalization during the first portion of every lesson, the students eventually are able to sing very well during the vocal exercise but then find it difficult to transfer that technique to their music. Richard Miller, in his book *On the Art of Singing* affirms Cortina's belief that singers must learn to

vocalize on their own.¹¹² He writes, "Every singer should arrive at a voice lesson already warmed up. Otherwise time is lost, and teacher's opinion of the student's performance level is not enhanced."¹¹³ He does amend this statement by adding that beginning students must learn their routine with their teacher first.¹¹⁴ In Cortina's studio the majority of the lessons of the semester are spent on working the repertoire, and therefore the music is the focus and not the vocalise. "I do not think a half an hour of vocalization every lesson is the most productive use of time. I also think it builds a kind of wall in the students' mind between vocalization and the act of singing and performing music. I tell my students, and they always laugh: 'People do not pay to hear you vocalise!'"¹¹⁵ Vennard however, suggests that "the ideal situation would be for the beginner to have fifteen minutes a day vocalizing with his teacher."¹¹⁶

Cortina found it crucial to add that though she believes in this method, it does not mean that she does not understand the importance of healthy vocalization. During those beginning weeks, she works in detail to explain to students exactly how to execute their daily vocalization. She suggests that the optimal time for vocalization is in the morning, and she suggests thirty minutes of vocalization every morning on the exercises she has assigned to them and in the sequence she assigned them. Cortina advises that after the thirty minutes, they should rest their voices. She warns that they should not vocalize for more than an hour without periods of vocal rest. Dr. Johan Sundberg, an acoustician and

¹¹²Richard Miller, *On the Art of Singing* (New York: Oxford University Press, 1996), 164.

¹¹³Ibid.

¹¹⁴Ibid.

¹¹⁵Raquel Cortina Interview. August, 2011.

¹¹⁶Vennard, 18.

author of multiple voice science textbooks, detailed the importance of rest for the health of the vocal mechanism.¹¹⁷ She learned from Sundberg that the larynx needs to be worked gradually and that during vocalization, a continuous working of the voice for more than an hour would be detrimental; especially to younger voice students. After they vocalize and rest, she then suggests they should rehearse their repertoire for an hour or more. On lesson days, she asks her students to come to the lesson vocalized, but also rested and ready to work on the repertoire.

Vocalization

Cortina gives her undergraduate voice majors five types of exercises which will be explained in detail: lip trills, humming exercises, equalization of vowels exercises, block scales, and flexibility exercises. Though some teachers include similar exercises, the following regimented series of exercises are specific to Cortina's process of teaching undergraduate voice students classical vocal technique. The knowledge she imparts to the students through the use of these exercises describe her methods and teaching philosophies which she expands on throughout her lessons with students throughout each semester. When she assigns these exercises to her students, she instructs that for each one, the students must begin the vocalise near the bottom of their range, work up chromatically, and always descend before moving on to the next exercise or resting their voice. This practice of beginning vocalization at the bottom portion of a singer's range runs contrary to Leyerle's practice of beginning vocalization in the middle of their range and "gradually progressing both higher and lower."¹¹⁸

¹¹⁷Johan Sundberg, "The Voice as a Sound Generator," *Research Aspects on Singing* (Stockholm: Royal Swedish Academy of Music, 1981).

¹¹⁸Leyerle, 33.

The following exercises are very simple in nature. Cortina feels that, for undergraduate students, “less is more,” and uses simple exercises to teach technique.¹¹⁹ This pedagogical belief shows her Vennard influence: “I prefer to use slow and simple scales first, such as three-tone and five-tone scales, and slow, easy arpeggios, such as the major triad.”¹²⁰

Regimen Assigned to Undergraduate Voice Majors



Figure 3. Lip Trills

Lip trills describe a vocal exercise where a student phonates and blows air through completely relaxed lips at such a speed that the lips flutter. (Children sometimes produce lip trills when they imitate the sound of a trumpet or the sound of a motorboat. Lip trills are also referred to as lip bubbles by some teachers.) If a student has tension in their lips they will have to place their fingers at the sides of their mouth or on their cheeks to facilitate the relaxation required for lip trills. Cortina stated that she begins with these trills because they increase blood flow to the vocal folds and are a gentle and healthy exercise for the voice. She believes that a student cannot produce a lip trill in an unhealthy manner; lip trills can only help a student. Speech pathologist Arnold Aronson and otolaryngologist Diane Bless also note that lip trills help students with tone focus and

¹¹⁹Raquel Cortina Interview, August, 2011.

¹²⁰Vennard, 197.

that during lip trills, "the aerodynamic balance within the vocal tract is optimal and there can be no strain on the laryngeal apparatus."¹²¹

This exercise helps students self-assess because if the student's lip trill stops prematurely, Cortina explains to them that it is because either they ran out of breath or tension arose in their lips or jaw. Since she teaches them to become self-aware, when they work on their lip trills without Cortina, they can check for these possibilities themselves and continue with the exercise. An additional reason Cortina gave for assigning lip trills is that they inform the student of how well their circle breathing is working. If the student cannot sustain the lip trill through the exercise, then the breath support the student is creating is inadequate. She has found that lip trills will optimize a student's circle breathing and aid in the development of seamless, legato singing.

She introduces lip trills to her students through the use of a five note ascending and descending scale beginning in the student's lower part of their range, working up chromatically to the upper portion of their mid-range and, finally, descending back to the lower part of their range. She explains that there is no particular vowel to focus on as students produce these trills, but rather they should pay attention to the circle breathing and maintenance of a consistent exhalation of air through phonation during the exercise. Finally, she stresses that the scales should be slurred; the student should produce definite pitches, but they should be produced in a legato manner.

¹²¹Arnold Elvin Aronson and Diane M. Bless, *Clinical Voice Disorders* 4th Ed. (New York: Thieme Medical Publishers, 2009), 237.

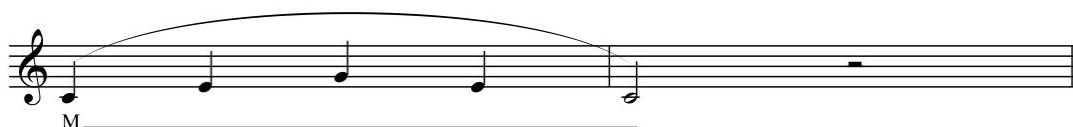


Figure 4. Humming Exercise Part One

As Cortina teaches humming exercises to her students, she also begins to teach vocal resonance. She explains that the cavities in the body are what create resonance during phonation. Cortina sometimes uses her anatomical models at this point, to illustrate the resonating cavities for students. She identifies the pharynx as the most important resonating cavity for singing. Then she uses imagery to explain how these resonating spaces create optimal vocal production.

I ask them how is it that the piccolo in the orchestra - the smallest instrument - can be heard over the entire orchestra. When the piccolo plays, its sound is always heard clearly. It projects over a heavy orchestra easily. ‘How is that?’ I ask. I explain that the empty space of the piccolo acts as a strong resonating chamber that sends the sound out – just like our resonating cavities in our bodies. How you couple the resonating chambers, or, how you access them, is how resonance in singing is achieved, regardless of the size of the instrument.¹²²

When teaching resonance, some scientific-based vocal pedagogues would explain formants or other concepts of acoustics at this point.¹²³ Cortina articulated that though she finds the scientific knowledge about resonance to be interesting, she does not include it in her daily teaching. For example, though the subject of formants is closely related to resonance, she has found that in her experience this information will not help the average

¹²²Raquel Cortina Interview. August, 2011.

¹²³Vennard defines a formant as a “cavity in the resonance system that tends to produce a particular frequency among the overtones; the frequency band itself.”

Vennard, 236.

Since Vennard’s *Singing: The Mechanism and the Technique* book was published in 1967, new findings in the field of acoustics and resonance refute some of Vennard’s information on the subject.

Stark, *Bel Canto*, and Johan Sundberg, *The Science of the Singing Voice* (DeKalb, IL: Northern Illinois University Press, 1987).

undergraduate student achieve a full, resonant, singing voice. She did concede that if a teacher has the right equipment, that using that equipment to visually show a student the overtones he or she is producing while singing could potentially help a student create their most resonant voice if they could commit sensations they felt while singing with a fully resonant voice to their vocal muscle memory.¹²⁴

Though she does not teach formant-concepts to her students, she has found it helpful to study acoustician Berton Coffin's research on formants in order to increase her own understanding of resonance. Coffin wrote, "It so happens that the various tongue, jaw, lip, and palate movements bring about the certain frequencies in the throat which vary slightly between male and female voices and between different voice classifications. There is a word formant created by Herman, the physicist, in 1890. It is not known why this word was used, unless he was referring to forms of the throat which give these frequencies. I prefer the word resonance, because a singer is very interested in resonance and so is his audience because centered resonance carries better and is the core of the voice."¹²⁵ Where there is a great deal of research on acoustics, it does not relate to Cortina and her method of teaching undergraduate voice students, therefore, a detailed study of acoustics lies outside the realm of this paper. For singers and voice teachers who are seeking information on acoustics see *The Science of the Singing Voice* by Johann Sundberg.¹²⁶

¹²⁴Raquel Cortina Interview. August, 2011.

¹²⁵Coffin, *Coffin's Overtones of Bel Canto*, 165.

¹²⁶Sundberg, *The Science of the Singing Voice*.

See also:

Coffin, *Coffin's Overtones of Bel Canto*; Katherine Verdolini, Kate DeVore, Scott McCoy and Julie Ostrem, *Guide to Vocology* (Denver: National Center for Voice and Speech, 1998); and McCoy, *Your Voice: An Inside View*.

Another pedagogical technique that some teachers utilize when teaching resonance is demonstration. Some believe that if they demonstrate a fully resonant sound, the students will imitate by instinctively shaping their pharynx, mouth, and vocal tract to match that of the teacher, and thus are able to feel the sensations of a resonant voice. Leyerle wrote that he does use demonstration at times because he finds that “by demonstration, it may be easier for the student to grasp certain insights.”¹²⁷ Cortina agrees that this line of teaching may yield quick results in a student, but that the student may not be able to recreate the resonance without their teacher present because the student does not know what he or she did to produce such resonance. Cortina made it clear that she prefers not to demonstrate, because she feels that imitation does not teach a student as effectively as taking the time to explain vocal technique and then having them find the sensations on their own.

She has also found that young students who are trying to imitate their teacher’s resonance will not be able to only recreate the teacher’s resonance; they will also recreate their teacher’s vocal color. “You can imitate your teacher and come up with a mature sound, but it will not be unique and the student will not have gained any knowledge. Imitation really only works on the rare occasion that the student and teacher share the same vocal colors and shapes of their resonating cavities and if a student has strong ‘VMM.’ I am very proud to say that no two of my singers will sound alike.”¹²⁸ Finally, she does not demonstrate resonance, in particular, because she feels that, for some students, the act of singing in a fully resonant voice would intimidate a young singer

¹²⁷Leyerle, 40.

¹²⁸Raquel Cortina. Interview. August, 2011.

whose own voice does not sound at all similar to his or her teachers fully-developed voice.¹²⁹

Cortina does agree that it is important for young singers to have a sound quality in mind that they can emulate as they are still developing their unique voice. For this, she suggests that after a student has learned the notes, rhythms, and correct pronunciations for their repertoire, that they should listen to recordings of at least three prestigious opera singers perform their repertoire. “I ask that the recordings they listen to are recordings of fine singers – not just any YouTube teenager singing. I want them to listen to three singers because if they listen to just one or two, they will memorize either sound, and try to sound just like that singer. If they listen to three they will compare and think critically and hopefully will not take on the characteristics of one singer. I can usually tell if a student comes to his or her lesson and has only listened to one singer.”¹³⁰

To create the optimal resonating space in the pharynx, mouth, and vocal tract, Cortina agrees with Vennard that the gently lowered larynx, open throat, and lifted soft palate (which closes the nasopharynx) are the main technical aspects which will help to create a resonant voice.¹³¹ Giovanni Battista Lamperti was also an advocate of humming to teach vocal technique. He wrote, “the hum in the voice is the unifying principal,” and that the hum is “the bridge connecting voice and breath.”¹³² Leyerle writes of the advantages to humming stating that humming can help a student feel mask placement, it

¹²⁹Raquel Cortina. Interview. August, 2011.

¹³⁰Ibid.

¹³¹Vennard, 92-95.

¹³²Lamperti, Giovanni Battista, *Vocal Wisdom* (New York: Taplinger Publishing Company, 1931), 104-105.

can promote the relaxed throat, it can be a tool for “marking” while studying vocal literature, and finally “correct humming is an excellent way to warm up the voice.”¹³³

I use a lot of humming exercises in my studio to teach resonance. I think humming is healing. It is very difficult to cause any vocal problems with humming. When a person is new to classical technique, or when a singer comes back to singing after a sickness, surgery, or a long break from singing, humming and alternating humming with simple vocalizations will bring the voice back in a very healthy, easy manner. Humming is the secret to resonating. If you cannot hum it, you cannot sing it.¹³⁴

Cortina does acknowledge that humming can become tiring on the voice, so she uses short, three-note exercises that include humming. She emphasized that humming will be disadvantageous if the student tenses their jaw or tongue while humming. This awareness of the possible negative outcomes of humming reflects her influence by Vennard who wrote about what teachers must avoid when using the hum as a teaching tool or vocalise.¹³⁵ She has found that the main muscles that students often tense during this exercise are the risorius muscles which, when engaged, spread the lips horizontally. From the beginning of these humming exercises, she emphasizes the importance of a relaxed musculature for proper humming. “I go from the known to the unknown: I ask them to say ‘umm-hmmm.’ That is a sound we all make in normal conversation when we agree with something somebody says, and it is an example of perfect humming. Then I just ask them to elongate that sensation.”¹³⁶

¹³³Leyerle, 107.

¹³⁴Raquel Cortina Interview. August, 2011.

¹³⁵Vennard suggests an “oral or buccal hum in which the velum is arched” and “feeling the hum on the lips” in order to maintain a relaxed jaw.”
Vennard, 173.

¹³⁶Raquel Cortina Interview. August, 2011.

When they are humming correctly, she asks them to identify and feel the resonance that occurs in their pharynx, nose, and sinuses. This sensation will be the main focus of the second humming exercise which includes phonation. When a singer accesses the resonating capabilities of the mouth, pharynx, and sinus cavities while singing, this is sometimes referred to by Cortina and other pedagogues as singing with ‘forward placement,’ or singing ‘in the mask.’¹³⁷ These two phrases are part of Cortina’s more traditional imagery-based pedagogical philosophy. Vennard, though thoroughly scientific in his methodology, agrees that imagery is useful in the teaching of resonance.¹³⁸ Vennard explains that “the illusion of ‘placement’ grows out of real sensations of sympathetic vibration” found in the resonating cavities.¹³⁹ ‘Forward placement’ is a useful phrase because it can create, for a student, a visual image of the direction of resonance which originates in the vocal tract, enters the resonating cavities, and travels, in a forward motion, out through the mouth. Though asking a student to ‘place the voice’ anywhere is impossible, the image of the sensation it creates has been useful for Cortina in her lessons on resonance. Leyerle explains, “Mask resonance is the physical sensation a singer feels at the forward section of the hard palate, both above and below, which is due to sympathetic vibrations caused by phonation. It is a reaction, not an action. It is an

¹³⁷“Regarding ‘nasal’ resonance, Vennard conducted experiments that demonstrated that the nasal cavity was unimportant in singing (Vennard, 1964), while more recently Sundberg discounted the importance of both the nasal cavity and head and chest resonances as ‘not relevant to the major acoustic properties of the vowels produced in professional operatic singing’ (Sundberg, 1977a, 91). Nevertheless, from a practical point of view, it is often more effective to suggest to the voice pupil, ‘Get the voice forward,’ than to say ‘Try to get more second-formant resonance in your tone.’”

Stark, 55.

¹³⁸Vennard, 149.

¹³⁹Ibid.

effect, not a cause.”¹⁴⁰ Cortina believes that through imagery and the use of humming in combination with an understanding of anatomy and the functions of the body parts, a student will begin to feel the resonance ‘in the mask’ and then they will be able to recreate that resonance when they sing.

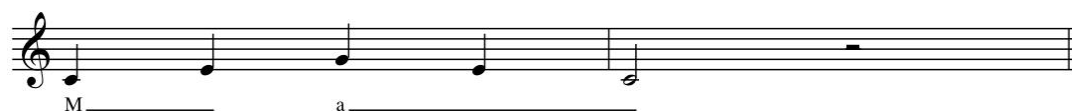


Figure 5. Humming Exercise Part Two

Cortina continues to incorporate humming in her next vocal exercise, but in this second humming exercise, she instructs the student to hum and then open their mouth and sing a pure “a” vowel. “To me the ‘a’ vowel is the basis where all the other vowels come from. I have found that if they can sing ‘a’ well, they will easily be able to sing all other vowels. Some teachers may not agree. For example, some German teachers might instruct singers to work on the umlaut vowel first. I believe that pure, forward, and open singing is best achieved through mastering the ‘a’ vowel.”¹⁴¹

Some teachers would introduce the term *chiaroscuro* at this point. *Chiaroscuro* is an Italian word which translates as ‘clear-dark’ or ‘bright-dark.’¹⁴² In James Stark’s *Bel Canto*, the term is traced throughout its history.¹⁴³ He writes that *chiaroscuro* describes a voice which has “a bright edge as well as a dark or round quality in a complex texture of

¹⁴⁰Leyerle, 40.

¹⁴¹Raquel Cortina Interview. August, 2011.

¹⁴²Stark, 33.

¹⁴³Ibid.

vocal resonances."¹⁴⁴ Stark defines resonance in terms of *chiaroscuro* as an interaction between the laryngeal source and the resonating system which interact to create a resonant sound.¹⁴⁵ He explains that the bright part of the voice, the *chiaro*, is important, but the resonance of the voice comes from an achievement of *scuro*- the dark and round aspects of the voice. Stark also writes that the main resonating space in the body is the ‘resonance tube’ that lies between the glottis and the mouth and nose.¹⁴⁶ Cortina does not use this term: “I have found that the term *chiaroscuro* gives implications that make the students change the position of the larynx and lift the tongue to create a dark sound. I feel that a student creating a dark tone is very dangerous for that student’s vocal health.”¹⁴⁷ She, instead, uses the word “forward” in place of the word ‘*chiaro*’ and the word “resonant” in place of the word ‘*scuro*’ when helping a student find their optimal singing quality.¹⁴⁸ She takes this language in part from Vennard, who describes the ideal tone as being “focused in the front with roundness and depth in the back.”¹⁴⁹ Leyerle also advocates frontal placement by using the image of the mask, and he uses the image of the inverted megaphone to teach resonant space in the back of the mouth and in the pharynx.¹⁵⁰

¹⁴⁴Stark, 33.

¹⁴⁵Ibid, 33-56.

¹⁴⁶Ibid, 34.

¹⁴⁷Raquel Cortina Interview. August, 2011.

¹⁴⁸Ibid.

¹⁴⁹Vennard, 215.

¹⁵⁰Leyerle, 38.

When students sing the “a” vowel, though, she advises them that their voiced “a” must come directly from the space they created in the mouth and vocal tract when they were humming. She instructs that they must glide from the hum to the open vowel without pause or any type of break in the sound. She warns, however, that “if they make any adjustments to their mouth, pharynx, or soft palate before they open to the ‘a’ vowel, they oftentimes depress the larynx and resonance is lost. They need to trust the space of the hum.”¹⁵¹ Cortina described that when they hum, they access the resonating space in the pharynx, sinuses, and nose, and she wants them to learn how to keep that resonance when they sing. To explain this further, she will sometimes use her anatomical model of a human larynx to show the student the different parts and functions of the larynx.¹⁵²

The final element of this second humming exercise is the consonant that the student applies when opening to the various vowels. The instinctual consonant a singer will use when going from a hum to an “a” is the consonant “m” resulting in the sound “ma.” This syllable, “ma,” is one of four different syllables that Cortina has found useful for this exercise. The other options she uses are “nya,” “ga,” and “va.” Vennard also experiments with consonant usage and suggests that teachers should find those consonants which “bring the tongue to the front and develop [tongue] flexibility.”¹⁵³ Cortina’s use of the “nya” syllable reflects her Leyerle influence, because he uses the

¹⁵¹Raquel Cortina Interview. August, 2011.

¹⁵²In brief, the larynx is the main organ of phonation but its muscles and cartilages cannot be consciously controlled by the singer, so singers must learn to manipulate the attaching muscles in order to affect the larynx and vocal tract.

Leyerle, 19.

¹⁵³Vennard, 215.

syllables “na,” “ne,” “ni,” “no,” and “nu” for one of his vocal exercises.¹⁵⁴ She includes the “y” sound because she feels that consonant sound helps the voice focus and remain forward and resonant.¹⁵⁵ In this exercise, as in all exercises detailed in this study, Cortina uses the five “cardinal vowels” in combination with each consonant option. She experiments with each student by vocalizing them with all four syllables. When she hears them sing each syllable she assesses which one will be the most beneficial for each individual student. For instance, students with tongue, cheek, or jaw tension might benefit from “ma” or “ga,” while a student who has difficulty keeping the resonance in the mask while they sing may find the very frontally placed “nya” or “va” helpful.

I listen to the way the student is producing the syllables and then assign a vocalization syllable accordingly. Once a comfortable vocalization syllable is found, I discuss thoroughly with the student as to what it is that this syllable is creating inside the mouth such as, relaxation of the tongue, elevation of the soft palate, relaxation of the jaw, lowering of the larynx, etc. My favorite and most workable vocalization syllables are: “nya, nye, nyi, nyo, nyu”; “ga, ge, gi, go gu,” and “va, ve, vi, vo, vu.” These syllables, used either singly or in combination with other syllables, usually get the tongue out of the way, relax the larynx, and comfortably elevate the soft palate. Sometimes the alternation of “ma” and “ga” will help exercise the tongue in the correct way while relaxing the jaw and the larynx. I believe that the correct pronunciation of the chosen syllables used during their daily vocalization should create a healthy and natural sound with an optimal resonating space.¹⁵⁶

¹⁵⁴Leyerle, 71.

¹⁵⁵Raquel Cortina Interview. August, 2011.

¹⁵⁶Raquel Cortina Interview. August, 2011.

Cortina’s meaning of the “lowering of the larynx” shows her influence by Leyerle who refers to the “medium-low larynx” that is achieved when the throat is opened without tension and the resultant sound is full and free.

Leyerle, 24.

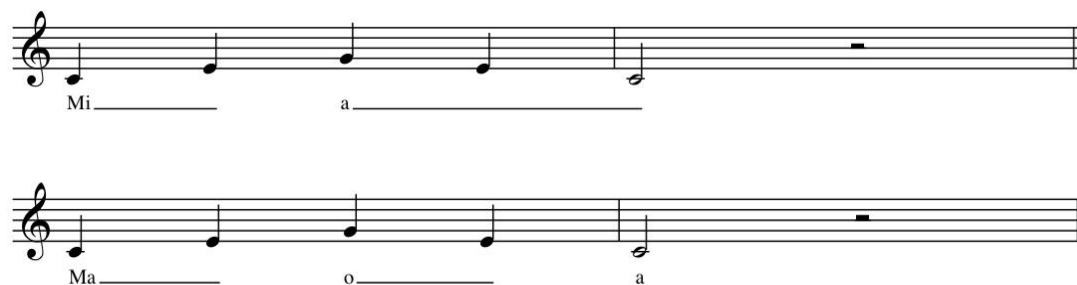


Figure 6. Humming Exercise Part Three

In the final variation of Cortina’s humming exercises, she adds a second vowel to the previous exercise and shortens the duration of the hum for an added level of technical difficulty. This version challenges the student to find and maintain the resonance in the mask with only the briefest hum at the onset of the vocalise. With this exercise, she introduces the concept of vowel-equalization which will be discussed in more detail in the following exercise. There are also various versions of this exercise that she assigns based on individual students’ needs. For example, a student who has the tendency to pull their mouth into a spread or horizontal shape may be assigned vowels such as “o” or “u” which she will then ask the student to transition into an “i” vowel in order to keep the relaxation, resonance, and vertical feel of the “o” or “u” vowel when singing the “i” vowel. A common version she assigns to undergraduate singers includes the transition from the “mi” syllable to the “a” vowel in order to help the student maintain the bright and focused quality of the “i” vowel into the “a” vowel. Vennard writes that “this quality of ‘point’ or ‘focus’ is the prime essential of good tone” and suggests alternating between “a” and “i” to find that focus.¹⁵⁷

¹⁵⁷Vennard, 150-151.

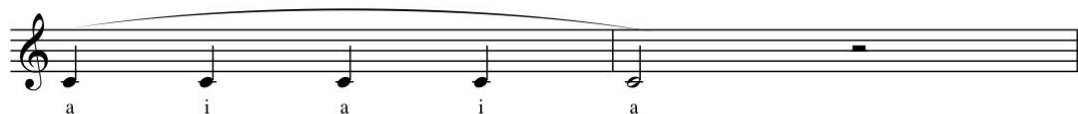


Figure 7. Equalization of Vowels Exercise Part One

One of the hallmarks of classical singing is the seamless quality that is achieved mainly by legato singing. The legato quality is due, in part to an ability to sing text without having to interrupt phonation at all during phrases. Leyerle describes the ideal legato as sounding like a long line of rectangles, which represent sung vowels, with consonants between the rectangles -but not causing empty space between the rectangles.¹⁵⁸ It is a challenge for young singers to sing vowels and consonants without any abrupt changes to the sound. Cortina borrows Leyerle’s terminology when she describes singing which is not legato as sounding like “links of sausages;” thus describing the interrupted quality of the sound.¹⁵⁹ In these vowel-equalization exercises, Cortina hopes to help her students sing and transition between vowels in an effortless way. Exercises which target this very important element of singing challenge the students to move their voices through multiple vowels without tension or alteration of resonance.

Oftentimes young singers attempt to create the different vowels by moving their jaw to create each vowel. Although the jaw definitely moves to create consonants and does move very slightly to shape the vowels, Cortina explains to her students that mainly the shape of the mouth and tongue are responsible for vowel creation. She stresses that large jaw movements are unnecessary and detrimental to legato singing. Vennard suggests that teachers remind students that the jaw was not created for speech or singing,

¹⁵⁸Leyerle, 78.

¹⁵⁹Ibid; and Raquel Cortina Interview. August, 2011.

but for chewing.¹⁶⁰ In Vennard's section on consistency of the vowels he writes about how little the jaw must move between the vowels.¹⁶¹ He describes that young students must experience the openness that can be achieved through all the vowels; even the "i" vowel: "most singers do not realize how much opening is possible without loss of the characteristic "i" flavor."¹⁶² He also encourages exercises in which students are asked to alternate between vowels in order to find the consistency in color between them.¹⁶³

A relaxed jaw is often very difficult for young singers to achieve. "They usually complain that their jaw feels stiff when I ask them not to move it as often as they are used to doing. I tell them that at first it will feel that way but eventually they will be grateful for the ease of vowel formation and the small degree of work they have to physically do to create the different vowels."¹⁶⁴ To help a student relax their jaw, Cortina will sometimes suggest that they place their hands lightly on either side of their face as they work on these exercises so that they notice when their jaw moves. Leyerle's influence on Cortina's methods are apparent here, because he also focuses on the importance of the dropped jaw: "it has a relaxing effect on all adjacent muscles, it reinforces the feeling of openness of the throat by adding a sensation of width, as well as depth, and it establishes a position which facilitates balance with aspects of phonation."¹⁶⁵ Such attention to one body part could be frowned upon by some teachers. There are teachers who would argue

¹⁶⁰Vennard, 98.

¹⁶¹Ibid, 144-147.

¹⁶²Ibid, 145.

¹⁶³Ibid.

¹⁶⁴Raquel Cortina Interview. August, 2011.

¹⁶⁵Leyerle, 27.

that calling attention to the jaw specifically would result in a student who will be obsessed with holding their jaw in perfect stillness. These voice teachers try to use images and descriptive words to refocus the student's attention in hopes that their jaw will relax in so doing. They will teach with phrases such as "imagine that energy is shooting up to the sky from the top of your mouth as you alternate between 'a' and 'i,'" or some similar type of image in the hopes that a redirecting of focus to the top of the mouth will result in a relaxed lower jaw. Cortina does not discredit that this may work for some teachers and students, but she feels it is important for a student to identify exactly what is causing their difficulty. "You see, if the teacher uses vague imagery, or does not put specific emphasis on technical aspects of singing, then the students will sing correctly sometimes and incorrectly other times but not know why each outcome occurred."¹⁶⁶ She stated that when a student is practicing without the teacher and finds that he or she is having difficulty, if they have the information, then they will be able to look in the mirror, identify exactly what the problem is, and fix it on their own. "I want them to have the technical knowledge of their craft. They need to know what they've done right, what they've done incorrectly, and how to fix it on their own. I teach them to be able to do without me."¹⁶⁷

The "i" vowel gives a majority of students the most difficulty, according to Cortina, because they find it challenging to maintain resonance during phonation of that vowel. She explains to such students the importance of maintaining space in the back of the mouth while the tongue is high in the front of the mouth forming the "i" vowel. She uses the act of yawning to teach students the sensation of resonant space. She asks

¹⁶⁶Raquel Cortina Interview. August, 2011.

¹⁶⁷Ibid.

students to yawn and to then notice and feel the space in their mouths as they yawn. Cortina's influence by Leyerle is apparent during her instruction of the yawn: she explains aspects of the yawn which must be avoided when using the yawn as a pedagogical tool, and they are similar to Leyerle's warnings against the depressed larynx, the neck which expands outwardly, a depressed base of the tongue, and tense or rigid extrinsic muscles of the face and throat during yawning.¹⁶⁸ Vennard also uses the yawn as a pedagogical tool but he specifies that students should keep their focus on the sensations felt at the beginning phase of a yawn and not towards the end of the yawn where the jaw unhinges.¹⁶⁹ He also asserts that "the yawn is the most usable of the reflex methods of lowering [the larynx]."¹⁷⁰ The use of the yawn provides another example of how Cortina works from the known – because students are familiar with the sensations of yawning, to the unknown –the concepts and sensations of resonant space. She would explain that the "space of the yawn," or resonant space is created by a lifted soft palate, lowered larynx, flat back-portion of the tongue, and open throat.¹⁷¹ Cortina's instructions here are similar to Vennard's language he uses when describing his instructions to his students: "vocalises have definite mechanistic objectives, the low larynx, the loose jaw, the forward tongue, the exposed edge of the upper teeth, etc."¹⁷² While explaining resonance, Cortina will sometimes also use her anatomical models of the larynx and torso to explain the anatomy

¹⁶⁸Leyerle, 23.

¹⁶⁹Vennard, 113.

¹⁷⁰Ibid, 213.

¹⁷¹"Briefly stated, the open throat is a large [extended] pharynx." It is also of note that when a student manages to lift, or more accurately, stretch the soft palate, the larynx lowers in reaction; so the two events occur simultaneously.

Leyerle, 22-26.

¹⁷²Vennard, 219.

of the vocal mechanism. With these models she illustrates how large the tongue is, where the soft palate is and what the larynx looks like. After they have a solid understanding of this information, she continues with the instruction of this vowel-equalization exercise.

In this first vowel-equalization exercise, she instructs a student to sing the “a” and “i” vowels back and forth without jaw motion. Cortina hopes that this will help a student work solely with their tongue to create both vowels. This exercise challenges a student to alternate between these two vowels to find the ease in the movement and equal resonance in the vocal production of both vowels.

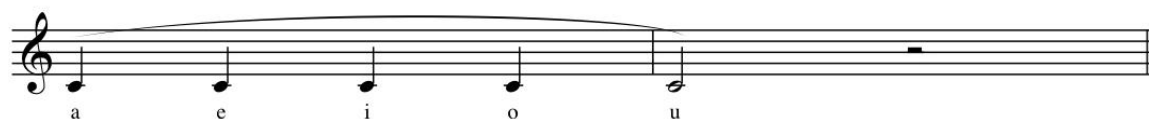


Figure 8. Equalization of Vowels Exercise Part Two

The second equalization of vowels exercise that Cortina assigns to her students uses all five “cardinal vowels:” “a,” “e,” “i,” “o,” and “u” sung on one tone. She works with students to find the sequence of the vowels that is most advantageous for each individual student, but she has found that most students work well with the sequence “a,” “e,” “i,” “o,” and “u.”

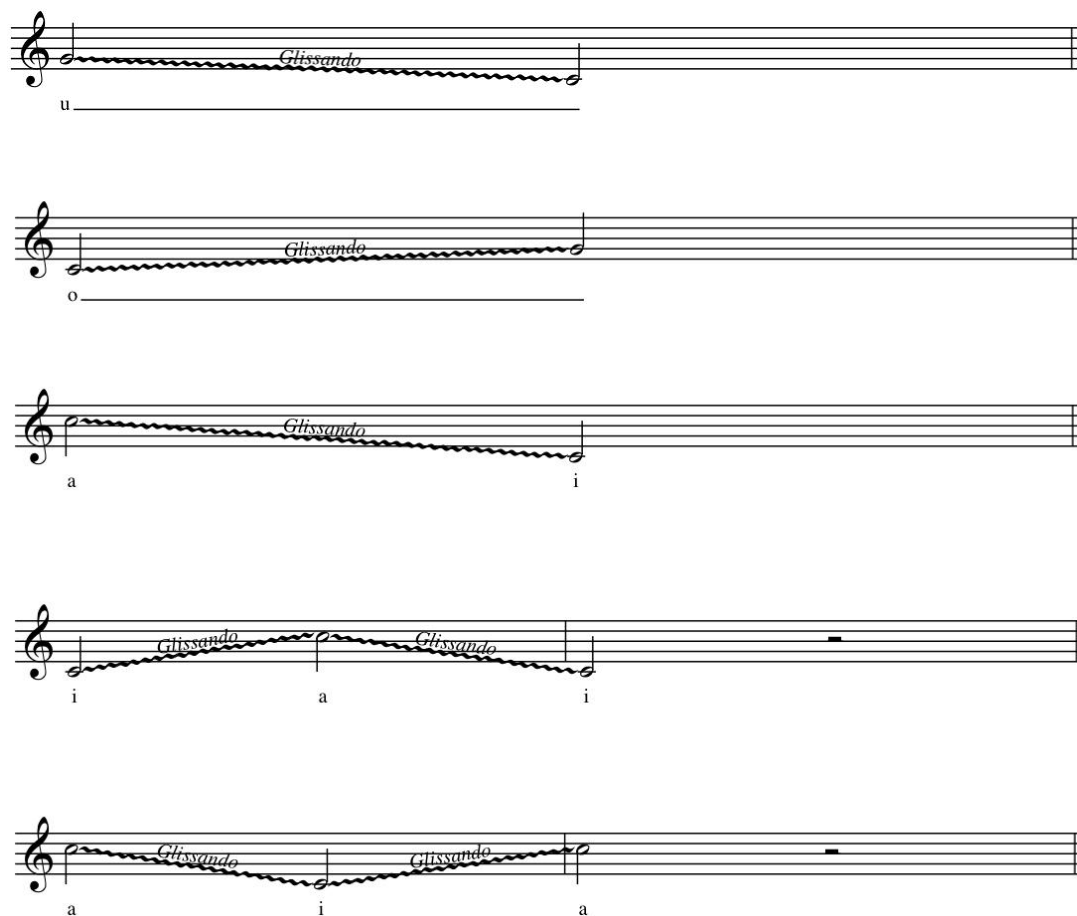


Figure 9. Block Scales

Otolaryngologist, professor, and singer Robert Thayer Sataloff suggests that block scales, vocal exercises where the singer slides the voice over a large interval without clear note delineation, are excellent for warming-up the voice.¹⁷³ Cortina stated, “When students sing these block scales, I tell them to slide between the notes very slowly and not to worry about vibrato. We’re not after *bel canto* at this point, just unification of the sound through the registers.”¹⁷⁴ Leyerle’s sliding scale exercises, which he sometimes refers to as the radar vocalise, are similar to the block scales Cortina teaches with as well

¹⁷³Robert Thayer Sataloff, *Professional Voice: The Science and Art of Clinical Care* (San Diego: Singular Publishing, 1998), 493.

¹⁷⁴Raquel Cortina Interview. August, 2011.
Bel canto, is an Italian phrase with translates as ‘beautiful singing.’

and he also suggests students refrain from singing with vibrato during these exercises.¹⁷⁵ He explained that singing without vibrato for this vocalise “eliminates another variable so more attention can be given to coordination of support, phonation, and resonance.”¹⁷⁶ Some teachers assign similar exercises that they describe as “siren” exercises because they are similar to the “siren” of a police car. Cortina’s block scales were inspired in part by Vennard’s “yawn-sigh” exercises. Vennard described his “yawn-sigh” exercise - “it consists simply of simulating a yawn and exhaling gently and vocally. The only requirement is that it should not be breathy, but that it should have a clean attack, and should sound with a bell-like quality.”¹⁷⁷ These “siren” or “yawn-sigh” exercises, though, often do not have a particular starting and ending note. Block scales, for Cortina, encompass the interval of a third, a fifth or an octave. Since the voice slides through the intervals during block scales, Cortina believes that they help a student learn how to sing intervals in a smooth and effortless way. She noted that they are particularly helpful for students who struggle with negotiating between their vocal registers.

Registers

Vocal pedagogues differ greatly on their theories on vocal registers; how many exist, how to teach them, and how to help a student blend them into a voice that sounds unified throughout the range. Registration is a difficult subject to discuss because the term vocal register has many meanings. McKinney explains that definitions of register include “a particular part of the vocal range (upper, middle, or lower register), a resonance area (chest or head), a phonatory process, a certain timbre, and a region of the

¹⁷⁵Leyerle, 138-139.

¹⁷⁶Ibid.

¹⁷⁷Vennard, 211.

voice which is defined or delimited by vocal breaks.”¹⁷⁸ No matter what a teacher’s philosophy is regarding registers, though, the end goal in classical singing remains the unification of the singing voice.

Register, defined as a phonatory process, refers to the physical shapes and changes the vocal folds undergo as the singer phonates up and down their range. Garcia was the first to write about the physical changes of the vocal mechanism. Stark explains Garcia’s ‘mechanical principle: “In the chest voice, the vocal folds vibrate throughout their length and depth; in the falsetto-head register only the inner margins of the vocal folds vibrate, so that the vibrating mass is smaller.”¹⁷⁹ In very simplified terms, the vocal folds are short and thick as a singer sings low tones and, through a laryngeal adjustment, the vocal folds become long and thin as a singer sings higher tones.¹⁸⁰ Creating a smooth transition between those two positions is what makes a seamless vocal production possible. Vennard describes these two positions as two registers and terms them “heavy mechanism” for chest voice and “light mechanism” for falsetto or head voice with a *voix mixte*, or mixed voice, used transitionally between them.¹⁸¹ Leyerle also follows the two register system.¹⁸² Vennard is an example of a pedagogue who uses the physical process to define the registers into two categories.

¹⁷⁸McKinney, 93.

¹⁷⁹Stark, 69.

¹⁸⁰Vennard, 60.

¹⁸¹Ibid., 66-67.

Some of Vennard’s acoustical assertions in regards to registration have been challenged due to modern technological findings.

William M. Jones "Investigation of William Vennard's Light Mechanism Principle in the Adolescent Female Voice by James Farland Bottoms," *Bulletin of the Council for Research in Music Education* No. 136 (Spring, 1998), pp. 60-62.

¹⁸²Leyerle, 58.

Though most teachers are aware that physically, the folds do change, and the larynx makes adjustments as a singer sings between their high and low ranges, some believe that it is unhelpful to segment the singing voice into registers at all. Vennard calls this one-register approach the “Idealistic Approach” because it describes a teaching philosophy based on the end result of a unified voice.¹⁸³ One positive psychological aspect of this approach is that the singers do not focus on the *passaggi*, or breaks in the voice which occur when a singer transitions between registers. When not negotiated smoothly, singing over the *passaggi* will result in an undesirable vocal quality in a classical singer.¹⁸⁴

A third type of registral theory is based on the different parts of a singer's range: low, medium, and high. Vennard describes this three-register system as “The Realistic Approach,” and it is the category in which Cortina belongs.¹⁸⁵ Cortina thinks of the male voice as including the chest, head, and falsetto registers, and the female voice as including the chest, middle, and head registers. Since she believes there are three registers, she recognizes two transitional points between them: *passaggio primo* and *passaggio secondo*.¹⁸⁶ Although Cortina has these delineations in mind when she teaches, she does not identify the registers or *passaggi* for her students. She usually advocates that students understand the functions and different processes of the singing voice, but she does not initially give an explanation of registers or *passaggi* to her

¹⁸³Vennard, 66-69.

¹⁸⁴The Italian word *passaggio* translates as passage. *Passaggi* is the plural form of this word.

¹⁸⁵Vennard, 66-69.

¹⁸⁶Raquel Cortina Interview. August, 2011.

undergraduate singers. In other words, Cortina could be described as teaching “The Idealistic Approach” while believing “The Practical Approach.”

After a student can successfully sing block scale exercises that Cortina assigns, she hopes that they will feel their voice move through the high, medium, and low ranges with a unified sensation of vocal production. When a student cannot negotiate the *passaggio* smoothly during a section in their song literature, Cortina will return to the block scale once again. She asks them to block the troublesome interval in order to help them negotiate their *passaggio* during that particular phrase. Cortina stated that if a student is curious about registers and *passaggi*, only at this point, after the student has had the experience of feeling the sensations of a unified voice, will Cortina explain to them the definitions of the terms and the laryngeal shifts that occur between registers.

At this time Cortina reveals another part of her teaching philosophy which includes a more traditional, imagery-based technique. One image she uses during her explanation is that of a car shifting gears. Using this image adheres to her philosophy of working the unknown from something the student already understands.

I talk to my students about the resemblance of our *passaggi* to the transmission of a car as it shifts gears. Even if the student drives an automatic car, they can still hear the car sounds change as it shifts gears as they accelerate. I explain that in an automatic car, you can hardly feel the change because the car executes the change so smoothly. This is the same with the voice. Now if there are problems with your car’s transmission, the change will not occur so smoothly! Most pop singers do not work on smoothing out the breaks in the voice. For example, a soprano pop singer will carry the chest register very high, and when she cannot carry it any higher and she shifts into her head voice, the break is completely audible and it is not smooth at all. This is what we want to avoid in classical singing.¹⁸⁷

Cortina has found that block scales are so helpful for creating a unified sound throughout a student’s range, that she assigns three or four different blocked exercises to

¹⁸⁷Raquel Cortina Interview. August, 2011.

each student. This document includes only a few of the various block scales she will assign to students based on their individual vocal challenges.

After the student understands the block scales and can execute them with ease, Cortina challenges them to sing the same intervals without sliding between the notes. She then assesses how the student manages to incorporate technique using this exercise to see if they can carry the relaxation and unification without the slide in between the notes. During this second block exercise, she asks the student to sing the same intervals as they did in the first exercise, but without the blocked quality. If, while the student is attempting this new task, they have difficulty keeping the voice smooth between the intervals, Cortina will ask them to alternate between blocked and leaped versions of the exercises until they can sing smoothly over large intervals without the blocked scales.



Figure 10. Flexibility

The final portion of Cortina's vocal warm up regimens that she assigns to her undergraduate students consists of exercises that encourage vocal agility or flexibility. The focus of this exercise, Cortina stated, is to get the voice moving quickly and accurately. During these exercises, Cortina requires her students to work with a metronome. Cortina warned that if the student does not use a metronome during agility exercises, the voice will move in an uneven way. She assigns various exercises which

address vocal flexibility, but the one she uses for most undergraduate voice majors is a simple five-note ascending and descending scale sung with the alternation of the vowels “i” and “a”. She also advises students who are struggling with vocal agility to purchase either Ferdinand Sieber’s book of vocal exercises, or for more advanced students, Heinrich Panofka’s book of vocal exercises to give students additional material when they needed help with vocal flexibility.¹⁸⁸ “When I have a student whose voice is not moving in an easy manner, I will be sure to assign literature that moves the voice. We will then work on agility through the repertoire.”¹⁸⁹

Cortina’s Approach to Teaching Literature: Song Approach

Once the students understand the basis of Cortina’s technique and understand how to vocalize on their own, then she begins to work with the students on their song literature. Cortina does not require the student to come to the first few repertoire lessons ready to sing with the text. Instead, she teaches technique through the repertoire by having the students sing their repertoire, for a few lessons, using nonsense syllables in place of the text. Depending on how the student is adjusting to his or her assigned nonsense syllable for their vocalization regimen will decide if the same syllable will be used while working on the song literature. For example, if a student was assigned “nya, nye, nyi, nyo, nyu” for vocalizations, but comes to the next lesson complaining that the syllable is proving to be difficult for them, then Cortina may have that student sing the literature on “ga, ge, gi, go, go,” and will continue to experiment with syllables

¹⁸⁸Heinrich Panofka, *Vocalizzi* (Rome, Italy: BMG/Ricordi, 2006), and Ferdinand Sieber, *Vocalises* (New York: Schirmer, 1899).

¹⁸⁹Raquel Cortina. Interview, 2011.

throughout the lesson. Usually, though, the syllable that Cortina assigned for vocalization is the same that will be used in the first few lessons of working the literature.

During these lessons spent vocalizing on the literature, Cortina requires that students be prepared to sing all of their assigned literature with the nonsense syllables. At this point in the semester, the studio accompanist joins Cortina and her student in the second halves of these lessons, and the student is expected to be able to sing through his assigned literature. The first halves of these lessons are spent between the student and Cortina. Cortina uses this time to go over diction with the student and she asks the student questions regarding the composer and the subtext of the piece. She expects the student to have the notes, rhythms, and dynamic markings learned for at least three pieces of their assigned repertoire by the third or fourth lesson, (depending on how quickly the student was able to learn Cortina's basics of technique). Cortina was adamant when she stated that she refuses to teach a student the fundamentals of music and will not accept students who cannot teach themselves these basics. During the first lesson, she gives each student a schedule that clearly shows that by the third or fourth lesson they must be prepared to sing their literature *a tempo* and using nonsense syllables.¹⁹⁰

Some teachers would argue that teaching the students to sing with correct pronunciation in foreign languages is such a daunting task that it needs to begin at the onset of the semester. Others who are adamant about vocalizing the students for the first portion of every lesson might also disagree with Cortina's process of vocalizing through the literature. Cortina has found, however, that if a student works hard enough on the language, that the language will not take as much time as she feels needs to be allotted to

¹⁹⁰The Italian phrase *a tempo* translates into 'to time.' In this context, this phrase indicates that the student must be able to sing the song literature at the tempo indicated by the composer.

the instruction of vocal technique. She stated that in her experience, having a student who must re-learn technique or pronunciation is more difficult than having that student learn the material correctly from the beginning of the process. “Why set up an undergraduate student to fail by demanding that they come back to the next lesson with perfect foreign language pronunciation when the voice teacher has not yet taught the correct pronunciation to them?”¹⁹¹

As the students vocalize on their song literature, Cortina listens for passages which give the students difficulty. When one such moment arises, she will stop the student and work that phrase like it was a vocal exercise. This aspect of Cortina’s methodology stems from Vennard who also wrote “rather than practice synthetic drills, I prefer to make exercises of the difficult passages in actual songs.”¹⁹² For example, she may use a block scale if the student is having a hard time keeping a unified sound over a large interval, she may ask the student to lip trill the phrase for jaw and tongue relaxation, or she might ask the student to hum the passage to re-focus their vocal placement towards the mask. Cortina explained that the student is more able to work technical aspects found in their literature if they do not have the added burden of a foreign language to tackle at the same time.

Some teachers may disagree with me, but I think it is very detrimental to the students to throw them into languages, technique, and artistry at once and expect them to produce a beautiful singing sound in a healthy way. To me, singing is like juggling: if you don’t teach the student to juggle with two balls first, then they cannot do three! You can’t throw all three balls at them at once - they’ll just drop them all. So when the students vocalize on their song, they are learning technique,

¹⁹¹Raquel Cortina Interview. August, 2011.

¹⁹²Vennard, 215.

pitches, rhythms, tempi, and dynamic considerations without the added difficulty of a foreign language.¹⁹³

Literature

After she feels that the student is able to vocalize on their songs with relatively secure technical ability, then she will begin to teach the language of the text to their song literature. She usually assigns first-semester freshmen six songs, five of which are standard Italian songs.¹⁹⁴ “Italian is the language that brings out the voice in the best way. It is a language of clear and beautiful vowels. Italian is sing-able, simple, and forward.”¹⁹⁵ The sixth song will be in German, French, or Spanish. Cortina will not assign an English art song unless the student is going to be competing in a vocal competition such as the competition held by the National Association of Teachers of Singing which requires an English piece. Cortina stressed that she does encourage her students to sing in front of an audience or judges as often as possible. Even with students for whom English is a first language, there are so many vowels in the English language that Cortina has found that it is usually one of the most difficult languages for young students to sing well. “Once they have learned how to keep the larynx in a neutral position, the soft palate lifted, and sing without tongue and jaw tension while creating pure vowels, then they can start tackling English.”¹⁹⁶ When they do work on English songs, she clarified that she does not make the students vocalize on the song, but that they begin with the text right away.

¹⁹³Raquel Cortina Interview. August, 2011.

¹⁹⁴Standard Italian songs are often found in collections such as the following:
John Keene, *Twenty-Four Italian Songs and Arias of the Seventeenth and Eighteenth Centuries* (New York: G. Schirmer, 1948).

¹⁹⁵Raquel Cortina Interview. August, 2011.

¹⁹⁶*Ibid.*

Classification of Voice Types

Another aspect of Cortina's philosophy on vocal literature is that she will not typically assign a Classical, Romantic, or Modern Era opera aria to a student until the second semester of their sophomore year or even their junior year. She did admit that she will sometimes give a freshmen or a first-semester sophomore a very introductory, light Classical aria, but only if they have proven to have a secure grasp on their vocal technique. This philosophy is also in keeping with her belief that freshmen and sophomore voice students should only sing ensemble numbers in opera scenes or opera productions. She cited many reasons for feeling this way about young singers.

Arias are strongly associated with particular *fachs*, and I strongly feel this should be avoided until a student has really worked his or her voice with me for some time. This is very difficult, because the student wants to know their classification and they want to work on operatic literature right away. They will come in and say, 'I can hit all of the notes in this aria, why can't I work on it?' I respond, 'Is singing only about being able to hit the notes? You need to be more knowledgeable about singing first. You need to learn to put feeling into your literature. We need to strengthen your voice before we test it with difficult operatic literature. Be patient.' I also explain that some of the Italian literature I assign them are arias. For example "Ombra mai fu" is an aria from *Serse* by Handel. It may not be a Romantic era aria like the ones the students are so drawn to, but it is an aria!¹⁹⁷

Cortina and other like-minded vocal pedagogues generally feel that a premature label will hinder vocal freedom and exploration. She explained that since the larynx of young singers is not fully developed, a great deal of change should be expected and encouraged, and a label will only hinder that development.

When she has been working with a student long enough, though, she follows Vennard's teachings by identifying what category their voice is leaning towards by way

¹⁹⁷Raquel Cortina Interview. August, 2011.

of assessing what *tessitura* is strongest in the student's voice.¹⁹⁸ Some teachers classify the *fach* of their student by identifying the exact points in their range where their *passaggi* fall. For example, such a teacher would hear a female singer's *passaggio secondo* fall at F#⁵ and identify her as a soprano. Though this process is used and accepted among some voice teachers, Cortina focuses on *tessitura* when she makes the classification judgment, because she believes that in young undergraduate singers, since their larynxes are still developing, that their *passaggi* will adjust as they develop. Leyerle agrees that *passaggi* cannot be the sole indicator of *fach*. He states that specific points of *passaggi* vary between individual students based on "physical maturity, size, body structure, psychological make-up, and natural and selected timbres of the voice."¹⁹⁹

Adding the Language

Cortina's process of teaching foreign language texts to students begins with the student recording her speaking the text in two different ways. First, she will speak the text with elongated vowels and in the rhythm of the literature, and then she will speak the text in a fluent manner with the natural poetic inflection. She noted that if a student has a great deal of experience with a particular foreign language, then she will bypass this process and ask the student to speak the text for her and she will help him or her with minor adjustments as needed.

Although students are able to listen, via the internet, to recordings of the literature they are assigned, Cortina warns that this should be postponed until after she has helped them with the pronunciation of the language. She has found that students hear recordings

¹⁹⁸*Tessitura* here is defined as "part of the range in which the voice performs best, both as to sound and as to ease."

Vennard, 79.

¹⁹⁹Leyerle, 60.

and instantly begin to imitate what they hear. She explained that oftentimes, they interpret the pronunciation that they hear erroneously, or the singer that the student has been listening to is singing with incorrect diction. If this is allowed to happen, Cortina warns that the singer will develop vocal muscle memory with faulty diction. The process of learning the language then increases in difficulty because Cortina must first remove the errors and then teach the language to the student correctly. She also feels strongly that the singers must use their music theory skills to learn the melodies and rhythms on their own; they should not depend on recordings for this process.

In the following lesson, Cortina ensures that the students have worked on the language and the pronunciation by asking them to declaim the text with elongated vowels in the tempo and rhythms of the song. If the student is advanced to the point where they have no trouble with articulating correct rhythms a tempo, then she will have the student speak the text with elongated vowels, but in a fluent, poetic style. In this way, Cortina hopes that the students will begin to have an understanding of their language skills and also will be able to phrase the language in an artistic fashion.

Once the student can speak the text poetically, Cortina will ask the student to sing their repertoire along with the text. Although Cortina will spend time helping the students to enunciate clearly as they sing, she confessed that she puts more emphasis on helping her students develop “beautiful, resonant singing on pure vowels” than on articulation.²⁰⁰ “I have found that if a teacher over-emphasizes articulation with young singer who has not yet found his or her resonance or vowel unification, that the student will lose their vocal freedom. The larynx will rise or become fixed, the jaw will move erratically, the

²⁰⁰Raquel Cortina Interview. August, 2011.

tongue will tighten, the soft palate will lower, etc. Now, that being said, an advanced student, of course, is expected to be able to articulate without adversely affecting their resonance or vocal beauty.”²⁰¹

Artistry or Musicality

The final step of Cortina’s process of teaching literature to students is to help them to make music out of the technique, notes, and rhythms. Though artistic expression is what makes a musician out of a technician, Cortina stressed that she will always make sure a student understands how the voice works before she begins to work with a student on expression and artistry. Vennard wrote, “A knowledge of the mechanism [of the voice] is the foundation of an objective pedagogy, and a mastery of the technique is the prerequisite for artistic expression.”²⁰² Leyerle similarly wrote “technique, then, is only a ‘door opener’ which will allow the student to proceed to the ultimate goal of singing – expression. Before he can reach that goal, he must open the door.”²⁰³ Cortina explained that since singers cannot see their instrument they have to build knowledge of their instrument and have an understanding of it before they can use their instrument to make music or address artistic concerns.

Cortina credited the teachings of Boris Godlovsky and Arthur Schoep for much of the artistic process she first leads students through as they begin to work on their literature. In Godlovosky and Schoep’s book on acting for the singer, they write that singers will find the expression and meaning in the music by researching their music and

²⁰¹Raquel Cortina Interview. August, 2011.

²⁰²Vennard, 220.

²⁰³Leyerle, x.

then answering the ‘W’s:’ who, what, where, when, and why.²⁰⁴ Cortina listed that she expects her students to do research on the poet, composer, culture of the composer and poet, time period in which the piece was composed, and that they must also memorize the word-for-word translations of their songs. Cortina quizzes her students often to see if they know and understand exactly what is happening in the song or aria at every moment. After the students complete their research, Cortina said that she then asks them to use their information to create a very detailed world in which the music is taking place. For example, she asks them to be able to see, feel, and describe the setting in which the text takes place; the atmosphere, the emotions, and the people who are also present in this imaginary world. She believes that if a student can see and feel all of this as they sing, that expression and intention will be conveyed to the audience as well. Finally, she conveyed the importance of encouraging the students to perform at this point in their development, “Every time they have two songs learned, they need to perform. They learn and grow a great deal as they perform.”²⁰⁵

²⁰⁴Goldovsky and Schoep, *Bringing Soprano Arias to Life*.

²⁰⁵Raquel Cortina Interview. August, 2011.

CHAPTER III

CONCLUSION

Through research of Dr. Raquel Cortina's influential pedagogues and their literature, and through interviews with her and her students, several elements have been identified as forming the basis of Cortina's vocal technique. These elements are the core of her technique which she teaches to vocal majors at the undergraduate level. They include Cortina's views on vocal function, posture, circle breathing, vocal muscle memory, vocal exercises including lip trills, humming exercises, equalization of vowels exercises, block scales, and flexibility exercises, vocalizing on the literature, and that through vocalization and working on the literature she addresses breath support and management, relaxation of unnecessary tension, resonance and forward placement, negotiation of the registers, vocal agility, articulation, and artistry. The objective of the study has been to describe those aspects of Dr. Raquel Cortina that are idiosyncratic: her pedagogical philosophies, methods, process of teaching, and to describe some ways in which she conveys her knowledge to her undergraduate singers. This project has been completed in hopes that the information presented will be of interest and beneficial to beginning teachers of classical voice and that it will also provide those teachers with a model of a unified method of teaching classical vocal technique to students at the undergraduate level.

APPENDIX A

TRANSCRIPT OF THE INTERVIEW WITH DR. FRANCIS, DR. BERNARD,
MR. RODRÍGUEZ, AND MR. ESPIRITU

Conducted by Kathleen G. Westfall

August 22-26, 2011

VF = Valerie Francis
DB = David Bernard
AE = Arthur Espiritu
ER = Ernesto Rodríguez
KW = Kathleen Westfall

KW: You are all professional classical singers, but can you describe your career please?

DB: After graduating from the University of New Orleans, I was accepted into the Young Artist Development Program at the Metropolitan Opera in New York City. I spent the next seven seasons singing in over 100 performances at The Met. I worked with the most elite singers, conductors and directors in the business from Placido Domingo to James Levine and Franco Zeffirelli. I also sang with various opera companies and symphonies across the United States and in the Far East. I appeared on public television both here and in Europe - singing in two "Live from The Met" telecasts as well as on NPR numerous times. I am presently Assistant Professor of Voice at Southeastern Louisiana University in Hammond, Louisiana, where I teach applied voice, diction and independent studies in advanced vocal pedagogy. I continue to sing in recital and orchestral engagements both here and abroad.

ER: I am a voice teacher and professional singer. I teach in the music department of The University of Costa Rica (UCR); generally regarded as the premier university of the Central American region in the field of music. I have fourteen students who are undergraduate and graduate singers. Additionally, I am the coordinator of the voice department. This part of my position includes directing the Etapa Basica (College-prep voice program), the university programs (undergraduate and graduate), and the Cursos Especiales de Canto, a program open to the general community. In my performing career, I am singing with the National Opera Company and other private opera companies in Costa Rica and Central America. I typically perform fifteen to twenty concerts and recitals per year. I am also co-founder of INCANTO LIRICA, a private company which books performances around this country.

VF: Here is my abridged biography: "University-educated at Dillard University, the University of New Orleans, and the University of Oklahoma, Dr. Francis received her Bachelors, Masters and Doctoral degrees respectively. Dr. Francis received her classical training in the distinguished studios of the late Dr. Thomas Devore Carey, OU; Dr. Raquel Cortina, UNO (present teacher) and Mr. S. Carver Davenport, DU. Ms. Patricia Sallier-Seals, McDonogh #35 Senior High, and Mr. Warren Williams, Sr., former choir director/organist of Free Mission Baptist Church also greatly contributed to her

development as a young singer. Dr. Francis also attended the American Institute of Musical Studies in Graz, Austria. While a student at the University of Oklahoma, she was one of the first recipients of the Carol Brice Carey Scholarship. In 1994, she won the District Auditions and placed first in the Regional Auditions of the Metropolitan Opera National Council Auditions, where she represented the Gulf Coast Region at the Metropolitan Opera House, Lincoln Center in New York City. Dr. Francis has appeared in title roles with the University of New Orleans Opera, Cimarron Circuit Opera Company, Shreveport Opera and most recently with the New Orleans Opera in her debut role as The Strawberry Woman and Soprano I Prayer Soloist, in *Porgy and Bess*. Dr. Francis also serves as Executive Artistic Director of “The Patriotic Project Statewide Youth Chorus”, an interactive, music empowerment program providing youth an opportunity to be exposed to several forms of creative arts. Currently, Dr. Francis serves as Assistant Professor of Vocal Music Education at Nicholls State University in Thibodaux, Louisiana. Dr. Francis continues to perform locally, nationally and internationally.”

AE: Here is my abridged biography: “Winner of the distinguished 2009 George London Award, the young Filipino-American tenor Arthur Espiritu is a singer whose career to date has included important assignments in Europe and the United States. In Europe he has performed with the Accademia of Teatro alla Scala Piccolo Teatro di Milano and Opera Fuoco, and has had principal role debuts with Theatre St. Gallen in Switzerland in the 2009-2010 season. In the US, Mr. Espiritu has been seen on the main stages of Pittsburgh Opera, Connecticut Opera, Opera Memphis, and has sung in concert with Pittsburgh Symphony Orchestra, the Louisiana Philharmonic Orchestra and Marlboro Music Festival. Mr. Espiritu has trained in young artist programs with leading opera companies including Santa Fe Opera, Opera Theatre of St. Louis, and Pittsburgh Opera. Mr. Espiritu has maintained a full performance schedule since having received an Artist Diploma from Oberlin College Conservatory of Music in 2004. Mr. Espiritu earned both of his degrees, (Bachelor of Arts and Master of Music), from the University of New Orleans.”

KW: How was Dr. Cortina instrumental in your development as a singer and/or teacher?

AE: Cortina recruited me to UNO. She was and still is a major part of my development. She taught me so many things about the business in addition to singing.

DB: Dr. Cortina was unbelievably instrumental in my development as a singer and teacher. Her expert as well as intuitive knowledge and style of teaching enabled me to grow as singer exponentially. I started studying with Dr. Cortina at the age of sixteen and by the time I was twenty-one I had made my debut at The Met; enough said. As a student, you naturally absorb pedagogical knowledge and methods, to a degree, from your teacher. My success as a vocal pedagogue today was predicated by my study with Dr. Cortina.

ER: Before I started to study with Dr. Cortina, I studied for years in Costa Rica. I met Dr. Cortina in Costa Rica some years before I started studying with her. She suggested that I move to New Orleans and study with her at UNO while earning my Master of

Music degree. I accepted and was granted a full scholarship. Studying with Dr. Cortina was the most important factor in my development as a singer.

VF: Dr. Cortina was and continues to be instrumental in my development as a singer and teacher. Dr. Cortina is presently helping me to keep the “velvet” on the voice...or as Doc would say, she is helping me to maintain beauty by keeping the voice “high, bright and light!” I met Dr. Cortina in the fall of 1985 at the University of New Orleans. I can remember our first meeting as if it were yesterday. Dr. Cortina immediately noticed my fears and insecurities and ushered me into the room with assurance and support. I went in and offered to sing “Vissi D’arte.” She allowed me to collect myself and I sang. After I sang, her response was that I had a beautiful voice but that it was “in a little box that wanted to get out.” I tell everybody this story because it was Dr. Cortina who in a matter of two years took that little voice of mine and brought it into a voice that can soar over orchestras today. Dr. Cortina is an expert in the field of Voice, Vocal Pedagogy and Opera. She believes in assigning repertoire/roles to her students based on what is appropriate and what level the student is at the time - not on what the student feels he or she should be singing or would like to sing. I was not the fastest in musicianship or languages, and Dr. Cortina would meet with me on her own time to make sure that I was on point. She entered me in various vocal competitions including the Junior Philharmonic Competition, NATS and the Gulf Coast District National Council Auditions of the Metropolitan Opera. I won, placed, and got very encouraging remarks in these competitions. Doc also introduced me to the classical community by making sure that I was a part of every opera production for the entire time I was a student at UNO. I received my first operatic experience in the UNO production of *The Merry Widow*. I sang in the chorus, but Dr. Cortina made sure that I was visible throughout the opera as she gave me all kinds of little tasks to get me used to the stage. Doc was always very firm and I continue to have the highest of respect for her. I taught for two years at two area high schools in New Orleans after I graduated from UNO. During opera productions at UNO, Doc would completely transform the Recital Hall stage where she treated the audience to a complete and high-class operatic experience with full orchestra, conductor, set, props, costumes, and exceptionally well-prepared students. Whether the participants were from her studio or not, everyone was completely in awe as to her abilities as an artist, teacher, director and creative force. Dr. Cortina connected me with Dr. Thomas DeVore Carey at the University of Oklahoma at Norman. I joined the opera company, Cimarron Circuit Opera and got additional training on stage for the duration of my stay at OU. I received a full scholarship and performed frequently throughout Oklahoma, Texas and Austria. I later returned to New Orleans to complete my dissertation. It was also the last chance for me to audition for the Gulf Coast Regional National Council Auditions. I sang and won the honor of representing the Gulf Coast Region at the Metropolitan Opera House in New York, NY. Not only has she played a major role in my development as a singer, but she also helped me to receive a teaching position at the University of New Orleans, Dillard University, Xavier University (following Katrina) and presently at Nicholls State University.

KW: What do you remember about Dr. Cortina's methods that have helped you become the successful singer and teacher you are today?

AE: She teaches the importance of consistency in your vocal technique. She also explains the challenges and the pitfalls of this art. She stresses that I should be careful when I select the type of repertoire I will sing. Most of all, she is a teacher who really cares and loves her students. She instills in me a solid foundation for my vocal technique and has created me into an artist.

DB: I remember her great attention to technique but mostly the integration of technique and artistry. She emphasized that technique, as a purely mechanical exercise, was enough to make you a singer, but not an artist. Using that technique to shape sound and express text to impact the listener was the most influential dynamic that she imparted to me; and I teach that way today.

ER: There are specific aspects of my vocal technique and interpretation of the repertoire that Dr. Cortina's methods help me develop. She helped me understand how to correctly pronounce the cardinal vowels; especially the "i" vowel. I had a lot of difficulty pronouncing this vowel correctly. I tried for years to find a pronunciation of the "i." This vowel created a great deal of tension in my jaw, but I did not know that was the problem. Dr. Cortina fixed this problem in the first lesson with a very simple instruction: "Open your mouth and relax your jaw." It was very simple - but effective. She pointed out exactly what was wrong and I was able to fix it. With Dr. Cortina I also found a higher position, or placement, for my voice. Before Dr. Cortina, I used chest resonance the most of the time. I abused my voice by only singing with the dark color of my voice. Dr. Cortina taught me to development resonance using exercises with nonsense syllables such as "ng" or "ga," "ge," "gui," "go," and "gu." I apply everything that Doc taught me in my studio and in my singing. The training I received has helped me to become a very positive, confident, and sensitive professional performer and teacher. Here are some lessons I remember Dr. Cortina teaching me: the mastery and understanding of vocal pedagogy, body awareness, a knowledge of anatomy and all the functions of the body that help a singer to produce a free tone, the idea of the raised soft palate, the lowered larynx, the relaxed tongue, the relaxed jaw, posture – such as keeping the chin parallel to the floor, the jaw must remain in a neutral position as the lips and tongue muscles move to create the text, and exercises such as the lip trill, the block scales, and exercises to work the vowels. She would also say things like, "master your Bel Canto technique," "master breathing; it is the foundation of singing," "identify the strengths and weaknesses of your students early on," "keep excellent records of your student's progress," "select repertoire that is appropriate for students at entry levels," "don't look for a handout," "pull your own weight in this profession," "be flexible but firm," "be sensitive to the needs of your students," "have class and look good," "always present yourself with excellence," "identify your weaknesses and eliminate them," "identify your strengths and continue to build on them," "practice respect, responsibility, and restraint," "practice humility," "don't just learn the aria... learn the role," "mastery of musicianship skills are paramount," "master and sing your vocalises that help to build good vocal muscle memory," and of course her famous belief "there is only ONE technique and you should apply that technique to any style you decide to sing."

KW: What was effective about Dr. Cortina's methods?

AE: Her methods promoted my easy adaptation to any style. My technique grew with steady consistency. She managed to place in me a vocal muscle memory that will not fail me in times of need, because she teaches healthy singing technique. The idea that "less is more," helped me create non-constricting reflexes while singing. In other words, I do not push my voice or damage it. It is one of the healthiest techniques I have studied.

DB: I don't regard Dr. Cortina's teaching as "methods" per se; her teaching as a whole I found to be holistically effective. One of the main pillars of an effective teacher is the ability to "couture" their teaching according to each student's needs, and that is why I feel Dr. Cortina has been an effective teacher, especially in my case.

VF: What was effective about Dr. Cortina's methods? Everything! I am a product of those methods! I strive to maintain a healthy voice through daily practice. The application of my vocal technique through vocalises and learning new vocal repertoire has helped me to stay active as a performer and teacher. It is important as a voice teacher to keep and maintain your voice. Dr. Cortina has had a major singing career throughout the United States and South America. She shared her craft by presenting wonderful concerts which demonstrated her ability to sing with beauty, ease, clarity and conviction. It is important for the student to see that their professor is current and pursuing his or her career as an artist. This helps the student to realize that the teacher takes his or her voice seriously and that they should do the same. She has made many personal sacrifices to help her students prosper. To date, she has made herself available by helping me to prepare for recitals, operatic appearances, and auditions. Dr. Cortina's methods and procedures have proven effective as displayed by the achievements of her students locally, nationally and internationally. Her teaching has created students with great singing voices who are technically sound. Teaching is a tool to help advance the skills of others. I feel that my preparation and ability to teach using the pedagogical methods of Dr. Cortina have helped me to win the confidence of the students in my studio.

KW: Do you use any of Dr. Cortina's methods with your students? If so, please explain in detail which aspects of her methods you currently use. Do you disagree with any of her techniques?

AE: I always use her technique when dealing with placement, support, and in general - healthy singing. The placement of the voice that she helped me understand makes me feel that there are no longer any extremes in my range; they are all just parts of my range. She explains that all notes should feel like they are in a "sweet spot" as she says to me. As long as you have your voice operating in an optimal level in that same sweet spot, you will be able to sing anything. When I think of how Dr. Cortina explained support I feel that it is when you are able to distribute your phrasing in as musical a manner as possible. She instilled in me good vocal muscle memory. I mentioned healthy singing because I have yet to develop polyps or any problems with my vocal cords even though I am currently singing about nine shows a season. With traveling and rehearsals, jet lags, stress, etc., I am still able to keep my technique. Through using her methods, I am still able to sing well and consistently, and I think that proves that her technique works.

DB: Again there is not a “method” I specifically use with my students as much as pedagogical concepts that I learned from Dr. Cortina. For example, one concept I emphasize is the “open throat” or what I like to call as “laryngeal relaxation”. This is achieved by low abdominal or diaphragmatic breathing and allowing the larynx to move to a lower, yet relaxed position. I do not disagree with any concept or method in which Dr. Cortina teaches.

VF: No, I do not disagree with any of her techniques. She is one of the most exceptionally qualified vocal authorities I have met. My development as a singer under Dr. Cortina’s tutelage has helped me tremendously with my teaching career. Many of the challenges I had as a student parallels several the vocal problems my students face today. I feel that I have answered a great deal of this question previously.

ER: From Dr. Cortina’s method, I use every technical concept that I learned from her. I agree with Cortina’s concepts of the vocal technique because they have worked for me. I know she has made a great life-study of vocal pedagogy, and that all her years of experience have allowed her to approach and deepen her knowledge of the teaching of singing.

KW: What do you suggest for beginning teachers of classical voice at the college level?

AE: My only suggestion is to take your time with a student; especially the ones who show great potential. Instill in them the possibility to be flexible with their voices and promote a healthy singing technique.

ER: Teachers must be patient. Do not forget that every student has a special and unique voice; all voices are different and require personalized instruction. Teachers must be ordered and disciplined. We teach by example through our actions. Teachers should be keen observers and learn from their experiences. I think we should all continue studying vocal pedagogy. In singing as well in life, you should never stop learning. And most importantly, I believe that the pursuit of excellence and perfection should not kill the pleasure of enjoying the wonderful madness of singing.

VF: Teachers should stay in contact with their voice teachers and we should always let our teachers know how much we appreciate them. Never be too big to ask questions. Be able to accept constructive criticism from your administrator, colleagues, and students and share your views and responses constructively and with a positive attitude. Know all of the functions of your vocal anatomy and physiology. Learn about vocal health, fitness, medication, and cures for vocal problems. Develop a wonderful relationship with your ENT. Be familiar with appropriate repertoire for your students in every language and according to maturity and development. Listen and be familiar with high quality performances of repertoire you assign to your students. Be familiar with and share the performances of exceptional Classical artists of our past and present. The application of the performance practices from your voice lessons can be reinforced for you and your students through listening to the performances of the pioneers of the classical arts. Note

cultural and racial differences and be sensitive to them. Master your languages, lyric diction in all languages to include English, Italian, German, French, Spanish, Russian and Latin. Attend and have membership in vocal music teacher conventions and workshops such as NATS, Vocal Pedagogy Conferences, Center for Black Research, MENC, NANM, and African-American Art Song Alliance.

DB: I suggest the art of being sensitive that not all students learn in the same way and it is necessary to cultivate various ways to communicate vocal concepts so that all of your students are growing in the direction of healthy vocal production and integrated artistry.

APPENDIX B

FORMAL INSTITUTIONAL REVIEW BOARD APPROVAL


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NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **11072101**

PROJECT TITLE: **A Model of an Effective Approach to Studio Voice at the Undergraduate Level: The Vocal Method of Dr. Raquel Cortina**

PROJECT TYPE: **Dissertation**

RESEARCHER/S: **Kathleen Gorman Westfall**

COLLEGE/DIVISION: **College of Arts & Letters**

DEPARTMENT: **Music**

FUNDING AGENCY: **N/A**

IRB COMMITTEE ACTION: **Expedited Review Approval**

PERIOD OF PROJECT APPROVAL: **08/09/2011 to 08/08/2012**

Lawrence A. Hosman

Lawrence A. Hosman, Ph.D.
Institutional Review Board Chair

8-10-2011

Date

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