

**Belting Beauties and Soaring Sopranos:  
Vocal Pedagogy to Address the Wide-Ranging Needs of Musical Theatre Females**

An honors thesis for the Department of Music

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## Introduction

Musical theatre is an art form that has been wildly popular in the United States since its inception at the end of the 19<sup>th</sup> century. During the 2010 season, 12.11 million people traveled to New York City to see Broadway shows earning a gross of \$1.037 billion for the entire year.<sup>1</sup> These totals do not even address audiences seeing national tours, regional productions, community theatre, or theatre in educational settings. In America, there are thousands of actors taking part in musical theatre productions every year. At the professional level, musical theatre actors need to be able to act, sing, and dance at a consistently high level eight times a week. In the past few decades, 56 colleges and universities around the country have started undergraduate and graduate degree programs in musical theatre in order to train actors and actresses to meet the needs of this demanding field.<sup>2</sup> Outside of these programs, there are many private voice teachers who are training singers with Broadway aspirations. However, many voice teachers have little to no training in the techniques required for musical theatre singing. Some teachers have exclusively classical training, which prepares students for legit and operetta roles, but leaves them in the dark as to how to approach a role that requires belting and a more speech level approach to the middle voice. Other teachers reject the premises of classical technique, and these teachers often leave their female students with little to no access of the head voice. Both of these approaches culminate in the musical theatre voice student possessing limited expressive vocal abilities. In this senior honors thesis, I will address some of the gaps that are present in the discourse about musical theatre singing, focusing on the needs of female singers in ingénue roles. The majority of young female performers will play ingénue, or similarly young, characters for

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<sup>1</sup> Gans, "Broadway Grossed Over \$1 Billion in 2010," *Playbill*, January 4, 2011, <http://www.playbill.com/news/article/146340-Broadway-Grossed-Over-1-Billion-in-2010>.

<sup>2</sup> "College Finder: Musical Theatre," *CollegeBoard*, accessed January 6, 2011. <http://www.collegeboard.com>

about the first decade of their careers. By focusing on the vocal demands of this type of role, I address the majority of relevant singing styles that should be addressed in the vocal studies of a young woman pursuing musical theatre.

Until the last twenty years, discussion of vocal pedagogy was largely limited to the study of classical voice. Classical voice pedagogy has been investigated for the past 300 years, and many advances in the understanding of human vocal function have come out of the rigorous exploration that has taken place in this field. However, there has been a prevailing opinion that classical singing is the highest aesthetic goal for a singer. This viewpoint lowers the merit of all other Contemporary Commercial Music (CCM) styles of singing—such as country, R&B, pop, soul, gospel, rock, bluegrass, and musical theatre—and has been used to justify the lack of academic attention that is paid to these other styles of voice.<sup>3</sup> It also does not account for the incredible variability in the kinds of sounds that the human vocal mechanism is able to create. In order to provide evidence for the claims that all other styles of singing are of less value, some classical pedagogues have asserted that singing styles like belting are inherently unhealthy and constitute unnatural use of the vocal mechanism. Teachers of this mindset believe that vocal pathologies are the inevitable outcome for musical theatre singers, even though most otolaryngologists see just as many classical as CCM vocalists.

People who view non-classical singing as unhealthy also are forgetting that the performance requirements of musical theatre are incredibly different from those of opera. In musical theatre, actors perform eight shows a week with only one day off. In addition, professional performers also have to sing rehearsals to prepare replacements and understudies and then actually perform the show for an audience. In contrast, opera—as well as rock or

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<sup>3</sup> Miller, *On the Art of Singing*, 100.

pop— performers almost never perform a production two days in a row, there is at least one day off, and typically more than that, before the singer is asked to perform again. This time to rest is essential for an opera singer because singing an opera is extremely demanding. Oftentimes young classical singers stop their careers short by overbooking their schedules and singing too much, or too heavy of material, too often. Musical theatre singers, however, have no choice as to whether or not they have time between performances. If someone is lucky enough to be cast in a major professional production, she must adhere to the rehearsal and performance schedule that is set or lose her job. Any singer in any genre who is performing eight times a week runs a risk of developing vocal problems if her technique is not completely solid. Even if a superb technique is fostered, simple overuse of the instrument can cause damage. Therefore, vocal study for the musical theatre performer has to prepare a singer to maintain a performance schedule that is busier than any other genre—opera, rock, pop, jazz, country— and teachers must remember that the demands are different from that of these other forms of music.

In this thesis, I am going to demonstrate not only how classical pedagogy is able to inform musical theatre pedagogy, but also that some of the vocal functions that have been found through the academic investigation of musical theatre singing are able to help classical singing as well. It is my hope that instead of imposing the “classical” or “non-classical” label, singers will simply refer to the techniques described as healthy vocal function. Taking away the polarity of the two apparent “camps” will lead to a more thorough and in-depth approach to training the voice, particularly for musical theatre.

Chapter One presents an overview of the discussion surrounding vocal pedagogy as well as a brief history of several key pedagogues whose influence continues to impact the training of singers today. I then demonstrate the evolution of the female musical theatre performer. I begin

by describing the vocal requirements of the earliest forms of musical theatre, which was essentially light-opera and operetta. I proceed chronologically, demonstrating the changing and expanding vocal demands placed on female musical theatre singers. In contemporary musical theatre women sing in operatic, legit, traditional belt, comedic belt, mix-belt, jazz, pop, gospel, and country idioms. Not all of these qualities are explored in classical vocal pedagogy, and many women believe that none of the principles of classical pedagogy will help them achieve these CCM singing styles, an idea that is undeniably false. The chapter concludes with an introduction to three different types of characters that represent the major vocal requirements of contemporary female musical theatre ingénues. Clara from *The Light in the Piazza* represents a legit character, who sings in a style that is very close to the Golden Age ingénues like Julie Andrews. On the other end of the spectrum is Natalie from *Next to Normal* who sings in a contemporary belt and speech-level mix almost the entire time. Glinda from *Wicked* lies in the middle of this continuum as she is required to sing both operatic passages as well as belted ones. I use these characters and different songs that they sing as a framework to introduce various techniques and exercises in the subsequent chapters.

In Chapter Two, I address various aspects of alignment and breathing. The physical demands of female actresses on Broadway require that they can sing while navigating complicated sets, running, jumping, and dancing. Many of the “classical” approaches to alignment are quite successful at helping to develop one’s voice. However, when improperly taught, singers can become rigid and tense in their posture, resulting in less than optimal tone production and tensions that inhibit physical expressivity. Alexander Technique, Body Mapping, and Feldenkrais are techniques that are quite helpful in ameliorating the restricted movement experienced by some singers, in addition to several other exercises that I describe. I proceed to



explain various methods of breathing, the tone qualities that result from each technique, and exercises to help develop different ways to breathe for singing. Every voice teacher has his or her own view on what is “correct” breathing and alignment. It is essential that students are able to find what works in *their own* body to produce optimal sound. This chapter will help the student as well as their teacher to do just that by introducing various methods of exploring one’s body to increase awareness and freedom.

The final chapter deals with issues of registration as they pertain to the female musical theatre voice student. Many singers have expert control over one part of the voice or another. Those from a classical background can often sing legit and operetta roles, but have no idea how to approach a belt or speaking mix. On the other side, those who believe themselves to be “natural belters” quite often have no access to their head voice, and consequently suffer from an extremely limited range. Both of these types of singers are only working with part of an expressive palate. In this chapter, I discuss the anatomy related to different registration events, as well as exercises to develop the various registers, and their applicability to performance. The exercises that I introduce are by no means an exhaustive list, but they have each been helpful in my own teaching.

I hope that by introducing the various ways that a musical theatre singer can healthily use the voice, singers and teachers will begin to develop a better understanding of how to apply what is taught in the voice studio to performance. I also hope to dispel some of the myths from those who believe that classical training is the only way to study voice and from those who believe that there is nothing to be learned from the vast knowledge that has accumulated in the study of classical pedagogy. The goal for a musical theatre singer is to develop healthy vocal function for all parts of the voice that will help a singer become a more expressive musician and actress.

## **Chapter One: History of Vocal Pedagogy and the Female Musical Theatre Performer**

### *Introduction*

For the past three centuries, the majority of discussion of vocal pedagogy has taken place within the realm of classical music. Innovations in voice science allowed vocal pedagogues to explore the concepts of registers, resonance, breath support, air flow, alignment, and various acoustic phenomenon in order to develop a pedagogy that was based in fact instead of exclusively imagery and metaphor. Advances in vocal analysis, such as laryngoscopy, stroboscopy, and spectral analysis, have allowed voice teachers to bring more students to higher levels of artistic achievement and vocal production. This is not to say that there were no good singers before these scientific advancements. There were many superbly talented singers before scientific measurement of the human voice was possible, and there are many contemporary singers who have utilized the methods of teachers who lived before or did not have access to these developments. However, the advent of scientific measurement of the voice has resulted in a larger number of voice teachers being able to foster a healthy, useful, and sustainable technique in their students. A full discussion of why scientific vocal analysis has resulted in a larger pool of talented singers is outside the scope of this paper. But, part of the reason is that when instructions are based in anatomic and acoustic fact, they are replicable. A student's technique develops further and is useful in performance when they are able to do an exercise in a lesson and utilize that same sensation to recreate the sound in the practice room or on the stage.

Until the 1980s, however, the overwhelming majority of rigorous study of the voice has been confined to classical pedagogy. Other types of vocal production such as those found in musical theatre, pop, country, or other non-classical mediums have been largely ignored. The lack of investigation into these other forms of music comes from a bias against non-classical

singing, giving classical singing a higher status than other singing styles such as belting and mix-belting. Richard Miller's answer to the question "Why... does there seem to be so little academic attention directed to lively and popular styles of singing" is that it is foolhardy to try and "claim that all kinds of vocal sound are of equal merit".<sup>4</sup> This mindset impeded the investigation of voice science and healthy vocal production for many years, and Miller's views are still echoed by some voice teachers today.

There are singers and voice teachers who associate classical singing with "healthy" or "correct" and musical theatre singing with "damaging" or "wrong". These preconceived notions about the merit of one type of vocal function or another need to be ameliorated if a useful, elaborate pedagogy for musical theatre singing is to be established. Musical theatre is a varied art form that requires actresses to sing in styles that range from opera to pop-rock. Many of the concepts explored in classical pedagogy inform the way that musical theatre singers will approach a large portion of the repertoire. Other vocal qualities, such as belting or the speaking mix, are left largely unexplored by classical pedagogy, and therefore need further investigation if teachers are to best prepare their students for professional careers. All healthy function of the voice should be studied, with the pedagogies supplementing and expanding upon one another instead of being investigated within a vacuum. Therefore the study of musical theatre voice pedagogy needs to begin with an understanding of the foundation laid by classical pedagogy and move on to explore other uses of the vocal mechanism.

In this chapter, I will highlight major developments in voice pedagogy and their applications to the musical theatre actress. Then, I will demonstrate the evolution of the musical

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<sup>4</sup> Miller, *Training Soprano Voices*, 100.

theatre actress in terms of the vocal qualities required in order to establish the various timbres that need to be explored in the musical theatre voice studio.

### *Brief History of Vocal Pedagogy*

During the 16<sup>th</sup> and 17<sup>th</sup> centuries, the art of opera and art of singing began to really take form and gain popularity. Performance venues ranged from living room salons to the small opera houses of the era.<sup>5</sup> As performers began to gain more notoriety and teachers began to hone a method of singing, these masters of the art form set to writing down their instructions and observations about the human singing voice. Thus, the *Bel-Canto* style of singing and teaching began, with the first manual on singing being published in 1723 by Pier Francesco Tosi.<sup>6</sup> At this time, many treatises on vocal technique and performance concerned the *castrati* of the 16<sup>th</sup> to the early 19<sup>th</sup> centuries. Many of the essential elements of these tomes, however, are still applicable to the female soprano voice.<sup>7</sup> Many of the concepts and terms used today like vocal registers, breathing techniques, alignment and posture in singing, and performance habits have their roots in early vocal texts.

Many students, and even teachers, often ask why the terms head voice and chest voice are so commonly used. The typical, and in many ways correct, response of most teachers is that the terms refer to the sympathetic vibrations that are felt in either the head or the chest.<sup>8</sup> However, the etymology of these words clearly dates back to Tosi's text where he describes the *voce di testa* (head voice) and the *voce di petta* (chest voice).<sup>9</sup> Since then, singers have used these

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<sup>5</sup> Coffin, *Historical Pedagogy Classics*, xv.

<sup>6</sup> Coffin, *Historical Pedagogy Classics*, 1.

<sup>7</sup> Coffin, *Historical Pedagogy Classics*, 1-10.

<sup>8</sup> McKinney, *Diagnosis and Correction*, 94.

<sup>9</sup> Tosi, *Observations on the Florid Song*. Summarized in Coffin, *Historical Pedagogy Classic*, 2.

slightly problematic labels in both colloquial discussion of the voice and in scholarly analyses. These labels, chest voice and head voice, are problematic in any style of singing because they do not adequately describe the full range of physical sensations that a singer feels. Not only this, but each of these terms has a different negative connotation. Many classical singers think of the chest voice as “unhealthy”. Singers in non-classical mediums, like musical theatre or pop, conflate head voice with “weak”. Changing the assumptions associated with these terms as well as using a vocabulary that more accurately describes the sensations of the singing voice is a necessary step in establishing a pedagogy that addresses all healthy forms of singing.<sup>10</sup>

In 1777, half a century after Tosi published his book on singing, Giambattista Mancini published his thoughts on singing, which were the first to extensively explore the idea of registers that was initially set forth by Tosi. *Practical Reflections on Figured Singing* was still widely used even 135 years after its initial publication. Mancini posited that the “chest” and the “head” or “*false*” registers needed to be equalized. He also discussed the positions of the mouth and its relation to vowels, registers, and colors used.<sup>11</sup> This work was the precursor to discussions of formants—something that could not be empirically studied until almost 200 years later. About a century after Mancini’s work was published, Manuel Garcia II, son of the esteemed pedagogue Manuel Garcia I, wrote an updated edition of his book *New Treatise on the Art of Singing* (1870) that expanded on his and his father’s previous work.<sup>12</sup> Their ideas on pedagogy are the foundation of the technique that singers such as Beverly Sills and Joan Sutherland utilized.<sup>13</sup> The 1870 edition made use of Garcia II’s revolutionary invention of the

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<sup>10</sup> For further discussion of registration, see Chapter 3.

<sup>11</sup> Coffin, *Historical Pedagogy Classics*, 6-10.

<sup>12</sup> Garcia, *New Treatise* summarized in Coffin, *Historical Pedagogy*, 25-30

<sup>13</sup> Coffin, *Historical Pedagogy*, 12-13.

laryngoscope (1854).<sup>14</sup> After 1854, people were now able to view the functioning vocal folds of living singers—they no longer had to rely on the use of cadavers to study laryngeal anatomy.

Despite the availability and rapid advancements of such technology, pedagogy manuals all the way through the 1950s still referenced mainly subjective experience and analysis of the singing voice, although some pedagogues began to apply scientific advances from medicine to voice study during the 1920s.<sup>15</sup> Bathilde Marchesi was indeed a master teacher of singing. Her most famous pupil was Nellie Melba, after whom the “Melba Point” marking transition out of full chest voice is named, and her teachings are still widely admired. However, they were still mostly based upon subjective analysis of the feelings that singing elicits.<sup>16</sup> Emma Seiler attempted to break this mold in her 1871 publication *The Voice in Singing* because she was convinced that scientific investigation was the only way to truly understand the singing voice.<sup>17</sup> Despite her forward-looking investigation, vocal pedagogues even as late as the 1950s still did not make use of the acoustic and diagnostic techniques available to them. During the past half century, this has greatly changed. Contemporary texts on vocal pedagogy actively combine the teachings of the past with scientific insight. Spectrograms allow voice scientists and teachers to visualize which harmonics are present in the voice. Stroboscopy allows otolaryngologists to record the real-time function of the vocal mechanism. Voice scientists are able to measure airflow and vocal efficiency empirically. Now pedagogues are even able to quantify those previously non-scientific aspects of the voice, such as “ring”, “depth”, “warmth”, and “*chiaroscuro*”. Singing is an entirely subjective art form, and every person has his or her own aesthetic. However, being able to measure and evaluate seemingly subjective vocal qualities

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<sup>14</sup> *Encyclopedia Britannica Online*, Manuel Garcia.

<sup>15</sup> Miller, *Structure of Singing*, xx.

<sup>16</sup> Marchesi, *Ten singing Lessons* summarized in Coffin, *Historical Pedagogy*, 31-36.

<sup>17</sup> Coffin, *Historical Pedagogy*, 49-50.

gives voice scientists and teachers insights in to a way to develop or foster these techniques. For example, modern belters on Broadway typically want a brighter sound that often has a quality called twang. Advances in voice science have taught us that leaving the larynx at peech level placement and narrowing the pharynx are two ways to achieve this goal. Voice teachers can now use this information to inform their teaching and have it be based in objective science as opposed only have the option to use an illustrative image or metaphor.<sup>18</sup> Using imagery is often very useful in the teaching studio, and its merits should not be undermined. However, when a technique is solely based upon imagery and vocal “tricks”, students are often unable to recreate the same sensations that they find in lessons. Not only this, but singers who are taught by teachers who can only get results through imagery often do not know how to be proactive in the practice room nor fix problems themselves as they arise. Much of vocal development happens in the practice room through personal exploration, and students need to be given the proper tools to experiment. These tools often include imagery, but precise, tangible solutions for vocal development should also be given.

With the availability of so many vocal analysis techniques, some teachers fear that the artistry and ineffable qualities of singing will be lost.<sup>19</sup> Admittedly, books such as *Singing, the Mechanism and the Technic* go into almost exhaustive detail about every aspect of vocalizing, including anatomy, acoustic qualities, and performance practice.<sup>20</sup> Singers themselves do not necessarily need to know the exact function of every muscle involved or how the level of tongue elevation could accentuate the second partial, for example. However, many voice teachers acknowledge that voice science is increasingly important and that the days of vocal masters

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<sup>18</sup> See chapter 3 for further discussion belting.

<sup>19</sup> Miller, *Structure of Singing*, xx-xxii.

<sup>20</sup> Vennard, *Singing the Mechanism and the Technic*.

saying “I will impart my wisdom upon you” are gone.<sup>21</sup> Teachers and singers today need to have an understanding of at least some of the information available. For teachers to teach effectively, they must be able to address the specific problems of the individual student in front of them. If a teacher’s entire system of teaching revolves around a few images, “tricks”, or exercises that worked for them, there will be many students whose problems will not be addressed. Students do not *need* to know the exact anatomical structures involved in producing various sounds nor the exact acoustic properties associated with various physical modifications. However, having some understanding of the body and how it works will help a student to have better, more effective practice sessions and performance habits.

Joan Lader, a renowned teacher for both classical and musical theatre students, says that “[voice science] informs everything I do. How much I communicate all of this information to [students] is another question”.<sup>22</sup> While voice science and gross anatomy will often confuse a singer if they are given too much emphasis, the vast majority of voice teachers agree that they “need to understand it and be able to communicate it in simple terms to [their] students”.<sup>23</sup> These more simple terms often involve “dramatic imagery...[and] sensation”.<sup>24</sup> A possible criticism of this approach is that it perpetuates a system of the teacher having elusive knowledge that is not passed on to the student. There are those teachers who operate this way, and their entire teaching is based upon having a solution to every problem that arises in the voice studio without every giving an explanation that can help the student achieve the desired effect on his or her own. This is not the approach I advocate. The effective teacher is able to evaluate how much scientifically based information is helpful to the student. Some students thrive on seeing models of the vocal

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<sup>21</sup> Miller, *On the Art of Singing*, 6-8.

<sup>22</sup> Joan Lader, interview with Joan Melton, *Singing in Musical Theatre*, 30.

<sup>23</sup> Neil Semer, interview with Joan Melton, *Singing in Musical Theatre*, 67.

<sup>24</sup> Mary Saunders-Barton, interview with Joan Melton, *Singing in Musical Theatre*, 59



tract and skeleton, and they want to know about the acoustic factors that create their unique sound. Others become too preoccupied with the technical and are not able to make artistic growth, while others simply become confused. The amount of voice science compared to imagery and metaphor passed along to the student will vary. In a lesson situation, the teacher has to evaluate the best way to guide the individual student to creating the desired vocal sounds, whether that be through anatomy or imagery.

Although many of the discussions about the use of voice science have been limited to the realm of classical music, scientific analysis of musical theatre (MT) singing has been increasing over the past decade and a half. However, the technique of MT singing has not always been considered a legitimate line of inquiry.<sup>25</sup> Even as recently as the 1980s, pedagogues such as Richard Miller considered any kind of singing other than classical singing to be lower forms of art. Miller even goes so far as liken all non-classical vocal styles to a cheap wine, where only those who have a limited palate can appreciate its taste: “If one wants occasionally to drink an inferior wine, one should do so, but one should not diminish the beauty of a superior wine in the process”.<sup>26</sup> Jeannette Lovetri, a researcher and voice teacher at the forefront of Contemporary Commercial Music (CCM)<sup>27</sup> research laments this view point, saying that for a long time “there was almost no one who could talk about non-classical singing as a serious topic... [or] a pedagogical discipline... and not as something that was ‘lesser than’ classical singing.”<sup>28</sup> She adds that “that’s less true now” but it has been this author’s experience, albeit limited as a function of age, that many voice teachers and classical teachers still regard MT as a lesser art

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<sup>25</sup> LoVetri, *Contemporary Commercial Music*, 261.

<sup>26</sup> Miller, *Art of Singing*. 99-101.

<sup>27</sup> CCM refers to non-classical music styles such as musical theatre, country, gospel, rock, bluegrass, or pop.

<sup>28</sup> Jeannette LoVetri, interview with Joan Melton, *Singing in Musical Theatre*, 40

form. However, this is not at all a one-way relationship. Many MT singers and teachers scoff at the notion that the tenants of classical singing will help the Broadway voice. They fear that the sound will become “too operatic” or “fake sounding”.<sup>29</sup> There are some CCM and MT teachers whose entire teaching philosophies reject most aspects of *Bel-Canto* singing such as palatal lift and balanced-breathing. Singers and teachers on both sides of this discussion can be found guilty of a certain “cultural snobbery” that entitles them to believe their art form to be the superior one. Fortunately, there are highly respected researchers, like Scott McCoy<sup>30</sup> and Robert Edwin<sup>31</sup>, who are proponents for continuing the investigation of MT pedagogy until it is as well established as classical vocal pedagogy. It is an encouraging sign that in almost every contemporary volume of *Journal of Voice* and *Journal of Singing* there is an article on MT or CCM singing. There is now serious discussion into topics like mix-quality, belting, and twang that will prove to help the multitudes of non-classical singers to build a healthy, sustainable technique. I believe that this is achieved through a thorough understanding of how the voice functions. Once a singer understands how the voice functions as a whole, she can utilize these different uses of the voice for whichever style she chooses to sing in.

### *Evolution of the Female Musical Theatre Performer*

Before exploring important aspects of vocal technique for the musical theatre actress, an understanding of the evolution of the art form is necessary. Musical theatre is an art form that began in the practices of light opera; therefore, singers were typically taught in the skills of

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<sup>29</sup> It is my hope that singers will stop worrying about these kinds of labels and just sing in a way that will dramatically serve the text whilst maintaining healthy vocal function.

<sup>30</sup> McCoy, *Inside View*.

<sup>31</sup> Robert Edwin, “About Robert,” *Robert Edwin*, 2011, <http://www.robertedwinstudio.com/biography.php>

classical pedagogy in order to have successful performing careers. As the art form developed the legit and traditional belt styles were added to the musical landscape, the former being a variant on strictly operatic technique and the latter being a sound entirely foreign to the classical idiom. During the 1960s, the rock musical came into being, which introduced another set of vocal possibilities requiring a different technique. In the contemporary musical theatre scene, actresses are called upon to sing operetta, Golden Age legit, traditional belt, contemporary belt, and contemporary legit, among other variants. Before exploring the specific technical demands of these different styles, it is essential to know how the art form came to be so wide ranging in terms of vocal colors. Understanding how the different styles evolved from and expanded upon one another highlights the necessity for classical pedagogy and musical theatre pedagogy to inform and expand upon one another.

American Musical Theatre has been a major industry for the past century. Indeed, when thinking about its origins, many people place them at approximately 1927. This year marks the beginning of what is typically referred to as the Golden Age of Broadway.<sup>32</sup> However, the earliest incarnations of the genre were taking form in the 1860s and continued through to the Golden Age. During this time a new style of singing emerged that had its roots in *Bel-Canto* and light opera, but became more speech-like and placed an equal emphasis on music and acting the lyrics.<sup>33</sup> Leading into the turn of the 20<sup>th</sup> century, shows such as George M. Cohan's *Little Johnny Jones* and *Pirates of Penzance* by W.S. Gilbert and Arthur Sullivan were the mainstay of Broadway, and these light operettas and early musicals defined the district of New York that came to be known as "Broadway".<sup>34</sup> From about 1900 to 1920, singers from the Metropolitan

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<sup>32</sup> Grant, *Rise and Fall*, 5.

<sup>33</sup> Engel, *The American Musical Theatre*; Grant, *Rise and Fall*, 12.

<sup>34</sup> Kenney & Muir, *Musicals*, 7-8.

Opera House found great success in these productions. In fact, singers at this time were expected to be trained as opera singers to have success on the stage.<sup>35</sup> This makes sense, as this was *the* popular medium of the time. Songs such as “Poor Wand’ring One” from *Pirates of Penzance* require a lyric<sup>36</sup> soprano with excellent coloratura capabilities (Audio Appendix 1.1). *Pirates* has been revived frequently since its 1879 New York debut, and is often performed in regional theatre houses.

The legacy of these pre-Golden Age musicals resides not only in their place as a stepping stone to later styles or the incredible music that was written, but also in that the term “legit” (short for legitimate) comes out of the style of singing required for these shows. Legit singing refers to singing in an operatic (or pseudo-operatic) style in a non-classical art form. This tends to involve a lack of “breaks” or discernable register transitions in the voice, extensive use of the head register, and a legato line. A prime example of this is Julie Andrews singing “I Could Have Danced All Night” from *My Fair Lady* (Audio Appendix 1.2) in her clear soprano mix.

One notion that has become very problematic about the concept of legit singing is that beauty of tone becomes primary to the acting or lyrics. Many young MT performers assume that singing a beautiful line in a legit passage is enough. This simply is not true, neither in MT, nor in opera, nor in art song. The best performers are those who are able to combine the beauty of the line with the dramatic intent of the lyrics. Legit singing began during the pre-Golden Age era, but it is still a mainstay on Broadway. An expert contemporary example of this is Christiane Noll singing Cunegonde’s aria “Glitter and Be Gay” from *Candide* (Audio Appendix 1.3). This

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<sup>35</sup> Grant, *Rise and Fall*, 14.

<sup>36</sup> The lyric soprano possesses a voice with coloratura abilities, power, and versatility in the repertoire that is capable of being sung. Her voice is larger than that of the *soubrette* but not as large as a spinto or dramatic, and the weight of her voice lies somewhere between these distinctions as well. Summarized from Miller, R. *Training Soprano Voices*, 9.

song requires the same classical training and vocal acrobatics as “Poor Wand’ring One”, with the addition of a sustained E<sup>b</sup>.<sup>6</sup> This contemporary example of early MT’s legacy demonstrates the continued necessity for classical training. It is problematic, however, that many view Kristen Chenoweth and several of her colleagues as the exception rather than the rule. There are many singers with the potential to perform like this, but they either do not complete the proper vocal training or the proper acting training. In the early 1900s it was acceptable to be a fantastic singer with limited talent for acting, but this has very much changed since then.<sup>37</sup> As the art form progressed and the libretti of musicals became more complex, Broadway singers had to be strong actors in addition to phenomenal singers.

During the first twenty years of the 20<sup>th</sup> century major changes in song writing- such as shorter melodic lines and catchy choruses- paved the way for Oscar Hammerstein II and Jerome Kern’s *Show Boat*, which premiered on December 20, 1927. For many scholars, this production marks the beginning of the Golden Age. The show combines elements of operetta, the talk-singing of Tin Pan Ally, and catchy vaudeville tunes.<sup>38</sup> *Porgy and Bess*, opening in 1935, was another Golden Age musical that combined *Bel Canto* style with American jazz and blues influences.<sup>39</sup> *Porgy and Bess* is still sung by opera singers today as well as by musical theatre singers. The popular song “Summertime”<sup>40</sup> requires expert control of legato line, a beautiful and full head voice, and the capability to maintain a high tessitura—all key aspects of classical

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<sup>37</sup> Grant, *Rise and Fall*, 26-28.

<sup>38</sup> Kenney & Muir, *Musicals*, 324-325.

<sup>39</sup> Swain, *The Broadway Musical*, 51-57.

<sup>40</sup> “Summertime” is often sung by jazz singers or even rock singers, such as Janis Joplin whose version is quite popular. For the purposes of this work, I am only referring to how the song is typically performed within the context of the show, which is almost always in a very legit/operatic manner of singing.

training.<sup>41</sup> The show is often considered an opera, however the American Repertory Theatre in Cambridge, MA has a production of this show in its 2011 season starring award-winning musical theatre performers Audra McDonald, Norm Lewis, and David Alan Grier.<sup>42</sup> These singers, especially the first two, sing in a classically-influenced style. However, their singing still clearly fits into the musical theatre aesthetic, demonstrating that there is no definitive answer in the debate over “what” *Porgy and Bess* is—it is both musical theatre and opera.

The legitimate style of singing continued to have an impact and presence during the Golden Age and beyond; however, on October 14, 1930 a new style of singing came to prominence with the debut of Ethel Agnes Zimmerman—better known as Ethel Merman.<sup>43</sup> In George and Ira Gershwin’s *Girl Crazy*, Merman “liberated” a style of singing that has come to be known as belting.<sup>44</sup> Belting is often characterized by brighter vowels, a more chest voice dominated sound, and a bright or brassy quality<sup>45</sup> (a much more thorough discussion of this style will come in later chapters). Ethel Merman belted a C<sup>5</sup> for sixteen measures during her hit song “I Got Rhythm” (Audio Appendix 1.4). This was a sound reminiscent of the coon- and blues-shouting of early 20<sup>th</sup> century black performers, but never heard by the leading lady in a book musical.<sup>46</sup> Merman’s singing style demonstrates the advent of merging of two aesthetics: European classical and the singing of black jazz, blues, and vaudeville performers. This blending of performance styles created something new, the traditional belt. Her tone was brassy, bright,

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<sup>41</sup> For many teachers, these are major goals in the training of all musical theatre singers.

<sup>42</sup> Hetric, “A.R.T.’s Porgy and Bess to Star Norm Lewis, Audra McDonald and David Alan Grier,” *Playbill*, January 4, 2011, <http://www.playbill.com/news/article/149595-ARTs-Porgy-and-Bess-to-Star-Norm-Lewis-Audra-McDonald-and-David-Alan-Grier>

<sup>43</sup> Kenney & Muir, *Musicals*, 140-141.

<sup>44</sup> Grant, *Rise and Fall*, 38.

<sup>45</sup> McCoy, *Inside View*, Chapter 6.

<sup>46</sup> “Shouters” had been heard in Vaudeville shows and on Broadway in *Ziegfeld Follies*, but never before did a leading lady use this style of singing.

and speech-like but not at all scratchy or hoarse. In order to cultivate this sound in a healthy way, a thorough understanding of how the voice functions is necessary including issues of breath, alignment, and registration—all of which will be explored in subsequent chapters. Ethel Merman continued to sing in the traditional belt style for the next 25 years, and her vocal style is the ancestor to the singing currently used by actresses in musicals such as *Rent* (1995), *In the Heights* (2008), and *Wicked* (2003).

The shows that were performed during the 1940s thru the 1960s make up the majority of what some scholars refer to as “the canon” of musical theatre.<sup>47</sup> Throughout these decades, the singing of Broadway actresses was modified to fit changing aesthetics, showing a need for a pedagogy that expands upon the strictly classical idiom. This time period was filled with popular performers whose vocal styles are still emulated today. The female stars of the era include Julie Andrews, Barbara Cook, Mary Martin, Ethel Merman, Joan Clayton, and many others singing in styles ranging from legit to traditional belt. Throughout the 1940s, *soubrette*<sup>48</sup> soprano lyric lines in musical theatre saw a major change in *tessitura* compared to their classical counterparts. The typical *tessitura* of a classical subrette lies between A<sup>4</sup> and A<sup>5</sup>, extending downwards and up to C<sup>6</sup>. The musical theatre soprano, however, developed a *tessitura* that lies between C<sup>4</sup> and D<sup>5</sup>, extending upwards to around G<sup>5</sup>.<sup>49</sup> The justification for shrinking the average necessary range for a character to approximately a 10<sup>th</sup> is that it is easier to act a lyric when the technical demands and vowel modification requirements are fewer. The character of Laurey from *Oklahoma* (1943),

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<sup>47</sup> Grant, *Rise and Fall*, 5.

<sup>48</sup> The *soubrette* is a soprano with a voice that is relatively small in dimension compared to larger voice types. This singer has easy melismatic abilities over a wide range and has a “vocal effervescence” that lends itself to young, coquettish characters. The *soubrette* is also typically of sleek physical stature, having a youthful appearance. Summarized from Miller, R. *Training Soprano Voices*, 7-8.

<sup>49</sup> Grant, *Rise and Fall*, 27.

Oscar and Hammerstein's partnership debut, is a prime example of this "new" kind of soprano. She is required to sing in a legit style throughout the show, but the majority of her music lies between C<sup>4</sup> and D<sup>5</sup>. In the iconic love duet "People Will Say We're in Love," this is exactly the case with Laurey singing in this general range and there is an occasional F<sup>5</sup> sung, adding dramatic emphasis.<sup>50</sup> From this time on, legit soprano roles tended to be the innocent ingénue characters, like Laurey or Sarah Brown from *Guys and Dolls* (1950)<sup>51</sup>, and belters were either character actresses or stronger female leads, such as Ado Annie in *Oklahoma* or Adelaide in *Guys and Dolls*.

The belting required for Adelaide, however, exemplifies another subdivision of the style—the character belt. Many musicals require women to sing in a belted manner with much nasality and an almost "whiney" quality. In "Adelaide's Lament" the actress climbs the scale to a sustained belted B<sup>4</sup> in this purposefully annoying quality (Audio Appendix 1.5). This role requires a very different vocal quality than the more "brassy" belt of Ethel Merman. This character singing style is found in productions such as *The Pajama Game* (1954), *How to Succeed in Business Without Really Trying* (1961), and *Grease* (1972), all of which have had successful revivals in the past decade. The character singing epitomized by Adelaide is the precursor to the singing styles utilized by actresses in *Urinetown* (2001), *You're a Good Man, Charlie Brown* (1971, 1999-revised), and *The 25<sup>th</sup> Annual Putnam County Spelling Bee* (2005). One reason why both this style and the traditional belt style became so popular was because of their ability to project over an orchestra. Floor microphones were not introduced to theatres until the late 1940s and early 1950s. These microphones, however, still required singers to sing as if

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<sup>50</sup> Swain, *The Broadway Musical*, 80-81.

<sup>51</sup> Kenney & Muir, *Musicals*, 152-153.



un-amplified.<sup>52</sup> As the 1950s rolled along, amplified singing became more the norm, and it was the standard by the 1960s. Even though singers during the transition period into regular microphone use could have abandoned such singing habits because they were no longer required for practicality's sake, the different styles of belt that originated from the 1930s thru the 1950s did not cease exist and are utilized today by actresses playing both supporting and leading roles. These vocal styles persist because they give actresses the ability to convey different dramatic intentions. These belting styles are excellent for strong, commanding, or even comedic characters.

During the 1950s, Rogers and Hammerstein were easily one of, if not the, most influential writing teams on Broadway. New York and London's West end were both home to well over a dozen of the team's shows. They explored and redefined new styles of musical theatre singing, fostering the careers of women like Mary Martin, who was adept at "talk singing" and character belting, as well as Julie Andrews who sang in a legit style at all times.<sup>53</sup> Andrews's voice was very light, free, and incredibly clear as is demonstrated by her performance of "I Could Have Danced All Night" from *My Fair Lady* (1956) (Audio Appendix 1.2). This singing style nonetheless does diverge substantially from the operetta and light opera tradition of the early 20<sup>th</sup> century. For example, the character Marian Meredith Wilson's *The Music Man* (1957) is considered a legit-soprano, even though the majority of her singing lies between D<sup>4</sup> and E<sup>5</sup>, with her highest note being only a single A<sup>b5</sup>. This range requirement is lower and slimmer than most soprano parts in operetta and light-opera. However, there were several shows that also required classical voice training and a more opera-inspired singing style. Leonard Bernstein's *West Side Story* (1957) and *Candide* (1956) were two incredibly successful productions when

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<sup>52</sup> Grant, *Rise and Fall*, 200.

<sup>53</sup> Saunders-Barton, *Bel Canto Can Belto*.

they debuted and continue to have success today with revivals. Although some musical theatre fans complain that truly legit musicals were destroyed by belting, and later by rock music, Barbara Cook's *Cunegonde* (Audio Appendix 1.3) and Carol Lawrence's *Maria* show us that although the focus may have moved away from this type of singing exclusively, it clearly was still influential and marketable.

During the 1960s, women were asked two questions in auditions: Can you belt and can you sing legit? Up until 1967, the basic styles were the traditional belt, character belt, talk-singing, legit, and operetta-style legit singing. The year 1967 saw a radical change in musical theatre that would add a whole new dimension to the genre—the agent of this change was the revolutionary rock-musical *Hair*, debuting at the Public Theatre in that year and transferring to the Biltmore the following season.<sup>54</sup> The Tribe, as the company was called, exposed the world to the first rock-musical. The singing in this show very closely resembled the rock singing styles that dominated the Top 40 at the time. A type of belting style was required to sing this show in an aesthetically pleasing way, but it was quite different from the traditionally-derived belt being utilized in *Cabaret* (1966) and *Sweet Charity* (1966). *Hair* marked the start of a sub-genre where popular rock vocal styling and inflection were paramount. The song “Easy to Be Hard” sung by Lynne Kellogg (Audio Appendix 1.6), and more recently by Caissie Levy (Audio Appendix 1.7), is easily comparable to songs by The Mamas and the Papas, The Byrds, and many other folk and sunshine rock groups. All subsequent decades were influenced by this first rock musical. *Jesus Christ Superstar* (1970), *The Wiz* (1975), and *Godspell* (1972) were all widely popular and required to women to sing using a chest-dominated sound with riffs, growls, scoops, and phrasing that were mainstays of popular music. The rock-musical created new opportunities for

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<sup>54</sup> Kenney & Muir, *Musicals*, 156-157.

musical theatre performers to sing in an edgier style than before. The problem here lies in the fact that one must sustain this high-impact singing for eight shows a week—which is no easy task even for less demanding vocal styles like folk singing. An opera singer would never be asked to do eight performances in one week, and rock performers will not perform this often without breaks. The popularity of rock and pop inspired shows demonstrated the necessity for a varied and thorough musical theatre pedagogy that allows singers to have career longevity.

The late 1970s and 1980s saw the rise of another new form of the musical—the mega-musical, which brought with it another new singing style. The mega-musical is a show that is exceedingly high in production value, has a large cast, contains songs with expansive orchestration, and that often is performed in a comparable grandiose style to opera. One of Patti Lupone’s most critically acclaimed performances was that of the title role in Andrew Lloyd Weber and Tim Rice’s *Evita* (1979).<sup>55</sup> Lupone’s vocal style can be traced back to the traditional belt of Ethel Merman. However, the nuances had evolved. Lupone, and many singers afterward, sang with a belt that was much rounder and contained less nasality than Merman’s, utilizing more head resonance and mixed quality. In “Don’t Cry For Me Argentina” Lupone sings with a very legato line, round vowels, even vibrato, and more mixed quality on many notes than in older traditional belt (Audio Appendix 1.8). *Evita* was the highest grossing musical in its debut year and *Cats* (1982), *Les Miserables* (1986), and *Phantom of the Opera* (1988) each followed suit. *Phantom of the Opera*, still running today, revisited the operatic singing style so famous in previous generations, but expanded the vocal demands. The ingénue Christine is required to sing a speech-quality A<sup>b3</sup> and later sustain an E<sup>6</sup> all within the title song. By the late 1980s, women

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<sup>55</sup> Filichia, *Broadway Musicals*, 120-121.

had even more stylistic requirements to adhere to than two decades before. The pseudo-operatic style in addition to a mix-dominated, legit belt had become prominent within the art form.

As the mega-musicals were gaining popularity and exploring the new belting of Lupone and Barbara Streisand, composer Steven Sondheim was writing shows that harkened back to the light operetta of the past. Three of his shows (and many others), *A Little Night Music* (1973), *Sweeney Todd* (1979), and *Sunday in the Park With George* (1984), all present great vocal demands on actresses. *Sweeney Todd*'s ingénue lead Johanna requires the actress to not only be adept at the patter-song style for which Sondheim is so famous, but also to maintain a gorgeous lyric, legato line through many of his pieces. Patter-songs, such as "Kiss Me" demand extreme vocal freedom, freedom of the jaw and articulatory muscles, and superb breath management skills (Audio Appendix 1.9). Patter-songs existed before Sondheim, however he added greater vocal demands in terms of tessitura, melodic complexity, and characterization to the form. During "Kiss Me," Johanna must clearly articulate all of the words, whilst maintaining relaxed breathing, running around the stage, and keeping the energy up in a very charged dramatic scene. All of these demands are in place, yet the singing must seem effortless and spontaneous. Following the patter passages, Johanna sings an almost Verdian melody that sits between E<sup>b5</sup> and B<sup>b5</sup> with a sustained B<sup>b5</sup> at the end of the passage. This one song demonstrates the rhythmic, melodic, technical, and character challenges faced by actresses in a Sondheim production, many of which are constantly being revived.

Where Steven Sondheim harkened back to musicals and operettas of the past to create something new, and exceedingly challenging, Jonathan Larson's *Rent* (1995) cultivated a new singing style and show format that had never been seen before. *Rent* is a rock-opera that loosely follows the plot of Giacomo Puccini's *La Boheme*, yet the score was nothing like what theatre-

goers had heard before on the musical theatre stage, even in previous rock shows like *Hair* or *Tommy* (1993).<sup>56</sup> It appealed to such a massive audience (it was the highest grossing show during the 1995-1996 season) because the musical lines were melodious enough for traditional theatre-goers, the subject matter was pertinent and edgy enough for younger audiences, and ticket prices were very low compared to other productions.<sup>57</sup> From a purely vocal standpoint, the show was something entirely new as well. All actors wore the same headset microphones as popstars wore in a stadium context. Every character in the production is characterized as a “belter.” In the casting notices for the current revival, they do not even ask to hear a musical theatre piece; they are looking for “true, authentic singers” who sing in a rock/pop style.<sup>58</sup> Before this show, audiences had not heard the nasal, far-forward, exceedingly young sounding rock-patter style that permeates the show and is exemplified by the song “La Vie Boheme” (Audio Appendix 1.10). The characters Maureen and Mimi belt incredibly high notes, E<sup>5</sup> and F<sup>5</sup>, but in a very different style than the gospel-belted found in *Dreamgirls* (1981).<sup>59</sup> Idina Menzel, the original Maureen, sang with a very forward, speech influenced mix/belt style that was quite different from most other beltors theatre audiences had heard before, but now that sound is emulated in shows like *Legally Blonde* (2007), *Hairspray* (2002), and *Next to Normal* (2009). Since the style was introduced, it has been modified and developed in such a way that it is much healthier than at its inception. *Rent* definitely introduced new, difficult vocal possibilities to actresses.

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<sup>56</sup> Filichia, *Broadway Musicals*, 203-204.

<sup>57</sup> Filichia, *Broadway Musicals*, 204-207.

<sup>58</sup> “Rent Open Call,” *SiteforRent*, accessed March 3, 2011, <http://www.siteforrent.com/>

<sup>59</sup> Kenney & Muir, *Musicals*, 112-113.

*The Diverse Contemporary Musical Theatre Atmosphere for Women*

During the past decade some of the most critically acclaimed and/or commercially successful shows (sometimes the balance lies more in on direction than the other) have been *Wicked* (2003), *Aida* (2001), *Legally Blonde* (2008), *Mary Poppins* (2006), *A Little Night Music* (2010), *South Pacific* (2007), *Next to Normal* (2009), and *The Light in the Piazza* (2005).<sup>60</sup> Currently on Broadway, women are singing in the Ethel Merman style traditional belt, a light operetta-influenced legit voice, pop-rock influenced contemporary belt, *Bel-Canto* style legit, contemporary legit, and a myriad of other styles each with slightly different technical demands. This immense variety is exciting but also daunting for singers and teachers alike. How is one supposed to go in for Petra, a belter, in *A Little Night Music* one day, Christine in *Phantom of the Opera* another, and then have to sing Glinda the next without a technical basis that allows for healthy singing in each of these styles? In classical music, the idea of *fach* allows singers to sing comfortably in a few types of roles in which the technique is very fully fledged out.<sup>61</sup> In musical theatre, however, “every soprano belts and every soprano sings high as well,”<sup>62</sup> therefore “a healthy singer should be able to move from one style of music to another”.<sup>63</sup> As one establishes a career there is some degree of specialization, however many roles demand many different sounds. Also, in order to be consistently hired for productions, one has to be able to fit the aesthetic of different directors, music directors, producers, and composers—all of this means that the singer has to be able to produce a myriad of different sounds that appeal to various, sometimes divergent, aural expectations.

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<sup>60</sup> Each of these shows is an award-winning show and/or the highest grossing show of its year. Filichia, *Broadway Musicals*.

<sup>61</sup> Mary Saunders-Barton, interview with Joan Melton, *Singing in Musical Theatre*, 58-61.

<sup>62</sup> Mary Saunders-Barton, interview with Joan Melton, *Singing in Musical Theatre*, 57.

<sup>63</sup> Joan Lader, interview with Joan Melton, 29.

One of the problems faced by many aspiring performers today is finding a teacher who can address these diverse vocal demands. Today there are 56 institutions offering undergraduate university degrees in Musical Theatre in addition to countless summer intensives, workshops, and community theatre programs.<sup>64</sup> However, many of the voice teachers both in the United States and abroad have little to no training or performance experience with non-classical music. In an extensive survey and subsequent follow up study, Jeannette LoVetri asked voice teachers who were members of the National Association of Teachers of Singing (NATS) specifically about their experience with CCM, including musical theatre. Despite the fact that a huge number of teachers had students pursuing musical theatre or other non-classical routes, very few had performed or received extensive training of CCM.<sup>65</sup> Obviously there is a wealth of knowledge and skill to be gained from teachers whose experience lies in classical music. While much of classical vocal pedagogy is applicable to musical theatre, the vast stylistic requirements make vocal training in some areas that are not explored by these teachers a necessity.<sup>66</sup> Many students will leave their undergraduate program after four years and find that they have never been taught how to belt and mix in a healthy, sustainable way. These students begin to experiment on their own by imitating cast recordings. This, however, can be dangerous and lead to serious vocal pathologies because they are not under the guidance of teachers who can teach the necessary skills and vocal health maintenance. The approach to the middle voice is taught very differently by most classical voice teachers. Many women will be tempted to push their chest voice too far and use excessive air pressure, hurting themselves. A healthy, safe, and usable technique in musical theatre cannot be fostered ignoring all tenants of classical pedagogy nor without an

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<sup>64</sup> “College Finder: Musical Theatre,” *CollegeBoard*, accessed January 6, 2011.

<http://www.collegeboard.com>

<sup>65</sup> Weekly & LoVetri, *Follow-Up CCM Survey*, 367-374.

<sup>66</sup> Weekly & LoVetri, *Follow-Up CCM Survey*, 373-374.

understanding of vocal function that addresses vocal colors outside of the classical idiom.<sup>67</sup>

Those students who only study classically will almost invariably hurt themselves when attempting a belt style. On the other hand, students with teachers who ignore the classical approach to head voice, breathing, laryngeal freedom, and legato line will be left with a voice lacking in versatility and longevity. Singers also have to remember that head voice does not imply “healthy”. Many women will push their head voices to sound fuller or be louder than how their instrument is meant to function. Voice teachers need to take as much care in fostering a healthy head voice as well as the other registers used in MT singing.

In the contemporary musical theatre scene, shows are being written that place vocal demands on actresses that were thought impossible a generation ago.<sup>68</sup> Composers still create characters that sing in an almost exclusively legit style. The character of Clara from Adam Guettel’s *The Light in the Piazza* is a prime example of such a role. Kelli O’Hara originated the role and sings almost exclusively in head-voice and head-mix styles. The actress playing Clara needs to have a usable range from low A<sup>3</sup> to high A<sup>5</sup>. While the vast majority of Clara’s material sits in a more classical, head-voice oriented range, there are a few moments where the character is panicked and O’Hara—as well as other actresses who have played the part—used a more “shouty”, chest-voice quality in a similar way to how operatic sopranos will use that range for effect.<sup>69</sup> The approach to singing Clara is quite similar to approaching many of the Golden Age legit leading ladies, utilizing a technique firmly based in classical pedagogy.

On the complete other end of the spectrum is the character of Natalie from Brian Yorkey and Tom Kitt’s *Next to Normal*, originated by Jennifer Damiano. Natalie is a troubled,

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<sup>67</sup> Saunders-Barton, *Bel Canto Can Belto*

<sup>68</sup> Jeanette LoVetri, interview with Joan Melton, *Singing in Musical Theatre*, 39-40.

<sup>69</sup> Amy Justmann, interview with the author, January 2011.



precocious high school student dealing with her mother's mental illness. Although the character is in high school, she is often played by someone in her early twenties. This is advantageous not only from an acting standpoint, as older actresses can bring more experience to the role, but also from a vocal development standpoint. This role is typical of many contemporary musical theatre ingénues in terms of vocal demands. Natalie sings almost exclusively in a mix-belt quality, with the majority of her music sitting between A<sup>b3</sup> and C<sup>#5</sup>, extending up to E<sup>5</sup>. Damiano expertly uses her speech and singing so that her singing truly is an extension of speech, a major goal of musical theatre singing.<sup>70</sup> There are songs that require a powerful belt, but this is used for emphasis and the majority is much more conversational. The vocal characteristics of Natalie demonstrate the departure that American musical theatre has made from operetta.

Today's composers, however, are now writing music for singers who are masters of both the legit and mix-belt styles. In the past, actresses were either belting altos or legit sopranos.<sup>71</sup> To a large extent, current musical theatre actresses need to be both, and Glinda from Steven Schwartz's *Wicked* shows just how versatile a singer needs to be in the current casting climate. In the casting notices for this show, the producers say that Glinda "needs excellent comic chops and star power... [and] a glorious singing voice with high soprano and belt capability".<sup>72</sup> Kristin Chenoweth was the first woman to play this part on Broadway, and she set the standard for how women have since sung the part. Chenoweth studied both musical theatre and opera intensely, receiving her BFA and MFA in each field respectively.<sup>73</sup> Her career has focused mostly on

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<sup>70</sup> Much of her singing was healthy and effective, but there were some technical issues that she encountered later in the run that are addressed in Chapter 2.

<sup>71</sup> Elisabeth Howard, interview with Joan Melton, *Singing in Musical Theatre*, 5-6.

<sup>72</sup> "Wicked Auditions," *Musical Schwartz*, accessed February 2011, <http://www.musicalschwartz.com/wicked-auditions.htm>

<sup>73</sup> "Kristin Chenoweth: Oklahoma City Universtiy," *Lycos*, 2010, <http://www.lycos.com/info/kristin-chenoweth--oklahoma-city-university.html>.

musical theatre, and her technique addresses the diverse needs of Glinda and other roles. The part calls for a strong belt through C<sup>5</sup>, a contemporary mix through D<sup>5</sup>, and a beautiful operatic head-voice through C<sup>6</sup> (or higher with the choice of optional notes like E<sup>6</sup> and F<sup>6</sup>). Dozens of women since Chenoweth have performed the part successfully, showing that the technique required for such a diverse role is attainable through proper training, and exceptional vocal talent.

The three characters mentioned provide key points along a continuum from legit (Clara) to contemporary mix-belt (Natalie), with Glinda falling right in the middle, combining aspects of both. By choosing these three characters, I will also address many of the vocal demands that are required when singing roles in shows from previous time periods as well. While training to sing the role of Clara, an actress will also be developing the skills to successfully sing many of the legit leading ladies from Golden Age musicals such as Maria in *The Sound of Music*, Laurey in *Oklahoma!*, and Marian in *The Music Man*. Clara also presents similar challenges to many of the roles written in Steven Sondheim's musicals. Clara has to be able to masterfully negotiate difficult patter-singing over a wide range as well as sing very difficult melodic and rhythmic passages (Adam Guettel's music is quite complex). Vocal training to address Natalie's singing demands will help an actress to sing many other contemporary shows like *Spring Awakening* or *Legally Blonde*. The singing required for Natalie is also applicable to older shows such as *Hair*, *Two Gentlemen of Verona*, *Grease*, or, more recently, *Rent*. The speaking mix and belt that are utilized by Natalie can also be modified to fit the needs of many character-voices such as Adelaide in *Guys and Dolls*. Many of the skills required for singing Natalie successfully can be applied to very high mix-belting (for pitches E<sup>5</sup> and higher) because as a singer ascends the scale

in a belt voice, the amount of thyroaretynoid action necessary to create the sound decreases.<sup>74</sup> The training required to sing Glinda addresses other demands not covered by the other two roles. One of the major components of Glinda's music is operatic singing. By developing the head voice to comfortably and beautifully sing between A<sup>5</sup> and C<sup>6</sup> (even up to E<sup>6</sup> or F<sup>6</sup>), an actress will have trained to also sing roles such as Maria in *West Side Story*, Cunegonde in *Candide*, Mabel in *The Pirates of Penzance*, and Precious in *Steel Pier*. Glinda also utilizes a speaking mix similar to Natalie's as well as a soprano mix similar to Clara's; however, Glinda also has passages that require a traditional belt sound. Preparing for this demand will also help women who are preparing to sing roles such as Reno Sweeney in *Anything Goes*, Ado Annie in *Oklahoma!*, and Annie Oakley in *Annie Get Your Gun*. Singers who are able to master the vocal requirements of these three roles will be able to play most characters within the musical theatre canon. As one's career progresses, there is typically some specialization in terms of what kinds of roles are sung. However, while training and developing a technique, all possible kinds of healthy vocal production should be explored because it will keep the voice most healthy and versatile. This versatility will allow a singer to have a wide and varied career—a prime example is Patti LuPone who is famous for belted roles such as Evita and Mama Rose, but also performed exceptionally well in LA Opera's 2007 production of Kurt Weill's opera *Rise and Fall of the City Mahogony*.

In the following chapters, these characters will provide specific examples of the vocal techniques required by actresses today. Hundreds of years of classical vocal pedagogy has provided a solid, vital foundation for musical theatre singing. Building on this foundation and moving in new directions has created the opportunity for these characters to not only exist, but to

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<sup>74</sup> See Chapter 3.

garner TONY Award nominations for the actresses playing them. Musical theatre singing is constantly evolving, and the current wide-ranging demands provide exciting new opportunities for pedagogues.

## Chapter Two: Alignment and Breathing

### *Introduction*

Breathing is an innate process for humans, no one needs to teach a newborn how to draw air in and out of the lungs. In fact, watching a baby or young child breathe provides great insight into how easy and free the process can be, as their abdomens have not built up the years of muscular tension that adults have.<sup>75</sup> Young children also move with almost perfect alignment—they run around with a properly erect spine, loose and free joints, and a perfectly balanced head. As we grow older, habits develop that compromise this excellent alignment.<sup>76</sup> In order to produce the best singing possible, singers need to learn how to modify their alignment and breathing to allow for optimal use of the muscular and skeletal systems. Developing new approaches to body alignment and breathing, however, is no easy feat and often takes years to fully understand.

An adult breathes between 17,000 and 23,000 times a day and, more often than not, it is a completely unconscious act.<sup>77</sup> Posture and the way one holds his or her body are also typically aspects of daily life that receive little attention. In the voice studio, however, breath management and alignment are often associated with anxiety and confusion. Part of this comes from the fact that every teacher has his or her own views on posture and breathing that s/he believes to be best, and the vastness of opinions can leave students mystified, perplexed, and, in the worst of cases, causing harm to their voices.

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<sup>75</sup> McKinney, *Diagnosis and Correction*, 46.

<sup>76</sup> Arnold, J. *Alexander Technique*.

<sup>77</sup> Malde, *The Singers Breath in What Every Singer Needs to Know*, 47.

Why, then, do we spend so much time and energy on breathing technique for singing? Because it is, in short, “the core of our artistry”<sup>78</sup>, says Melissa Malde who has spent a good portion of her career focusing on how singers can more effectively use and know their body to grow as a singer. Breath not only is the energy source for the creation of vocal sound, but it conveys the emotional state of the performer. It is for this reason, as well as using breath management techniques to create the most optimal or desired sound, that singers must learn how to breathe best in *their own bodies*. For musical theatre singers, many problems in breath management and alignment are a result of the combination of heightened emotions, lack of body knowledge, and the staging requirements placed upon them by directors. Misuse of the breathing mechanism often results in too much or too little subglottic pressure and in muscular tensions, which in the best of cases produce a less-than-optimal tone, and in the worst of cases can be a stepping-stone to developing vocal pathologies. Neither of these are acceptable options for a woman in today’s highly competitive musical theatre climate.

Learning how to best utilize one’s breath management system is key to developing a usable, sustainable technique. Along with this, a singer needs to have an excellent sense of kinesthetic awareness, which allows a singer to deal with a various of alignment issues.<sup>79</sup> Issues of alignment are most often taught concurrently with breath management and other facets of technique, but a properly aligned body precedes optimal respiratory function (and consequently tone production). In musical theatre, actresses are called to sing while running across a stage, bent over beds, dancing, standing center stage, and any number of activities that directors and choreographers in this physically demanding art form require. Staging demands in musical theatre place actresses under extreme amounts of pressure to be fully aware of their bodies and

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<sup>78</sup> Malde, Malde, *The Singers Breath*, in *What Every Singer Needs to Know*, 47.

<sup>79</sup> Allen, *Body Mapping*, in *What Every Singer Needs to Know*, 5-7.

how they optimally function. Without this knowledge, a performer's dramatic and singing capabilities will be severely limited.

For musical theatre actresses, many of the issues regarding alignment and breath come from one of two major sources. The first is being taught information that is not based in anatomical truths or that is misunderstood and not implemented correctly, resulting in excessive tension. The other major source of issues stems from the fact that many of the physical demands required in performance are not addressed in the voice studio. Many students study voice without ever being taught how to move while singing. Other students use movement to release a physical tension, but do not know how to find this freedom on their own, nor in a performance. In this chapter, I will introduce the ways in which pedagogues have discussed issues of breathing and alignment and then apply them to musical theatre voice study and performance.

### *Alignment for the Musical Theatre Singer*

There are some teachers who believe that body alignment and posture (more on this word later) are not topics that need thorough discussion and are unrelated to the act of singing.<sup>80</sup> This point of view can be supported by watching famous singers in most any genre who exhibit poor posture. These singers, however, would benefit from improved alignment. Most teachers disagree with the decision to not explore posture and alignment and begin vocal instruction by teaching the student how to hold and use her body.

The highly regarded pedagogue William McKinney provides thorough justification for exploration of optimal posture that is based in scientific fact. First of all, the body itself functions optimally when certain conditions are present. The body is designed in such a way that

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<sup>80</sup> McKinney, *Diagnosis and Correction*, 33

the skeleton gives it support and its basic shape, and that the skeletal muscles produce movement and take a role in positioning the skeleton.<sup>81</sup> A body that does not allow for the skeletal and muscular systems to perform their respective jobs uses excess energy and develops tensions that otherwise would not exist.<sup>82</sup> These tensions will manifest in less than optimal vocal production, something that is especially unacceptable in live musical theatre performance. McKinney proceeds to point out that good posture and positioning of the breathing mechanism allows it “to fulfill its basic function efficiently without any undue expenditure of energy”.<sup>83</sup> The alignment of the neck muscles and laryngeal framework is essential to healthy, free sound production. The problem that singers face is that no other musical instrument has such a complex and malleable set of resonators. To make a comparison, if a flutist were to inhale and create tension in his body, that tension can be ameliorated and there is no change to the shape of the flute. If a singer takes a breath and creates laryngeal tension, the shape of the instrument has been compromised and vocal production gets more labored with each subsequent breath.

Thorough and frequent discussion of alignment and posture aids singers in that they find a default feeling to return to even in stressful situations. Performance anxiety takes a severe toll on some singers and actresses, and it often results in extra muscular tension and increased effort. If a singer is able to always come back to a comfortable, relatively free default feeling, then this anxiety will be reduced. Not only will a performer be more confident when she looks and feels good about her body, but audiences will also react more positively to an actress who is comfortable in her body.<sup>84</sup> The effect of looking comfortable in one’s own body is even important when playing a character with poor posture. In this case, an actress should strive for

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<sup>81</sup> McKinney, *Diagnosis and Correction*, 33

<sup>82</sup> Allen, *Body Mapping*, in *What Every Singer Needs to Know*, 2.

<sup>83</sup> McKinney, *Diagnosis and Correction*, 33-4

<sup>84</sup> McKinney, *Diagnosis and Correction*, 34.



maintaining the muscular freedom found when singing with optimal alignment even though the audience will perceive her to be in bad posture. The actress needs to have an attuned sense of kinesthetic awareness so her alignment choices do not cause excessive tensions.

Problems with alignment can take an exceptional toll on a performer when she is not completely comfortable with her physicality. In a recent production of *Wicked*, I saw a new understudy perform the part of Glinda. She had a beautiful voice; however, during segments with more complex staging, her body became relatively rigid and tense. This lack of comfort and balance in her body manifested itself in a more strident tone, less free vibrato, and intonation problems on sustained notes. This was a great contrast not only to her cast-mate playing Elphaba, but also to her own singing in numbers where she was clearly more comfortable physically. The marked contrast in her vocal quality illustrates the need to develop a dynamic posture that gives a singer comfort. Musical theatre actresses have huge physical demands placed on them by directors and choreographers, and although it is not always possible to arrive at an “ideal” posture, knowing the sensations associated with proper alignment and always striving for it will invariably aid in singing.<sup>85</sup>

#### *Overview and Analysis of Historic Alignment Theories*

Voice teachers have discussed the posture required for singing since they began writing about it, and we can assume before then. Many of their ideas about alignment and posture have been expanded upon and are still practiced today. Manuel Garcia II urged singers to sing with an “erect head” and low shoulders, yet an expanded chest.<sup>86</sup> Francesco Tosi asked that students

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<sup>85</sup> Scott McCoy, interview the author, January 2011.

<sup>86</sup> Coffin, *Historical Pedagogy*, 26.

stand with “reasonable appearance”.<sup>87</sup> Giovanni Battista Lamperti wanted singers to sing in an “erect” posture, but with loose shoulder joints.<sup>88</sup> Herbert Witherspoon’s rhetoric was slightly different from the vague descriptions of other pedagogues. He added discussion of muscular activity to the discourse surrounding posture and breath, reminding readers that, “we do not perform any physical act through [only] relaxation, but with correct tension and action”.<sup>89</sup> In order to achieve proper chest posture, he utilized several exercises designed to help “lift and expand” the chest. Giovanni Sbriglia was a well known singer in his own right and an influential teacher who— although he claimed that there was no singular method to produce “beautiful” singing—advocated a very interesting view of posture. He claimed that the foundation of successful singing is “perfect breath control,” which singers arrived at through “a perfect posture. Foremost is a high chest (which nature gives every great singer), held high without tension by developed abdominal and lower back muscles and a straight spine”.<sup>90</sup> The problem with many of aforementioned early methods of teaching optimal singing posture and alignment is that they are loosely based in anatomical truth and they raise just as many questions about how to use the body while singing as they answer. Many young musical theatre, and classical, singers are told information like this, and it either confuses them, as terms like “reasonable appearance” and “erect posture” are exceedingly vague, or they end up creating tensions in an attempt to achieve a physical alignment that is not beneficial or anatomically sound.

One such counter-productive teaching tool is telling students to maintain a “straight spine” while singing. This myth, which began many years ago and continues today, is quite aversive. Today, some teachers will ask students to sing with their backs perfectly flat against a

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<sup>87</sup> Coffin, *Historical Pedagogy*, 2.

<sup>88</sup> Coffin, *Historical Pedagogy*, 64.

<sup>89</sup> Coffin, *Historical Pedagogy*, 86.

<sup>90</sup> Coffin, *Historical Pedagogy*, 99.

wall and try to memorize and replicate that posture. However, this creates two major problems. First of all, the body looks exceedingly awkward when holding a “straight” spine that violates its natural curvature. The problem is best exemplified when a singer is wearing one of the many form-fitting costumes worn by most Broadway actresses. Their unusual posture in such an outfit causes audiences to become uncomfortable with the unnatural appearance of an actress utilizing this posture. Furthermore, and more detrimental to vocal production, using this “straight spine” posture creates many tensions in the back, neck, and abdominal muscles that result in a more strained, less vibrant vocal production.<sup>91</sup> In musical theatre productions where choreography is used, this is especially problematic as a singer may try to replicate a feeling taught in the voice studio while simultaneously dancing and singing. These singers are forgetting that dancers are not supposed to maintain this “straight spine” and the opposing posture ideals result in over-activation and strain of multiple muscle groups. This is only one example of a posture myth that has survived and continues to be taught by teachers to the detriment of their students’ singing.

Much of the discussion about posture and alignment, indeed vocal pedagogy in general, over the past sixty years has taken many of the vague instructions laid down in the past centuries and modified them to be more based in anatomical truth. Obviously the great pedagogues of the 18<sup>th</sup>, 19<sup>th</sup>, and early 20<sup>th</sup> centuries were teaching posture that produced great singing. But, the increase in scientific knowledge has benefited teachers and students alike, as a teacher can now rely on physiological facts rather than a student’s interpretation of a vague metaphor or idea in order to find balanced posture. The development of a more specific vocabulary to address such issues not only helps teachers, but it also helps a student to fix alignment issues herself in the practice room or performance.

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<sup>91</sup> Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 45.

## *Modern Alignment Theories*

William Vennard's exceedingly thorough text *Singing, the Mechanism and the Technic* has relatively little to say about posture compared to other aspects of vocal pedagogy. However, he does point out, however, that posture is an essential starting point for a beginning student, emphasizing that although each singer will have his or her own specific stance, there are some basics that all students must learn. Vennard wants singers to stand with "the head, chest, and pelvis... supported by the spine in such a way that they align themselves one under the other—head erect, chest high, pelvis tipped so that the 'tail is tucked in'".<sup>92</sup> He adds that the head should be in a position such that the jaw is allowed to be free, not pulled back.<sup>93</sup> This posture ideal is taught by many teachers. However, one of the major problems with this posture, is that tucking the tail has adverse effects on multiple processes. It compromises the rebound of the abdominal muscles and the pelvic floor, prevents spinal lengthening, and tightens the hip joint, buttock muscles, and leg muscles.<sup>94</sup> These physical consequences of "tucking the pelvis under" inhibit efficient breath management and vocal production. The tension in the legs and buttocks are especially problematic for musical theatre singers who are dancing or moving about the stage, like in the song "Popular" where she has to move and dance while singing. An actress will not only inhibit her vocal production by trying to maintain a "tucked" pelvis, but she will also put strain on her leg muscles and possibly become injured. I do agree with many aspects of Vennard's posture ideal, but musical theatre actresses will endure more labored movement and sound production if their teacher has them maintain this counterproductive stance.<sup>95</sup>

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<sup>92</sup> Vennard, *Singing the Mechanism and the Technic*, 19.

<sup>93</sup> Vennard, *Singing the Mechanism and the Technic*, 19.

<sup>94</sup> Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 45.

<sup>95</sup> It should be noted that a "tucked" pelvis may be advantageous for some singers, but this posture should be achieved by the singer herself exploring and finding the most efficient and

The aspect of Vennard's view on posture that is most essential for musical theatre actresses is that there "should be no straining like a soldier in a parade".<sup>96</sup> This refers to having muscular tension in order to keep "holding" on to a posture. One aspect of Kelli O'Hara's performance of Clara in *The Light in the Piazza* that was especially captivating was her constantly balanced, yet flexible alignment. In some songs, such as "The Beauty Is" she remained, essentially, planted in one location or another for most of the song. This contrasted drastically with "Say it Somehow," where she moved around on a bed, often singing while bent over in an incredibly sensual song. The sense of physical freedom was the same in both songs, however, and it contributed to the clarity and flexibility of her voice. One exercise proposed by Vennard that will help the singer begin to learn how to achieve this freedom is to "[swing] the arms circularly as if they were wings, rising on toes with each swing to add to the psychological effect". This exercise will help an actress to expand her thorax but release the shoulders. Many singers, especially in musical theatre, raise their shoulders to physically embody their emotions and feel expanded, but this exercise helps to achieve the same expansion without the strain. Another exercise that explores this type of physical freedom is the "rag doll" exercise.<sup>97</sup> In this exercise, the singer allows the torso to hang limp and move around as if someone kept pulling on a string attached to the body and then let it loose again, never allowing the body to become rigid, stiff, and locked in any one position. The singer memorizes this sense of buoyancy and tries to apply it to whatever alignment ideal they are aiming for.

Richard Miller, another acclaimed pedagogue of the 20<sup>th</sup> century, maintains that the "noble" posture that was used by many singers of the *Bel Canto* era is the ideal for singing. In

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comfortable alignment for her. It should not be taught as a requisite of good posture and alignment.

<sup>96</sup> Vennard, *Singing the Mechanism and the Technic*, 19.

<sup>97</sup> Vennard, *Singing the Mechanism and the Technic*, 19-20.

order to find this posture, he asks that students recline on a flat surface (without the head tilting backwards) and then rising to a standing position whilst keeping the same head, neck, and shoulder alignment.<sup>98</sup> He maintains that this posture is essential to the *appoggio* technique for breath management (to be discussed in the next section).<sup>99</sup> The “noble” posture consists of a high sternum and expanded rib cage that allows for interplay between the upper-chest, intercostals, and abdominal muscles.<sup>100</sup> The “noble” posture, the posture described by Vennard, and others such as the “Winged Victory” posture tend to be more active or engaged stances, with some group of muscles or another working to maintain it.<sup>101</sup> These engaged postures are not “bad,” as long as they do not cause the singer to make excess tensions and feel like they are “holding” the body. In fact, some timbres are most easily achieved using an engaged posture.

In musical theatre, some belt timbres are much easier to achieve utilizing an engaged posture, like the “Winged Victory” or “noble” posture, as opposed to a more relaxed one where there is relatively little active muscle engagement. In *Wicked*, when Glinda sings the belted portion of “Thank Goodness” (Audio Appendix 2.1), the actress often extends her arms and activates some of her back muscles while sustaining and crescendoing the belted B<sup>4</sup> on “crossed”. An effective exercise to achieve this engaged stance is to have a student stand with her arms extended to the side and bent upwards at the elbow (as if to call out to someone) and extend the arms backwards while leaning back singing a “wo” in a 5-1 pattern (Audio Appendix 2.2).<sup>102</sup> This active bracing, as it is called by those who are Estill<sup>103</sup> trained, is very helpful in achieving a powerful, clean, grounded belt.<sup>104</sup>

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<sup>98</sup> Miller, *Structure of Singing*, 30.

<sup>99</sup> Miller, *Structure of Singing*, 23-25.

<sup>100</sup> Miller, *Training Soprano Voices*, 32

<sup>101</sup> Mary Klimek, interview with author, February 2011.

<sup>102</sup> See Chapter Three for a more thorough discussion of this exercise and its usefulness.

In the voice studio, both as a student and teacher, I have noticed that many students have also been taught that they always need to “relax the body” while singing. It is true that some muscles are obviously not supposed to be activated while singing. It is also true that rigidity is something to be avoided when effective vocalism is one’s goal. For some singers, this is excellent advice so long as they are guided to find a balanced, flexible alignment that works for their bodies (discussed more fully later). However, other singers take this advice too far and relax the entire body to a point where a singer is not able to maintain the breath pressure necessary for certain vocal functions, forgetting the tenant that Herbert Witherspoon laid down saying that all singing is done through appropriate tension and relaxation of different muscles.<sup>105</sup> The distinction between “engaged” and “rigid” needs to be made apparent to a singer. One very effective tool I have used in the voice studio to help students find an engaged posture is using a “tug-of-war” exercise. For women who are singing very high legit or operatic passages or women who are belting, this has proven very successful in fostering a more stable, supported, and consistent tone quality. In order to do this, the teacher and student stand across from one another and hold hands. As the student sings the phrase, the two bend their knees and pull against each other *without* bending over (the back remains upright, but the singers go into a more “squat-like” position). For an actress playing Glinda, this exercise would prove useful both for the engagement required to sing “No One Mourns the Wicked” (Audio Appendix 2.3) and “Thank Goodness” (Audio Appendix 2.4). For the former song, the tug-of-war exercise will help the singer to feel an actively engaged body as opposed to relaxed and flaccid, which may be

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<sup>103</sup> Estill Voice Training is a system for developing control over 13 different muscle groups involved in the production of singing. The selective activation or relaxation of these muscles groups will result in different desired timbres. For a full description of Estill Voice Training, see its homepage: <http://www.estillvoice.com/>

<sup>104</sup> Mary Klimek, interview with author, February 2011.

<sup>105</sup> Coffin, *Historical Pedagogy*, 17.

her first inclination. For the second song, the movement and spontaneity involved with this exercise helps the student find engagement without rigidity.

Many of the previously mentioned concepts of posture are firmly based in the Italiante School that dominated vocal pedagogy for several centuries. Obviously practitioners of the “noble” and “Winged Victory” postures have been exceptional singers, there is no point in trying to deny this fact. However, this method of holding the body produces many tensions and rigidity in some singers. These faults can be easily corrected once brought to a singer’s attention, as William McKinney points out in *The Diagnosis and Correction of Vocal Faults*.<sup>106</sup> He advocates a similar posture to that of Vennard and Miller, but also emphasizes that tensions in this posture need to be corrected. Many singers get pain in the small of their back, beneath the shoulder blades, the neck, or the calf and thigh muscles because of the rigidity they create to “maintain” the “noble” posture.<sup>107</sup> During the course of a one-hour lesson, many students will not notice or think to bring up a small amount of discomfort because they believe that they are maintaining proper singing posture. However, over time this tension will grow. For musical theatre singers discomfort related to singing stance becomes especially problematic because it can interfere with the demands of an eight show-a-week performance schedule.

### *Contemporary Solutions*

One solution for fixing these habitual posture flaws that create muscular discomfort and tension is Alexander Technique. Alexander Technique is designed to free the mind, body, and emotions so that they work together.<sup>108</sup> The basic goal of the technique is to establish a way of

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<sup>106</sup> McKinney, *Diagnosis and Correction*, 41.

<sup>107</sup> McKinney, *Diagnosis and Correction*, 42.

<sup>108</sup> McKinney, *Diagnosis and Correction*, 44.



moving and holding the body— in whatever activity a person may be doing— that minimizes superfluous work of the head and neck muscles, back muscles, and, eventually, of the entire body. The technique is something that helps the client—it is taught by certified instructors—to “strip away harmful habits” and increase self-awareness.<sup>109</sup> Many acting programs have small workshops in the technique or even semester-long classes to help their actors become more aware of their bodies. Some classical voice institutions, such as the Manhattan School of Music, also have Alexander Technique classes during their course of study; however, such instruction is rarely part of an undergraduate education in musical theatre. For musical theatre singers, the level of body awareness and freedom taught by Alexander Technique is essential to maintaining a healthy, functional body. A major alignment issue that goes unaddressed will almost invariably manifest itself in debilitating tension when working on an eight performances per week schedule.

The Feldenkrais Method of Somatic Education is another means by people learn to more efficiently use their body. Feldenkrais is a method that relies on and strengthens the interaction between motion of the body and thought.<sup>110</sup> Lessons with a Feldenkrais instructor take two forms. The first is called Functional Integration where the instructor uses gentle touch to initiate movement and teach the student how use the body with less effort. The second type of lesson, which is especially important for a singer, is an Awareness Through Movement lesson. During this type of session, the student initiates movement that is prompted by an instructor. While performing the movement, the singer increases her awareness and notices every sensation

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<sup>109</sup> Arnold, “Alexander Technique,” *Alexander Technique*, 1997, <http://www.alexandertechnique.com/at/>.

<sup>110</sup> “The Feldenkrais Method,” *The Feldenkrais Guild*, 2011, [http://www.feldenkrais.com/method/the\\_feldenkrais\\_method\\_of\\_somatic\\_education/](http://www.feldenkrais.com/method/the_feldenkrais_method_of_somatic_education/).

occurring in the body.<sup>111</sup> For women in musical theatre, this awareness is especially important as they have demanding staging and choreography requirements placed upon them. When performing a song like “Superboy and the Invisible Girl,” the awareness developed using Feldenkrais will help the singer notice if the movements of her arms, chest, and neck are creating excess tension that is impeding her vocal function—a distinct possibility in a song full of frustration and anger. Feldenkrais is often studied by athletes or people who are rehabilitating injuries, but it is equally effective for the singer who needs to learn how to really know and understand how different movements will affect her body and, subsequently, her vocal production.

Another method of minimizing the tension held in the body and for fostering optimal use of the neuromusculoskeletal system is Body Mapping, which is often taught alongside or in place of Alexander Technique. A full discussion of the benefits of Body Mapping is not within the scope of this paper, but for a full description see the exceptional book *What Every Singer Needs to Know About the Body*. I will, however, discuss some of the most pertinent information. Some of the insight gained through Body Mapping informs classical pedagogy, and other information modifies or refutes the claims made by some teachers. Instead of the word ‘posture’, certified Andover educators<sup>112</sup> tell their students to think of their bodies as being buoyant, springy, and balanced.<sup>113</sup> This means never “holding” on to a posture and always using one’s awareness, or kinesthesia, to make proper adjustments. At the core of this method are the six places of balance in the body:<sup>114</sup>

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<sup>111</sup> Case, “The Feldenkrais Method and Music,” *The Feldenkraiese Guild*, April 27, 2011, [http://www.feldenkrais.com/method/article/the\\_feldenkrais\\_method\\_and\\_music/](http://www.feldenkrais.com/method/article/the_feldenkrais_method_and_music/).

<sup>112</sup> Body Mapping is taught by certified Andover educators.

<sup>113</sup> Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 12.

<sup>114</sup> Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 13.

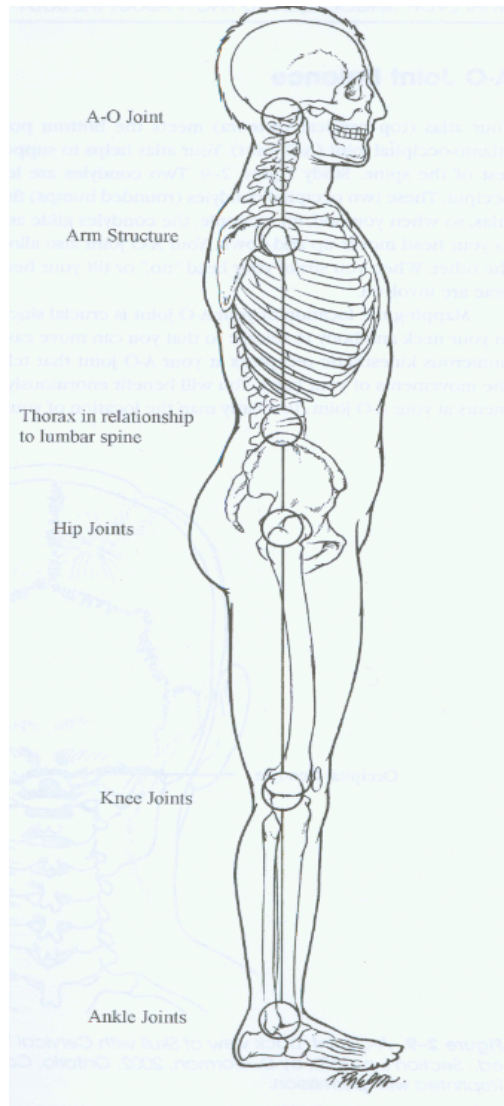


Figure 2.1. The six places of balance described by Andover Educators, from Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 13.

Awareness of these places of balance and how they support the body leads to optimal freedom of the muscular, and subsequently singing, systems. I have found that by simply making a student aware of these places of balance and demonstrating how one can move around while still maintaining alignment, many of the muscular tensions a student holds are ameliorated.

One example of a common problem in beltiers that is addressed through Body Mapping is the balance of the head on the Atlanto-Occipital (A-O) joint. When belting, many women jut their heads outwards and contract multiple neck muscles, which results in overwork and a constricted tone. On the other extreme, many women (such as the understudy I saw in *Wicked*) will tuck their head into their neck in order to feel as if their throat is more “open” for a classical sound. Neither of these are effective, however, and understanding the balance of the head on the A-O joint allows singers to free the neck and laryngeal muscles to do their jobs:<sup>115</sup>

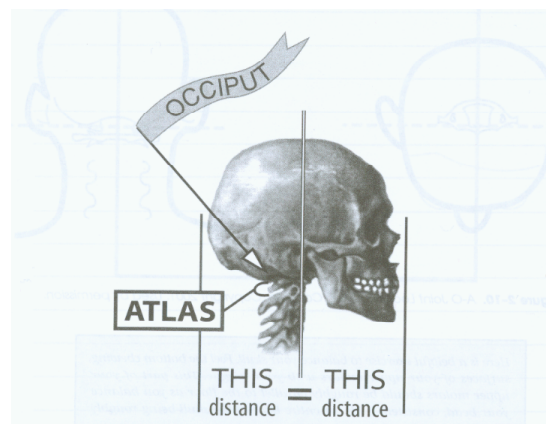


Figure 2.2. Schematic of the alignment of the skull upon the Atlanto-Occipital (A-O) Joint, from Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 45.

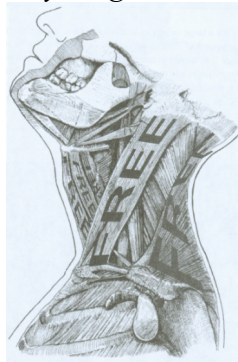


Figure 2.3. Illustration of the freedom in the neck and laryngeal muscles created by proper balance on the A-O Joint, Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 45. One of the sources of this misconception about how to balance the head comes from the

“imagine your head is on a string” image, something Vennard advocates, which causes singers to

<sup>115</sup> Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 26-29.

tense the neck in an attempt to elongate the vocal tract. It also makes singers move their head from the wrong location, as “the movement of the head on your atlas occurs below the head”.<sup>116</sup> One way to solve this problem, as well as the problem of jutting the head outwards while singing, is to gently move the head side-to-side or up-and-down while in a lesson or the practice room. To make sure that the movement is being generated from the proper location, the singer can put a finger on her skull where the A-O joint is found. Obviously exaggerated movement like this cannot be done in performance, however slight movement of the head can. Finding this freedom in the practice room will also teach singers how to identify when their neck and head are unbalanced and tense, and from there they can adjust to find a balanced alignment.

Another key aspect of balance that is typically not addressed by voice teachers is the balance of the arms. Many singers perceive their arm as being an extension of the torso, and subsequently do not move their collar-bones and shoulder blades as part of their gestures. Singers need to remember that the arm structures are mostly independent from those of singing and, therefore, can be used as great expressive tools.<sup>117</sup> The biggest problem singers place upon themselves is pulling the shoulder blades back because they are adopting a “good posture”.<sup>118</sup> Rolling back and holding of the shoulders puts pressure on the nerves that innervate the arm. This also shortens the back, which puts pressure on the ribs—all of which negatively impacts the breath and singing. This misconception not only creates tension, but it also severely limits the physical expressivity of the actress. In *Next to Normal*, Natalie is constantly spinning around an elaborate set of poles. In the song “Popular” Glinda runs, jumps, does a split, and flops over a

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<sup>116</sup> Allen, *The Core of the Body*, in *What Every Singer Needs to Know*, 45.

<sup>117</sup> Zeller, *Physical Expression for Singers*, in *What Every Singer Needs to Know About the Body*, 170-172.

<sup>118</sup> Zeller, *Physical Expression for Singers*, in *What Every Singer Needs to Know About the Body*, 174.

bed—these actresses need to be able to move without feeling constricted within the confines of their “singing posture.” A tight, forced alignment of the body with the shoulders forced back will limit an actress’s performance capabilities, both vocally and physically.

The performance requirements for musical theatre singers—physicality, vocal acrobatics, stamina—require that the body be free and able to move as expressively as possible. The “noble” posture taught by many classical teachers is incredibly helpful—it allows for expansion of the ribs, interplay between the costal and abdominal muscle systems, and (when taught properly) freedom of the laryngeal mechanism. However, many students become rigid and tight trying to achieve this ideal. Therefore, techniques such as Alexander and Body Mapping can help singers find the freedom and awareness to successfully perform eight times a week. Since a singer is not able to see his or her own instrument, alignment techniques have to be taught in a way such that they can be observed, felt, and modified. Teachers and singers must remember that there is no singular perfect ideal alignment or “posture” that will work for every singer. Optimal alignment must be found for each individual, utilizing and experimenting with the vast resources available to singers and teachers of singing. Establishing a balanced and flexible alignment is paramount to efficient breath management and control, and to vocal production in general.

### *The Teaching of Breath*

Breathing is an act that is so fundamental to our every day lives that most non-singers, and unfortunately some singers, are hardly conscious of it at all. However, to most voice teachers, alignment and breathing are the first place they start with students, and the topic is explored throughout one’s singing career. When asked “what was the most important thing you took away or continue to take away from voice lessons”, Broadway actress and classical singer

Amy Justman says “basically breath support and freedom” because a solid understanding of breath management and control provides a singer with something to automatically return to when performing.<sup>119</sup> Elizabeth Howard, a renowned singer and teacher of both classical and musical theatre voice, always begins with alignment and breath because “with good breathing and support habits, a singer can build the rest of the techniques that go with the freedom to express the lyrics and music”.<sup>120</sup> James C McKinney points out the four stages of breathing for a singer: inhalation, suspension (not typically part of regular breathing), exhalation, and a recovery period.<sup>121</sup> Problems can exist at any one of these stages that will cause major difficulties for the voice. A thorough investigation of breathing anatomy and physiology is outside the scope of this work; however, aspects of breath and the corresponding anatomy and possible complications that are pertinent to musical theatre actresses will be discussed. For most voice teachers, the tenants of breath management and control are fundamentally based in those of classical pedagogy, with only some slight variations to accommodate different performance, vocal, or aesthetic requirements.

### *Historic Views on Breath*

The earliest voice teachers place much emphasis on the breath in regards to singing, and mastery of the breath was the basis of beautiful singing. In his seminal book *Practical Reflections on the Figurative Art of Singing* (1777), Giambattista Mancini writes that “if the union of these two parts [the breathing and the pronunciation] reaches the point of perfection, then the voice will be clear and agreeable. But if these organs act discordantly, the voice will be

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<sup>119</sup> Amy Justman, interview with author, January 2011.

<sup>120</sup> Elisabeth Howard, interview with Joan Melton, *Singing in Musical Theatre*, 7-8.

<sup>121</sup> McKinney, *Diagnosis and Correction*, 47-48.

defective and the singing will be spoiled”.<sup>122</sup> Mancini’s view of the intersection between breath, legato, and diction is clearly echoed by many teachers today. Richard Miller points out that even breath and a legato line are not at odds with good diction (a fear of many musical theatre singers) so long as the *appoggio* and relatively free articulators are working together.<sup>123</sup> For a soprano singing “Say it Somehow” or “No One Mourns the Wicked,” Mancini’s ideal intersection of breath and diction must be achieved. The diction must be articulated enough to be understood and to portray the *dramatic intent* of the piece. The use of breath has to facilitate beautiful free high notes (Audio Appendix 2.3 & 2.9). Voice scientists of the past half-century have explored the specific physiology of Mancini’s desired approach, and his theories remain relevant for classical and musical theatre singers singing in both a legit and belt style. Breathing and the musical line of a song need not get in the way of dramatic action, and the applicability of such early ideas about singing shows that much of the investigation done by classical pedagogues informs healthy vocal function as a whole, not only classical singing styles.

About 50 years after Mancini published his book (1824), Manuel Garcia I provided singers with a warning that is still repeated today. He advises “Never to commence singing in a hurry, always to take breath slowly and without noise, which would otherwise be unpleasant to those who listen and injurious to the Singer”.<sup>124</sup> Unfortunately many actresses on Broadway do not follow this advice and fall into trouble vocally. During a later performance of *Next to Normal* (I saw it at the very beginning and at the very end of the Broadway run), Jennifer Damiano audibly gasped and showed signs of fatigue during several songs. During “Superboy

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<sup>122</sup> Mancini, *Practical Reflections*, quoted in Coffin, *Historical Pedagogy*, 7-8.

<sup>123</sup> Miller, *On The Art of Singing*, 19.

<sup>124</sup> Garcia, *Exercises and Method for Singing*, quoted in Coffin, *Historical Pedagogy*, 16.



and the Invisible Girl” she took a very loud, wheeze like breath before the phrase “I am here” and subsequently the D<sup>4</sup> was quite sharp and very shrill:

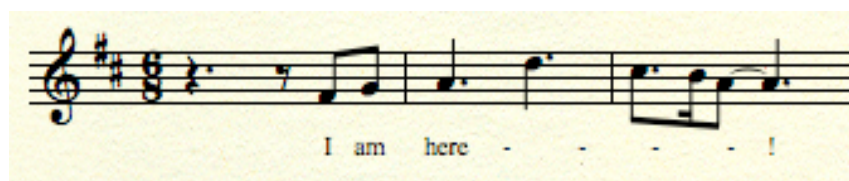


Figure 2.4. Excerpt from “Superboy and the Invisible Girl” from *Next to Normal*.

This was unfortunate when compared to a previous, stunning performance of the same song and many of the other songs from this same performance where her breath was less labored and frantic. Another problem with an audible, gasp-like inhalation is that the glottis is not fully open. This partial glottal closure is what causes the noise that is heard, and it puts undue pressures on the vocal cords because it creates an inefficient phonation process (Audio Appendix 2.5). The slight glottal closure also makes the singer feel as if she needs to “pull” the air into the lungs, because there is more supraglottal pressure. This forced breathing pattern causes tension in the laryngeal, neck, shoulder, and rib muscles—all of which have an adverse effect on vocal production. In order to avoid the undesired change in vocal quality associated with clavicular breathing and audible “gasps”, a singer needs to develop thoracic and balanced breathing techniques, which allow for better control and management of the exhalation process.<sup>125</sup>

Another 80 years after Garcia, Mathilde Marchesi, a skilled teacher of many famous operatic women, advocated a breathing technique in which the “lungs are expanded at the base to give the greatest quantity of air”, calling this diaphragmatic or abdominal breathing, and she advised against corsets because they caused shallow, lateral breathing.<sup>126</sup> Many of her principles are still applied today and have been elaborated upon and more thoroughly defined; however, we

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<sup>125</sup> Techniques to limit clavicular breathing are discussed more fully later in the chapter.

<sup>126</sup> Coffin, *Historical Pedagogy*, 31-34.

shall see how her ideal does not always apply in dance-heavy musical theatre singing where vocal production is often aided by thoracic breathing.

### *The Muscles of Breathing*

William Vennard says that effective breathing involves a combination of both rib breathing, which was deemphasized by some early pedagogues, and diaphragmatic or abdominal breathing as opposed to chest breathing.<sup>127</sup> The combination of these first two is often referred to as balanced breathing or the *appoggio* technique of the Italian school.<sup>128</sup> These four techniques—chest breathing, rib breathing, abdominal breathing, and balanced breathing—and their implications for musical theatre singers will be addressed. Before I do so, however, a basic understanding of how breathing works is essential to developing a useful technique. Each muscle group will be introduced in terms of general functionality first. The second half of this section will be devoted to specific study of how and when to use the muscles described for a given breathing task.

The primary muscles for breathing include the diaphragm, intercostal muscles, abdominal muscles, and the pelvic floor muscles, although for non-singers use of the latter three groups is far less marked than for singers.<sup>129</sup> Many singers have been taught the old axiom “sing from the diaphragm”, especially those studying with a teacher who has little knowledge of vocal anatomy. There are multiple problems with this teaching tool. First and foremost being that many singers have absolutely no idea where the diaphragm is or what it actually does! When asked where the diaphragm is, many singers will point to their epigastrium and say that this “expanding” muscle

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<sup>127</sup> Vennard, *Singing the Mechanism and the Technic*, 20.

<sup>128</sup> McCoy, *Inside View*, Chapter 8.

<sup>129</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 52-55.

is the diaphragm.<sup>130</sup> In actuality, the diaphragm is a dome-like structure separating the lungs and heart of the upper torso from the visceral organs of the lower torso. The diaphragm lies about one third of the way down from the clavicles to the public bone.<sup>131</sup> The diaphragm not only bisects the body, but also is the most important inspiratory muscle. The volume of the lungs increases as the diaphragm descends during inhalation. The increased volume, therefore, creates a vacuum, which is filled with air from the environment. As the diaphragm returns to its resting position, the volume is reduced and air is exhaled<sup>132</sup>. The downward motion of the diaphragm during inhalation moves the visceral organs downwards and outwards and the lower ribs in an up-and-out direction.<sup>133</sup> The problem with having a mis-mapped diaphragm is that people will over-crowd the lungs with air upon inhalation and not engage the appropriate abdominal and intercostals muscles.<sup>134</sup> Many musical theatre singers who have been taught to “sing from the diaphragm” will subsequently go into an audition where psychological pressure is high (given that you may only have 16 bars), ‘crowd the lungs’<sup>135</sup> and not utilize the proper muscles, resulting in a substandard vocal audition. A useful exercise to accurately discern the location and movement of the diaphragm comes from Andover Educators who suggest that a student cup her hands in a dome shape that is tilted slightly up towards herself. She the flattens the hands out as she inhales and then recreates the dome as she exhales.<sup>136</sup> Correctly mapping this part of the body will give a singer the awareness to consciously use the appropriate muscles for a given

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<sup>130</sup> Vennard, *Singing the Mechanism and the Technique*, 28.

<sup>131</sup> McCoy, *Inside View*, Chapter 8.

<sup>132</sup> McCoy, *Inside View*, Chapter 8.

<sup>133</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 54.

<sup>134</sup> Miller, *Art of Singing*, 76-77.

<sup>135</sup> Vennard, *Singing the Mechanism and the Technique*, 28-29.

<sup>136</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 55.

breathing technique, allowing the singer to make the most out of his or her breathing. The choice of muscles used will be discussed for each type of breathing process.

A second group of muscles that are primary to inhalation are the external intercostals muscles that lie between the ribs and run diagonally downwards away from the backbone. These muscles are responsible for the upward and outward pull of the ribcage, increasing the diameter of the thorax and, subsequently, the lungs.<sup>137</sup> Because of the vacuum created, air flows into the lungs until the pressure is equalized between the internal and external environments.<sup>138</sup> The internal intercostals run in the opposite direction of the external intercostals and perform the opposing action. These muscles are the primary exhalatory muscles, as they move the ribs in a down-and-in fashion that decreases thoracic volume, expelling air from the body. These two groups of muscles have secondary functions that overlap, but in essence they create a bellows system that draws air in and pushes it out with the expansion and compression of the thoracic cavity.<sup>139</sup> Many singers perceive the rib “cage” as being immobile, which results in a holding of the thorax that impedes vocal production as well as physical expressivity.

The next set of important muscles for the singers’ breath are the muscles of the abdomen whose primary function is to aid in the controlled exhalation required for singing. There are four abdominal muscles that each have slightly different functions. These include the *rectus abdominus* (the ‘six-pack’ muscles), *obliquus abdominus externus*, *obliquus abdominus internus*, and the *transverses abdominus*.<sup>140</sup>

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<sup>137</sup> Vennard, *Singing the Mechanism and the Technic*, 21.

<sup>138</sup> Miller, *Structure of Singing*, 20-21.

<sup>139</sup> Vennard, *Singing the Mechanism and the Technic*, 21.

<sup>140</sup> Vennard, *Singing the Mechanism and the Technic*, 24-25.

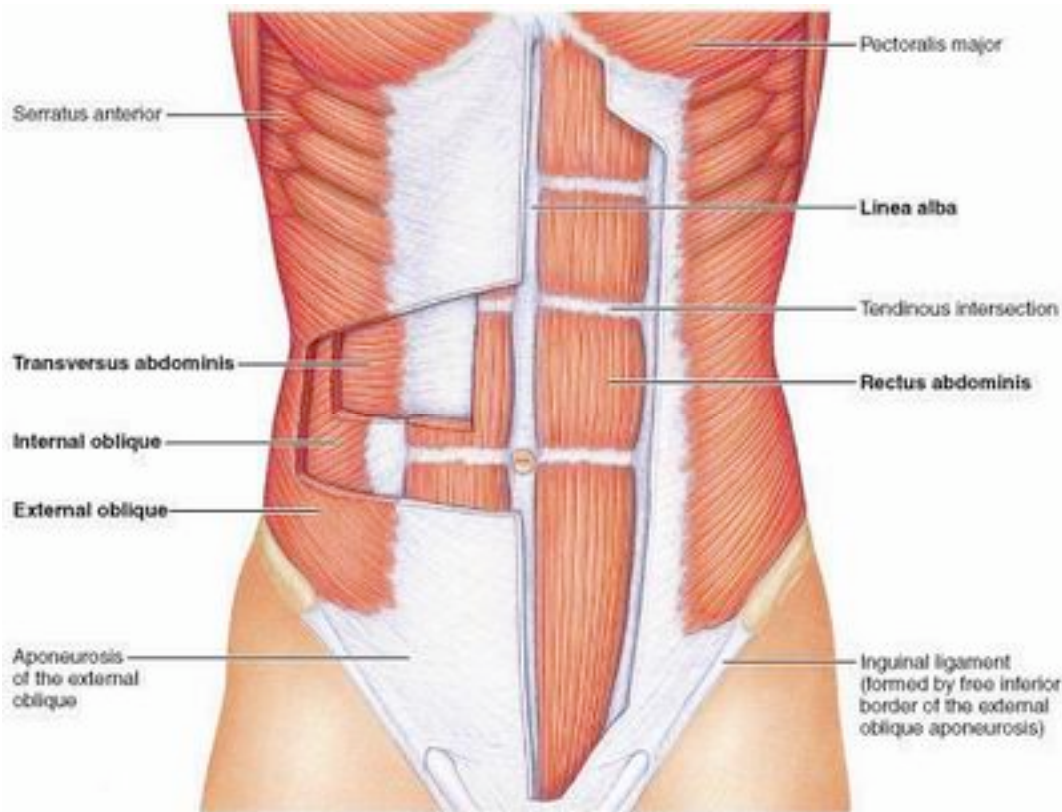


Figure 2.5. Diagram of the abdominal muscles, from [http://www.medicallook.com/human\\_anatomy/organs/Abdominal\\_muscles.html](http://www.medicallook.com/human_anatomy/organs/Abdominal_muscles.html)

Below these muscles lie the muscles of the pelvic floor, whose elastic recoil aids in the exhalation process and whose release allows the diaphragm to reach its fullest possible excursion. It is important that singers are aware of this group of muscles. The pelvic floor muscles define the bottom of the torso and will have a strong limiting factor on control of the abdominals and diaphragm if not properly released or engaged.<sup>141</sup>

There are four main types of breathing that are acknowledged by the majority of voice pedagogues: clavicular, thoracic, abdominal, and balanced. Each of these comes from activation or release of a different combination of the described muscles, and they all have a different effect

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<sup>141</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 62.

on tone production.<sup>142</sup> Some of these effects are desirable for musical theatre singers while others are to be avoided. Understanding the general structures underlying these four types of breathing, however, gives the singer greater control over their body and more freedom to create the desired tone quality for any given role.

### *The Four Kinds of Breathing*

The type of breathing that most people perform is called clavicular breathing.<sup>143</sup> Clavicular breathing, also called shoulder<sup>144</sup> or upper-chest<sup>145</sup> breathing, is characterized by the upward motion of the shoulders, collarbones, and upper-chest cavity whilst the singer inhales, as well as the downward motion of these same structures during exhalation.<sup>146</sup> While this type of breathing may be fine for the general population, most teachers advocate against it. Clavicular breathing is entirely inefficient for singers. It does not allow for full downward expansion of the diaphragm and, thus, limits the volume of the thoracic cavity and the amount of air that the lungs can hold.<sup>147</sup> This incredibly shallow breathing severely inhibits the control one has over exhalation, as neither the intercostals nor the abdominal muscles are sufficiently activated. Upper-chest breathing is also very distracting to an audience, because the tension and poor posture that is created are quite obvious to even an untrained eye. This type of breathing involves muscles that are not directly related to the breathing process and many excess tensions arise because of the extraneous effort. When watching a clavicular breather, it is easy to see the

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<sup>142</sup> For thorough analyses of these muscle groups, their action, and their specific effects on vocal production see *Singing, the Mechanism and the Technic* chapter 2 and *What Every Singer Needs to Know About the Body* chapter 2.

<sup>143</sup> McCoy, *Inside View*, Chapter 8.

<sup>144</sup> Vennard, *Singing the Mechanism and the Technic*, 27.

<sup>145</sup> McKinney, *Diagnosis and Correction*, 56.

<sup>146</sup> McCoy, *Inside View*, Chapter 8.

<sup>147</sup> Vennard, *Singing the Mechanism and the Technic*, 27.

muscles extending from the neck and down to the sternum (the sternocleidomastoids) become tense upon each inhalation, as well as the *trapezius* muscles in the back. The tensions in these muscles, as well as those that superfluously raise the shoulders, will often cause tension in the neck muscles surrounding the larynx.<sup>148</sup> All of the excess movement involved in chest-breathing is also unnecessarily tiring, which can be perilous to the stamina of a singer.<sup>149</sup>

Clavicular breathing is often a problem for those who have had little to no vocal training. In the case of trained singers, it is often the result of a poorly planned phrase where a catch-breath is needed. Such breathing could be required because of extreme physical demands, or because of a singer's nerves causing them to default to everyday, shallow breathing. No matter the reason, musical theatre actresses must avoid it for a number of reasons. First of all, upper-chest breathing— especially when the result of a catch-breath— results in a very audible gasp (Audio Appendix 2.5). The closure of the glottis during this type of inhalation results in extra tension because the singer tries to “force” air into the lungs. This gasp becomes distracting to the audience, as does the constant rising and falling of the chest that makes an actress look uncomfortable and tense. This draws attention away from the dramatic action unfolding on stage and shines it on the singer's labored breathing and vocal production.

The previously mentioned audible gasps, extreme motion of the chest, and vocal problems that occurred during *Next to Normal* were partially a result of excessive clavicular breathing. This wasteful and inefficient breathing can also become a significant problem during the song “Popular” from *Wicked*. During live performances of the song, actresses spend the majority of the song running, jumping, twirling, and even doing splits—all of which reinforce

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<sup>148</sup> Vennard, *Singing the Mechanism and the Technic*, 27. McKinney, *Diagnosis and Correction*, 56-57.

<sup>149</sup> McKinney, *Diagnosis and Correction*, 56-57.

the fun, upbeat, energetic nature of the song. The potential problem is that many actresses get physically tired or run out of breath while singing the song. The resulting clavicular catch-breaths leave the singer entirely unable to use the muscular antagonism of the intercostals and abdominals, which support and steady the tone.<sup>150</sup> The resulting lack of control and tension of the neck and vocal mechanism leaves the singer unable to perform the shifts in tone color that the musical director and, because of the success of the cast recording, audiences expect to hear (Audio Appendix 2.6).

While in the studio and in rehearsals, singers must find a way to minimize this kind of breathing, despite the fact that it often gives the “feeling” of having full lungs. The “full” feeling associated with clavicular breathing is really the result of various muscle tensions that have been created.<sup>151</sup> Many students fix this habit simply by being informed of its existence and looking in a mirror. Ending this disruptive habit creates an independence of the intercostals muscles and abdomen from the upwards movement of the chest that is not present in most clavicular breathers. One common method to correct this breathing includes lying on one’s back with a book on the lower abdomen. The singer then breathes in such a way that the book rises and falls with the breath.<sup>152</sup> Often singers who exhibit a gasp-like inhalation will have to practice breathing in very slowly, taking the time to feel an “open throat” while inhaling. As slow breathing becomes a silent and reflexive process, the singer can practice taking quicker and quicker breaths while maintaining the ease of slower breaths.

Clavicular breathing is one of the easiest problems to fix in most singers, but it is also a very easy habit to fall back into. During “Superboy and the Invisible Girl”, an actress playing

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<sup>150</sup> Vennard, *Singing the Mechanism and the Technic*, 29-30.

<sup>151</sup> Miller, *Structure of Singing*, 28-29.

<sup>152</sup> McKinney, *Diagnosis and Correction*, 57.



Natalie can easily fall into this trap as the character is frustrated and angry—heaving one’s chest is often a physical manifestation of these emotions. However, she must avoid this kind of breathing in order to use the rest of her breath muscles instead of using *only* the larynx to control breath flow.<sup>153</sup> If the director demands that the actress heave her chest up and down while singing the song, she must do so by using the muscles of the arms and shoulders to give the appearance of a frustration. The singer can also breathe so that the upper-chest does expand, but she should make sure to feel expansion around the middle of the torso and in the abdominals in order to maintain the most control over exhalation. In this case, the singer should refer to Alexander Technique or Body Mapping in order to fully understand and develop control over the muscles of the neck, shoulders, and chest and, thus, minimize tension. Despite the possibility of making clavicular breathing less injurious to the singer, it should be avoided in nearly all cases.

The next type of breathing is thoracic breathing, also called rib or costal breathing. Thoracic breathing, unlike clavicular, is not something that most people do naturally and is taught to students by their teachers.<sup>154</sup> Thoracic breathing is characterized by the upwards and outwards expansion of the lower ribcage from ribs six through twelve upon inhalation:

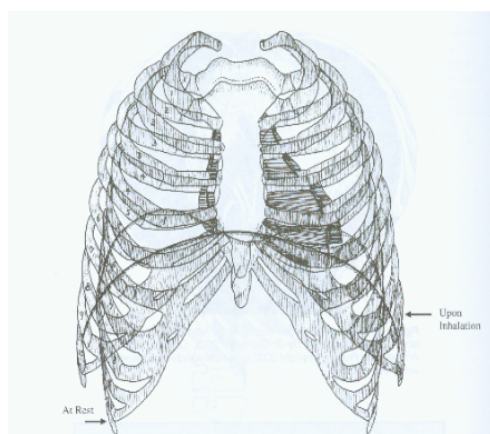


Figure 2.6. Illustration of costal movement upon inhalation and exhalation, from Malde, *The Singers Breath in What Every Singer Needs to Know About the Body*.

<sup>153</sup> McCoy, *Inside View*, Chapter 8.

<sup>154</sup> McKinney, *Diagnosis and Correction*, 58.

As previously described, this expansion is due to the work of the external intercostals and diaphragm.<sup>155</sup> During this process, there is little to no movement of the upper chest and some movement of the epigastrium is often seen. Dr. Scott McCoy points out the multiple advantages that thoracic breathing offers singers over upper-chest breathing. The utilization of the rib muscles, diaphragm, and epigastric area to control the intake and expulsion of air means that a singer has rather refined control over the rate of airflow through the larynx. The lack of excess chest and shoulder movement also minimizes tension that transfers directly to the vocal mechanism as well as psychological discomfort that audiences exhibit when watching a chest-breather.<sup>156</sup>

Developing thoracic breathing can be very difficult for some singers, either because they are very accustomed to the feeling of clavicular breathing or because they are entirely “belly-breathers”. Rib-breathing is also very difficult to learn because many students of voice lack anatomical knowledge and perceive the rib “cage” as being an immovable part of the body, as this name unfortunately implies.<sup>157</sup> In order to develop this breathing technique, it is important to map the ribs as slanting downwards and being lifted (up and out) by the intercostals (see photo above).<sup>158</sup> Scott McCoy tells students to “extend your thumb and forefinger around the sides of your ribcage at about the level of your sternum. Now, take a deep breath deliberately expanding your ribcage outward into your hands”.<sup>159</sup> It is important that students remember that the movement is not only horizontal, but upwards and out. Strictly horizontal motion causes a large amount of excess tension and discomfort at the level of the lower six ribs. Rib breathing

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<sup>155</sup> Vennard, *Singing the Mechanism and the Technic*, 28.

<sup>156</sup> McCoy, *Inside View*, Chapter 8.

<sup>157</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 71.

<sup>158</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 56-57.

<sup>159</sup> McCoy, *Inside View*, Chapter 8.

completely on its own does have some disadvantages. In isolation, thoracic breathing can limit the downward motion of the diaphragm, can cause tension or fatigue if too much energy is wasted “pushing out” the ribs, and often results in pulling in the upper abdomen.

The last point about “pushing out” the ribs is especially a problem in musical theatre as many ingénues are typically very slender in order to appeal to current visual aesthetics. Slender people often have a harder time feeling expansion around the middle of their bodies (ie. the belly) and subsequently tuck in the upper abdomen to reach maximal rib expansion.<sup>160</sup> While this is, indeed, a major postural problem that causes tension and rigidity in the thorax, it must be noted that this kind of breathing is rarely performed in isolation; thoracic breathing typically is accompanied by some degree of abdominal breathing. There are, however, some singers who inhibit their vocal potential by relying solely on rib breathing. For musical theatre singers, the main use of costal-breathing will come while dancing and singing in a speech-level quality at the same time, since it is difficult to perform abdominal breathing while dancing. Also, singing in a belt or speech-level mix is a high-efficiency process, requiring less air for effective production.<sup>161</sup> Thoracic breathing is clearly a useful skill to learn, but it must be one of many that a musical theatre singer can employ.

The third main kind of breathing is abdominal breathing, also called belly-breathing, diaphragmatic breathing, or diaphragmatic-abdominal breathing. As an isolated type of breathing, it relies solely on the downward travel of the diaphragm for inhalation. In order to accommodate this descent, the abdominal muscles must be released to allow for the displacement

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<sup>160</sup> McKinney, *Diagnosis and Correction*, 58.

<sup>161</sup> See *Putting it Together* for further discussion of the uses of costal breathing in musical theatre singing. See Chapter 3 for discussions of speaking-mix and belting.

of the visceral organs.<sup>162</sup> This displacement accounts for why singers often feel as if they are “breathing into the belly”, and also for the visible outward expansion seen in the belly area.<sup>163</sup> Belly breathing, unlike the previously described methods does not have a limiting effect on the downward contraction of the diaphragm. On the contrary, when used as the sole breathing method, abdominal breathing inhibits the diaphragm’s upwards motion to its resting position. The major problem with belly breathing is that singers collapse the rib cage in on itself in order to decrease thoracic volume and allow for controlled exhalation.<sup>164</sup> Feeling expansion in the abdominal region is vital for effective breath control and management; however, when used alone it is not an efficient method for getting air out of the body. One of the few times that belly-breathing in isolation is most desired is for the development of the lowest notes of the range. In the female’s low chest-voice, full abdominal expansion with little to no thoracic-breathing has the effect of aiding in the production of her lowest tones. Many singers will use too much breath pressure against the vocal folds to produce easy, free tones. With abdominal-breathing, it is difficult to achieve high subglottic pressure, so the effect of cutting off low notes is not seen (but high notes will suffer if only belly-breathing is maintained).<sup>165</sup> In the voice studio, I have observed a student utilize belly-breathing on a 5-1 pattern descending the scale. As she got lower, the breathing became more abdominal-dominant, and her low notes became less “pressed” than when she was forcing too much air over the cords. This low part of the range, between E<sup>b3</sup> and G<sup>3</sup> is very important to develop in singers, in all styles, because it has the effect of grounding the voice.<sup>166</sup>

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<sup>162</sup> Vennard, *Singing the Mechanism and the Technic* 29

<sup>163</sup> McCoy, *Inside View*, Chapter 8.

<sup>164</sup> McKinney, *Diagnosis*. 59-62

<sup>165</sup> McKinney, *Diagnosis and Correction*, 60.

<sup>166</sup> Saunders-Barton, M. *Bel Canto Can Belto*.

The problems with strictly abdominal breathing become more apparent in the upper voice and belt voice. Both of these processes require an increase in subglottic pressure that cannot be created by belly breathing alone. If this happens on a song like “Say it Somehow”, then the high A<sup>5</sup> ends up being shrill and the vibrato slows down and widens (Audio Appendix 2.7). If this were to happen on the word “crossed” in “Thank Goodness” excess laryngeal tension would result, and much added strain would be put on the vocal folds in order to continue producing sound (Audio Appendix 2.8). Despite the possible complications with abdominal breathing in isolation, it is highly effective when coupled with thoracic breathing.<sup>167</sup>

A combination of thoracic and abdominal breathing is known as balanced breathing or the *appoggio* system, and it has the most support among voice pedagogues for many singing tasks.<sup>168</sup> *Appoggio* is a breathing system that successfully combines the best attributes of thoracic and abdominal breathing while minimizing the undesirable effects of just using one or the other.<sup>169</sup> Balanced breathing relies on the contraction of the diaphragm, expansion of the ribs (via the external intercostals), release of the abdominal muscles in all directions<sup>170</sup> and release of the pelvic floor<sup>171</sup> for inhalation. The singer then maintains an inspiratory posture throughout the exhalation cycle utilizing cooperative muscle activity of the abdominal muscles and the external intercostals. Before the cooperative muscle activity—muscular antagonism—of the abdominals and rib muscles can occur, a dynamic equilibrium must be achieved. Dynamic equilibrium refers to a flexible and elastic balance between muscles, and it is important for phonation muscles as well as breathing muscles. For breathing, this means that all of the muscles involved in

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<sup>167</sup> Vennard, *Singing the Mechanism and the Technic*, 20.

<sup>168</sup> McCoy, *Inside View*, Chapter 8.

<sup>169</sup> Miller, *Structure of Singing*, 23.

<sup>170</sup> Miller, *Structure of Singing*, 23-24.

<sup>171</sup> Malde, *The Singer's Breath*, in *What Every Singer Needs to Know*, 67.

inhalation and exhalation achieve a balance between one another before the exhalation process begins. Entering a state of dynamic equilibrium before exhalation, meaning there are no uninvolved muscles creating a weak point, allows the singer to have finer control— via muscular antagonism—over the exhalation process.<sup>172</sup> The gentle muscular antagonism between the abdominals and external intercostals facilitates the gradual ascent of the diaphragm that promotes controlled exhalation.<sup>173</sup> As Richard Miller describes *appoggio*, which originated in the techniques of teachers like Lamperti, it is associated with a high sternum, relaxed shoulders, and stabilized epigastric and belly areas.<sup>174</sup> It is nearly impossible to maintain balanced breathing with slumped shoulders and a collapsed ribcage because a singer is not able to maintain the inspiratory posture necessary for balanced breathing with this collapse alignment. Miller adds that there should never be a feeling of “grabbing” or “holding the breath in” as it tends to result in unnecessary muscle tension. Instead a silent inhalation—a hallmark of balanced-breathing—where one feels the gentle balance of the active muscles is necessary.<sup>175</sup> This technique can be developed so that breaths can be taken slowly or very quickly. When learning how to utilize this type of breathing, students often have to be reminded that they need to stay engaged for the entirety of a phrase. An image that has proven helpful is thinking of your support muscles as being like the gas peddle of a car—if you don’t hold down the peddle, the car stops. If one does not stay engaged, the tone suffers. As this technique is learned, it should be done so that the correct engagement can be achieved when there is ample time to breath and when breaths are more hurried:

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<sup>172</sup> Miller, *Structure of Singing*, 1, 34.

<sup>173</sup> McCoy, *Inside View*, Chapter 8.

<sup>174</sup> Miller, *Structure of Singing*, 24.

<sup>175</sup> Miller, *Structure of Singing*, 25-29.



Figure 2.7. Exercises designed to inhibit clavicular breathing and develop breath control, from Miller, *Training Soprano Voices*, 46.

The warm-ups in Figure 2.6 will help develop a technique such that catch-breaths need not result in clavicular breathing that inhibits optimal sound production.<sup>176</sup>

Balanced breathing was clearly the breathing method of choice for Laura Woyasz playing Glinda recently and Kelli O’Hara during their legit, and even many belted, passages. During the title song of *The Light in the Piazza*, O’Hara maintained and moved around with a high sternum, and right before singing “all through the air”, the movement of the abdominals in all directions as well as expansion of her lower ribs was apparent in her tight fitting costume (Audio Appendix 2.9). She maintained this balanced breathing throughout the entire piece. Her ability to do this was aided because the staging required her to maintain this type of posture. Most actresses playing legit characters will not be required to perform exceedingly physical actions while singing. This allows them to maintain balanced-breathing throughout their songs. Woyasz

<sup>176</sup> Miller, *Training Soprano Voices*, 46.

utilized a similar posture to O'Hara, during the opening song, "No One Mourns the Wicked" (Audio Appendix 2.3).<sup>177</sup> If her character were dancing or running around during this song, she would run into problems because full downward ascent of the diaphragm and activation of the abdominals would be compromised. Luckily, legit characters are typically able to maintain the *appoggio* necessary for optimal singing.

### *Putting It Together*

Any of the last three breathing methods described are useful at different times and for different singing tasks, as each allows a singer a varied amount of control. The pressure required for singing varies depending on the task, with louder and higher tones typically needing more pressure (not necessarily more air!). Such tasks include belting, mix-belting, and high operatic or legit singing<sup>178</sup>—all of which are staples of the female musical theatre repertoire. Amy Justman, a lyric soprano, sings both classical and musical theatre repertoire and has a very successful career in both mediums. When asked about the difference in her approach to breath between singing in the two styles, she said that she focuses "more on expansion in the ribs and upper abs. But I still make sure to keep my chest, shoulders, and neck relaxed and down" when singing in the belt or mix-belt style. She still aims for freedom in her upper chest, but the increased thoracic action helps keep the tone consistent in more "mixy" places. She added that, especially when belting, she works to have more activation of the back and abdominal muscles.<sup>179</sup> This activation is required because more resistance is needed in the abdominals to create the required subglottic pressure. However, there is still an element of flexibility in the singer's alignment,

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<sup>177</sup> See [http://www.youtube.com/watch?v=zKxWKZ\\_1dTg](http://www.youtube.com/watch?v=zKxWKZ_1dTg) for Woyasz performing this number.

<sup>178</sup> Björkner, *Musical Theatre and Opera Singing- Why So Different?*, 533-535.

<sup>179</sup> Amy Justman, interview with author, January 2011.



especially in the intercostals. If these become rigid, then regulation of air flow will not be refined or controlled, and too much air may be sent over the cords. The previously described tug-of-war exercise is one way to help find this activation of the back and abdominal muscles. When Jennifer Damiano sings “Just Another Day” (Audio Appendix 2.10), she used a great deal of thoracic expansion and spread her arms slightly, much like the active bracing described by Estill teachers.

The choice of breathing action may also be driven by factors other than the vocal task at hand. The staging, costumes, or visual desires of the director can all have an influence on how a singer chooses to breath. For example, Mary Saunders-Barton says that she has only one real departure from the classical idea of expansion of the lower abdominals, and it pertains to women wearing costumes such as leotards or corsets for shows like *A Chorus Line*. She still has all of her students master balanced breath, but “they are going to simply keep a strong (engaged) core and then allow for the excursion of the ribs, and the diaphragm will do its job”. Typically women wearing such costumes are in roles that require dancing and belting, and since belting is a high efficiency process, the use of the intercostals and diaphragm is enough to create the desired tone.<sup>180</sup> In fact, singing a legit passage after dancing for a long time is incredibly difficult, because complete expansion of the abdominals is not part of most styles of dance. For most legit characters, waltzing is the most difficult type of movement that they will be called to do while singing, and this type of dancing allows for balanced-breathing techniques.

One important note about the aesthetic demands of directors is that oftentimes they want young female leads to be as fit as possible. Certainly all of the actresses in the roles I’ve mentioned are quite thin and in excellent physical shape. However, musical theatre actresses

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<sup>180</sup> Mary Saunders-Barton, interview with author, January 2011.

must be reminded that “tight abs” are disastrous for singing as they prohibit flexibility in breathing, and often times result in too much subglottic pressure and laryngeal tension. “Toned” and flexible abdominal muscles, however, are great for singers as they allow for excellent control over breath management and support.<sup>181</sup> Since the pressures to look a certain way are so high in musical theatre, singers must constantly be stretching as they strengthen the core through abdominal and back work-outs. This allows for the necessary release that permits downward travel of the diaphragm as well as control for staccato passages and the proper antagonism between the abdominals and intercostals.

### *Conclusion*

Many singers complain that they cannot sing as well when they are moving all around a stage. This probably comes from the lack of physicality that many voice students experience during lessons. Many singers coming from a classical tradition are accustomed to standing still and working to maintain their posture through any and all exercises. However, “movement while singing is our friend!” says Mary Klimek.<sup>182</sup> Moving throughout a piece actually gives a singer the chance to explore and adjust their alignment to be as balanced and buoyant as possible. It also allows for some breath problems to be mitigated, as there will be less rigidity in the thorax and abdominals. Some actresses are quite afraid of the quick, sprightly movements required for “Popular” in *Wicked*. The running around and movement of the abs, chest, head, arms, and legs will only be a problem if one tries to remain locked in a “singing posture” while moving. This causes unnecessary energy expenditure and muscular tension. On the complete other end of the spectrum are those who are terrified of total stillness, like that required for “Thank Goodness”.

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<sup>181</sup> Malde, *The Singers Breath*, in *What Every Singer Needs to Know*, 59.

<sup>182</sup> Mary Klimek, interview with author, February 2011.

Mary Saunders-Barton echoes the sentiments of Mary-Jean Allen by reminding students that “complete stillness is a release, not a holding”. One effective image that she uses is “to work against the sense of the weight of air against you. So you are actually opening out... you have to feel like you are ready to take flight”.<sup>183</sup> As always the acting is, in Mary Saunders-Barton’s words, “primo” and one cannot be expected to be expressive if the body and breath are tight and unable to work in a variety of ways to meet the wide-ranging demands of musical theatre. When teaching, I often have to remind singers that they should never practice a song solely for the purpose of “developing technique”. There is always a dramatic element. Much of the rigidity that singers encounter comes from forgetting that, especially in musical theatre songs, the character is always *doing something*. Even if a character is singing a more reflective solo piece, there is still something active being done. Reminding students that the acting will, and should, inform their technique often helps them release the rigidity they find in their practice sessions. This combination of physical flexibility and acting while in lessons or the practice room will translate to better, more captivating, and more consistent performances.

All techniques of breathing and alignment are learned, at first, during an ideal setting—a voice lesson where one is constantly monitored, fixed, and free to experiment under a teacher’s watchful and careful eye. As Dr. Scott McCoy points out, however, all of this training is meant to “arrive at a good technique and optimal sound. Eventually you have to be able to do it no matter what”.<sup>184</sup> For some singers singing the high A in “Say it Somehow” while bending over a bed could be a major challenge. For others it could be standing still while belting “Just Another Day” or “Thank Goodness”. Musical theatre singers must develop the ability to shift use of their breathing mechanism and alignment to fit the vocal and dramatic characteristics called upon by

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<sup>183</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>184</sup> Scott McCoy, interview with author, January 2011.

the text, be it singing the 11 o'clock number, singing in a kick-line, or singing while “on the floor with your head tilted up”.<sup>185</sup> When learning breathing and alignment methods, it is essential that the mindset of using a “classical” style of breathing—for example balanced-breathing—is avoided. Although the four main kinds of breathing and ideals about alignment were originally explored by classical vocal pedagogues, they must be applied to whatever style of singing will benefit from their use. Optimal alignment and breathing techniques are aspects of healthy vocal function, not any one particular style. Singers with the freedom to utilize the healthiest and most useful methods for the type of singing they are doing—opera, legit, belt, mixing— will be able to stand and “feel powerful singing a number” and “to run around, dance like mad, and of course act”.<sup>186</sup>

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<sup>185</sup> Scott McCoy, interview with author, January 2011.

<sup>186</sup> Mary Saunders-Barton, interview with author, January 2011.

## Chapter Three: Resonance, Registration, and Timbre

### *Introduction*

Issues of resonance, registration, and timbre are among the most difficult to describe in voice pedagogy because they are often used interchangeably, and their vocabulary is nowhere near uniform. Resonance is often used to describe desirable qualities of timbre, the subjective feelings people get while singing, and metaphors like ring, forward, deep, and back. In more measurable terms, resonance is the actual acoustic phenomenon of “the intensification and enriching of a musical tone by supplementary vibration.”<sup>187</sup> Timbre is another equally confusing word as it refers to, and can also be called, one’s “tone,” “color,” or vocal quality—in terms of a more scientific approach, it is the combination of partials that make up one’s unique voice as no two graphs (vocal spectra) are the same for two people.<sup>188</sup> Oftentimes, someone with a more “rich timbre” has more high partials in it.<sup>189</sup> Registration is a similarly difficult topic to discuss because there are many different labels that are used to describe a register, or series of tones that utilize the same means of vocal production.<sup>190</sup> Voice teachers and singers refer to head voice, chest voice, modal register, glotted fry, falsetto, whistle, flageolet, fry, belt, mix, mix-belt, call, TA-dominant, CT-dominant, speech-level mix, and the list goes on. There are also those teachers who entirely dismiss the notion of voice registers and prefer to think of the voice as an entirely fluid unit. In the case of a singer, the exact terminology used is not as important, so long as she is able to create the desired tone quality. It is more important that the teacher understands his or her terminology and approach thoroughly. Understanding one’s voice can always help and is better for the singer, but a teacher absolutely must have a concrete understanding of the vocal

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<sup>187</sup> McCoy, *Inside View*, Chapter 3.

<sup>188</sup> Venard, *Singing the Mechanism and the Technic*, 4, 8.

<sup>189</sup> Venard, *Singing the Mechanism and the Technic*, 9.

<sup>190</sup> Malde, *Creating a Singing Sound*, in *What Every Singer Needs to Know*, 99

production being taught. The discussion in this chapter will focus on different registration and timbre events that take place in the female voice within the musical theatre idiom. This type of discussion is especially important because the registers and timbres used by musical theatre vocalists share some major similarities with classical views on register, but there are some important distinctions and diversions from the classical approach. I will begin by highlighting various historical views on registers and how they have influenced our thinking today. I will then explore the use and teaching of head voice, soprano mix, speaking mix, and belt through physiological description, examples of these registers in use, and exercises to help develop these colors of the voice.

### *Historical Views on Registration*

Teachers have been using the concept of registers since the earliest days of vocal training. Pier Francesco Tosi, in his 1723 work, discussed training singers in the *voce di testa* and the *voce di petto*, which are now commonly called the head and chest voice, respectively.<sup>191</sup> Giambattista Mancini, however, was the first to thoroughly explore the concept of registers, proposing a two register system involving the chest and the head or falsetto registers, which needed to be blended. The current views on registers (often having 3 or more) originate in his discussion.<sup>192</sup> In fact, many singers today still only really talk about singing in their chest voice or their head voice. Singers often associate the chest voice with low tones, mirroring Manuel Garcia II's view that the chest voice should never be taken above E<sup>4</sup> or F<sup>4</sup>,<sup>193</sup> and the head voice with higher pitches. Despite major advances in the ability to identify the physiology of registration events

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<sup>191</sup> Coffin, *Historical Pedagogy*, 2.

<sup>192</sup> Coffin, *Historical Pedagogy*, 6-7.

<sup>193</sup> Coffin, *Historical Pedagogy*, 27.

beyond just the “head” and “chest” voice, many singers still only refer to these two events. This is probably because singers either feel the sympathetic vibrations of the voice as taking place in one of these two areas, and it is a simpler system to think about.

In the past century our understanding of the physiology behind the dramatic changes in timbre experienced throughout the voice has greatly expanded. Two of the key muscles groups that have been identified are the cricothyroids (CT) and the thyroarytenoids (TA).<sup>194</sup> These muscles are responsible for changing the shape and thickness of the vocal folds, resulting in changes of pitch and color (this is, of course, a major over-simplification of the complex action of the laryngeal musculature, but it fulfills the purposes of this work). The CT muscles are largely responsible for changes in pitch for higher pitches. These muscles lengthen and thin the vocal folds. The increased tension (not a “bad” tension, it is the taughtness of the cords) causes the folds to come back together more quickly as they are longitudinally stretched, increasing pitch. A byproduct of this increased tension of the folds is an increase in air pressure as the taught cords resist the flow of air more. This increase in air pressure also causes an increase in loudness; thus loudness is a secondary function of the CT muscles, one that can learn to be controlled.<sup>195</sup> The TA muscles oppose the CT muscles. The TA muscles, therefore, shorten and thicken the vocal folds and are responsible for lower pitches. The thickness of the true vocal folds when the TA muscles are activated is very great, and it causes the glottis (space between the vocal cords) to close firmly and for a large portion of each vibratory cycle.<sup>196</sup> This glottal closure makes singing in a TA-dominated register a highly efficient vocal process, a fact that becomes quite important in belting and mix-belting. Other, more complex, factors involved in

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<sup>194</sup> McKinney, *Diagnosis*, 70-71.

<sup>195</sup> Vennard, *Singing the Mechanism and the Technic*, 60.

<sup>196</sup> Vennard, *Singing the Mechanism and the Technic*, 66.

TA production also make the tones relatively loud and rich in harmonic partials that can be accentuated or attenuated by different resonators.<sup>197</sup> The opposing functionalities of these sets of muscles make them responsible for very different tone qualities or timbre, resulting in registers. The thinning and lengthening process of the cricothyroids is often associated with what people refer to as head voice<sup>198</sup> or the light mechanism.<sup>199</sup> The thick and short nature of the cords during thyroarytenoid action is known most commonly as the chest voice, or as the heavy mechanism.<sup>200</sup> Throughout most of the voice, there is some action of both the CT and TA muscles. To accommodate for this combined action, James C. McKinney<sup>201</sup> and Melissa Malde<sup>202</sup> suggest using the following approach to viewing the voice in terms of varying muscle action:

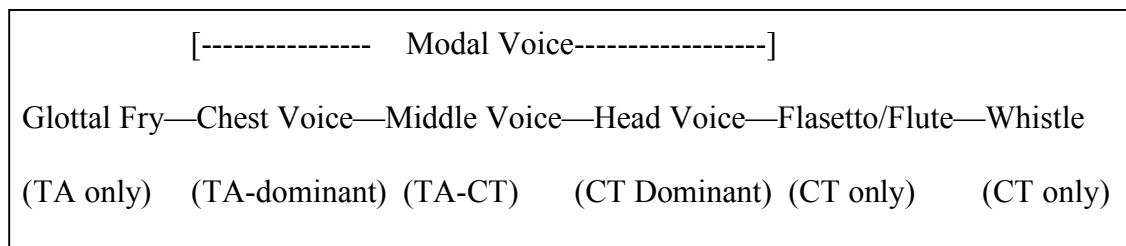


Figure 3.1. Diagram of vocal registers on a continuum from strictly thyroaretenoid muscle action to strictly cricothyroid muscle action, adapted from McKinney, *Diagnosis and Correction*, 96 and Malde, *Creating a Singing Sound*, in *What Every Singer Needs to Know*, 99-100.

As you can see, the voice is on a continuum in terms of TA dominant to CT dominant production. The registers on either extreme are rarely used, with glottal fry<sup>203</sup> being avoided by

<sup>197</sup> Vennard, *Singing the Mechanism and the Technic*, 66-67.

<sup>198</sup> Miller, *Training Soprano Voices*, 27.

<sup>199</sup> Vennard, *Singing the Mechanism and the Technic*, 67.

<sup>200</sup> Vennard, *Singing the Mechanism and the Technic*, 66.

<sup>201</sup> McKinney, *Diagnosis and Correction*, 96.

<sup>202</sup> Malde, *Creating a Singing Sound*, in *What Every Singer Needs to Know*, 99-100.

<sup>203</sup> Glottal fry is found at the lowest end of the range, and it involves complete release of the CT muscles and a loose glottal closure. This results in the “cracks” and “rattle” that are observed. The problem with fry is that it inhibits the use of the upper registers of the voice and it produces



most female MT singers. The flageolet<sup>204</sup> register zone is not often used in musical theatre.

Richard Miller proposes a classification of registers based on physiological events or shifts that result in transition areas, called *passaggi* (*passaggio*- singular):<sup>205</sup>

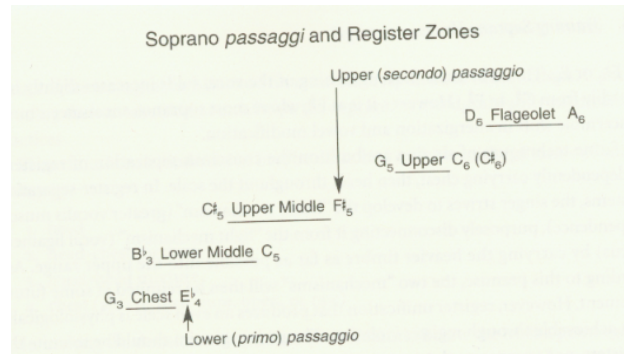


Figure 3.2. The registers and *passaggi* of the soprano voice as described by Richard Miller, from Miller, *Training Soprano Voices*, 25.

Miller recommends avoidance of the chest register, which is very TA dominated, for all singing except that where comic or dramatic effect is needed because he believes it to have a “vulgarity of timbre”. He also believes it to be detrimental to vocal health.<sup>206</sup> Miller’s idea of registration is widely accepted by many classical pedagogues; however, it does not account for many of the timbres sung by musical theatre actresses—notably the belt and various approaches to the middle voice, which is the part of the voice ranging from C<sup>4</sup> up to between E<sup>5</sup> and F<sup>#5</sup> where either TA or CT dominant production can be used.

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uneven tension across the vocal folds. Summarized from McKinney, *Diagnosis and Correction*, 94-96.

<sup>204</sup> The flageolet or whistle register zone refers to the highest notes of the voice, typically above C<sup>6</sup>. The TA muscles are completely released, the CT muscles are engaged, and the glottis does not fully close, but the oscillation of the glottis is enough to produce sound. Summarized from McCoy, *Inside View*, Chapter 6.

<sup>205</sup> Miller, *Training Soprano Voices*, 25.

<sup>206</sup> Miller, *Structure of Singing*, 136.

The “middle voice”, a subsection of the modal voice described by Malde, McKinney, Doscher, and Brown,<sup>207</sup> is a key part of MT singing for women, yet there are many different ways to approach this section of the voice. In many classical pedagogies, women are taught that there is “no danger in ‘carrying down head voice’” and that they should use this approach as they descend the scale no matter what (Audio Appendix 3.1).<sup>208</sup> The physical damage in this approach might not be huge, although it does typically create rigid rather than flexible laryngeal positions during phonation. The larger problem is that tone production by musical theatre standards is in great danger! Musical theatre is an idiom in which singing is an extension of speech; therefore, huge shifts in color are unacceptable and unbelievable.<sup>209</sup> Musical theatre women must know how to relate their speaking voice to their singing voice<sup>210</sup>, and this almost never includes carrying head production all the way down to middle C<sup>4</sup>. The other aspect of musical theatre that is ignored by the classical view of registration is belting. Belting has many definitions (discussed later), but for now defining it as the “power singing” of musical theatre—and other Contemporary Commercial Music (CCM) idioms— will suffice.<sup>211</sup> Its omission from classical views of registration is partially caused by the lack of belt quality in classical music and also because many classical pedagogues believe it to be unhealthy and a lesser form of singing—even calling the voice of all professional belters the “untrained professional voice”.<sup>212</sup> Luckily this view has changed and various teachers have begun to devise systems to define the sounds made by musical theatre women.

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<sup>207</sup> Brown, *Discover Your Voice*, & Doscher, *Functional Unity*.

<sup>208</sup> Miller, *Training Soprano Voices*, 26.

<sup>209</sup> Saunders-Barton, *Bel Canto Can Belto*

<sup>210</sup> Joan Lader, interview with Joan Melton, *Singing in Musical Theatre*, 53.

<sup>211</sup> LoVetri, *Contemporary Commercial Music*, 260.

<sup>212</sup> Miller, *Training Soprano Voices*, 26.

Mary Saunders-Barton devised a system referred to as the vocal arc that places chest voice at the far left end (for pitches E<sup>3</sup> to C<sup>4</sup>), followed by the speaking mix (for pitches C<sup>4</sup> to about E<sup>5</sup>), then the soprano mix (for pitches F<sup>5</sup> to about E<sup>4</sup>), and the head voice is at the other end (for pitches E<sup>5</sup> and higher). She places the belt as something extending the entirety of the female's vocal range, and the reasoning for this expansive range will be fully discussed in my section on belting.<sup>213</sup> This system of looking at the voice for musical theatre women has clear similarities to Miller and Malde's models; however, it more directly addresses the needs of these singers. In Barton's view, which is echoed by other musical theatre pedagogues like Joan Lader<sup>214</sup> and Tom Gregg<sup>215</sup>, there is "no shutting the door on either component, ever...it's all coordinated".<sup>216</sup> By this she means that, especially in the middle, there is always some involvement of both the chest (TA dominated sound production) and the head (CT dominated sound production) and that at the soprano *passaggio*, all women can move *smoothly* into head voice because they have coordinated their CT involvement.<sup>217</sup> Her approach to teaching is resonance based, where as others are more entrenched in physical registration events happening in the laryngeal musculature. Jeannette LoVetri is adamant that all teachers and singers must firmly understand registration events in order to authentically arrive at qualities like belt and the Broadway mix.<sup>218</sup> The Estill approach is quite similar. Tone qualities are achieved through selective activation and relaxation of any combination of 13 different structures.<sup>219</sup>

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<sup>213</sup> Saunders-Barton, *Bel Canto Can Belto*

<sup>214</sup> Joan Lader, interview with Joan Melton, *Singing in Musical Theatre*, 34.

<sup>215</sup> Thomas Gregg, interview with author, March 2011.

<sup>216</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>217</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>218</sup> Jeannette LoVetri, interview with Joan Melton, *Singing in Musical Theatre*, 47-48.

<sup>219</sup> Dunlore, "13 Compulsory Figures," *Studio Sing Sing Sing*, accessed April 10, 2011, <http://www.studiosingsingsing.com/estill-training/whatis-estill/92-cumpuls-figures.html>

<b>Anatomic Element</b>	<b>Relationship to the Voice</b>
True Vocal Fold	Breath & Tone
TVF Body-Cover	Breath & Intensity
False Vocal Folds	Avoid Constriction
Thyroid Cartilage Tilting	Clear Tone
Cricoid Cartilage Tilting	Belting
Aryepiglottic Sphincter	Singers Formant
Velum	Resonance & High Soft Singing
Larynx	Treble & Bass resonance
Tongue	Equalize Vowel Resonance
Jaw	Treble & Bass Resonance
Lips	Treble & Bass Resonance
Head & Neck Anchoring	Power
Torso Anchoring	Power

Figure 3.3. Table of the 13 anatomical structures that are trained to be specifically activated or relaxed and the subsequent relationship to the voice in Estill Voice Training, from Dunlore, “13 Compulsory Figures”.

Mary Klimek, Course Director for Estill Voice International, emphasizes that Jo Estill’s approach is a way to define the same things as Mary Saunders-Barton’s view. The two methods can be used to inform the training in different ways.<sup>220</sup> Indeed, when comparing methods to teach the middle voice, belt voice, and head voice, the semantics and methods may be different between the teachers mentioned, but they all end up with a very similar sound and therefore, one can presume, similar physical functioning. I think that it is incredibly important for a student of voice to assess the best approach for her. Some students respond very well to resonance based teaching and are able to produce healthy, aesthetically viable sounds by making sure they “feel” the sound in the correct places. Other students need to be told the exact physical steps that need to be taken to find a certain tone quality. Some teachers use a combination of these methods, and others specialize. It is up to the student and teacher together to make sure that what is happening in the voice studio benefits the student.

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<sup>220</sup> Mary Klimek, interview with author, February 2011.

The myriad of vocal qualities sung by musical theatre females necessitates an approach that develops all of the registers and timbres mentioned in the vocal arc. I have found this organization the most helpful and will proceed using it as a guideline. I will discuss the head voice, soprano mix, speech-level mix, and belting. The next portion of the chapter will address the physiology of these registers, how to foster their growth, and their applications to different character types in musical theatre.

### *The Head Voice*

The head voice is the part of the voice that is most often neglected by young musical theatre actresses. Many girls who sing musical theatre in middle school or high school got their starts by singing “Tomorrow” from *Annie* or “On My Own” from *Les Miserables*. These girls typically remain singing similar repertoire and call themselves “natural belters”. Unfortunately this means that many of them never develop the head voice, which is the CT-dominant, thinner (not softer) sound that dominates operatic and legit musical theatre. A full, operatic head voice lends maturity and poise to a character. A lighter quality head voice lends youth, innocence, and sweetness to a character. Singers such as Kristin Chenoweth, Sierra Boggess, and Christiane Noll exhibit exceptional use of the head voice in shows such as *Candide*, *Wicked*, *Phantom of the Opera*, and *Ragtime*.<sup>221</sup> Richard Miller points out that the distinct head voice lies above the *secondo passaggio* that is somewhere between E<sup>b5</sup> and F<sup>#5</sup>. From about these pitches upwards to C<sup>6</sup> or C<sup>#6</sup> there is no TA involvement (above this lies the whistle register or flageolet where there is essentially no TA action. There is no TA driven thickness to the cords in this register, as only

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<sup>221</sup> It should be noted that each one of these women also has exceptional capabilities as a belter, demonstrating how a solid and expansive technique allows for flexibility and contrast in the voice.

the top layer of the chord is used).<sup>222</sup> As this quality is carried downward to the area in the middle of the vocal arc, CT action is constantly being balanced with TA action, yet it is possible to shift the balance towards CT dominated singing and bring that quality down.<sup>223</sup> Many singers do not, however, realize the limitation of this register—as you bring it lower, the volume decreases and fades to nothing especially below the *primo passaggio* at F<sup>4</sup>.<sup>224</sup> Scott McCoy points out that, where the *primo passaggio* is a physiologic shift, the *secondo passaggio* is a resonance shift since CT dominated production has been the main source model for almost an octave before this transition, at least in classical pedagogy.<sup>225</sup> The major goal of development in this register is to develop evenness of tone production up and down the scale.

For many musical theatre teachers teaching females, the starting place in vocal development, after discussions of breath and alignment, is in developing the head voice. Mary Klimek says that “in musical theatre people have to be able to sing legit, so we start with a classical-like production and go from there”.<sup>226</sup> This is especially appropriate since so many musical theatre singers have a lot of trouble even creating a pure head voice sound because of the “I’m a belter and that’s what I do” mentality that dates back to the mid 1900s.<sup>227</sup> Developing this part of the voice will aid a singer in finding the most resonance with the least amount of pressure, a skill that then can be applied to any medium. One effective warm-up for finding the head voice comes from Mary Saunders-Barton’s work:<sup>228</sup>

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<sup>222</sup> Miller, *Training Soprano Voices*, 21-27.

<sup>223</sup> The opposite action, bringing TA dominated production up the scale, will be discussed in later sections.

<sup>224</sup> Mary Klimek, interview with author, February 2011.

<sup>225</sup> Scott McCoy, interview with author, January 2011.

<sup>226</sup> Mary Klimek, interview with author, February 2011.

<sup>227</sup> Elisabeth Howard, interview with Joan Melton, *Singing in Musical Theatre*, 5.

<sup>228</sup> Saunders-Barton, *Bel Canto Can Belto*.

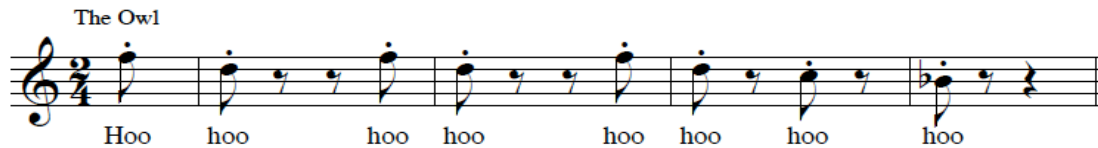


Figure 3.4. Exercise for finding the “hoot-space”, or head voice, from Saunders-Barton, *Bel Canto Can Belto*.

When doing this warm-up, it is very important that not too much air is forced through the larynx. It is often helpful to have a student find this space outside the context of a “sung” phrase, as many singers get bogged down by the concept of “singing and selling” a phrase, something I saw when observing a lesson with Mary Klimek<sup>229</sup>. Maria Spacagna, an internationally renowned soprano teaching classical voice, will have women perform a “little girl sigh” or do a “Julia Child” impersonation to find this quality without pressing (Audio Appendix 3.2). The result is head voice production that is free to spin and resonate, as opposed to a forced head voice sound with no brilliance. Another effective cue for finding the thyroid tilt that lends itself to a rich, round tone is having the student do a “whimper” or sing on an “ng” (Audio Appendix 3.3). Having a student do this into the following warm up helps find and maintain that space:

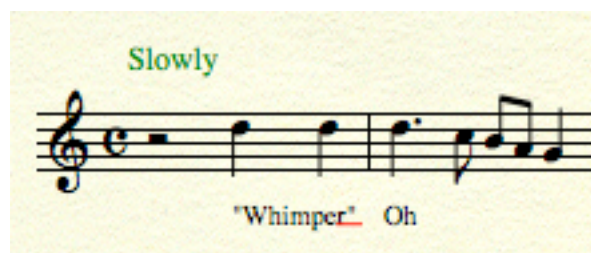


Figure 3.5. Exercise for finding the “whimper” feeling that correlates with thyroid tilt and placement in the head voice.

Once this timbre has been identified and the singer easily accesses it, the next step is developing an even line with unforced vibrato throughout. I often have to remind students to maintain that “whimper” feeling as they descend because it is quite foreign to those who have

<sup>229</sup> Mary Klimek, interview with author, February 2011.

never developed their head voice. The development of legato in this register is key to vocal growth as it will reinforce even breath flow and musicality—maintaining balanced breathing is essential to developing even tone production. A useful exercise for combining with a clean onset comes from Richard Miller’s *Training Soprano Voices*.<sup>230</sup>

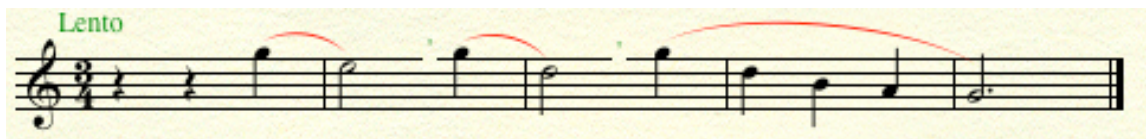


Figure 3.6. Exercise for the development of legato line, consistent vibrato production, and integration of breath management and support with tone production, adapted from Miller, *Training Soprano Voices*, 129.

The goal of this exercise is to combine legato, phrase shaping, even timbre, clean onset, and consistent vibrato. While working on these concepts the singer should keep in mind that the balanced-breathing approach to breath will offer superior support and control to only abdominal and thoracic breathing.<sup>231</sup>

In order to develop the upper-most parts of the soprano head voice, the arpeggiated 10<sup>th</sup> is a useful exercise:



Figure 3.7. Arpeggiated 10<sup>th</sup> exercise for working on the upper head voice.

The two main points to keep in mind during this warm-up are not pushing too much air through the vocal tract and vowel modification based on formant tuning. Many women, especially musical theatre singers who think of “reaching” or “pushing up” for a high note will contract the

<sup>230</sup> Miller, *Training Soprano Voices*, 129.

<sup>231</sup> Miller, *Training Soprano Voices*, 129-130.



rectus abdominus, creating a major increase in subglottic pressure. In the lesson observed with Mary Klimek, she commented: “I abhor this type of rectus engagement”. To correct this problem, which was resulting in instability and strident tone, she asked the singer to feel a release of the rectus and activation of the transverse abdominus area (in between the pelvic bones). The resulting sound was freer, more rich, and completely appropriate for either classical singing or legit musical theatre.<sup>232</sup> The second point, the one about vowel modification, becomes important because formant tuning is crucial in the area above the staff. In short, formant tuning refers to changing the shape of one’s resonators to more closely match the fundamental of a given vowel. This has the effect of optimizing timbre, amplitude, and ease of vocal production. For a soprano in this particular exercise, she will find it easier to modify towards an /ɔ/ (like “law”) around the *secondo passaggio* between E and G, and then to an open /a/ (like “father”) for notes above this.<sup>233</sup> Some composers are sensitive to this acoustic factor, but others are not at all. In the case of a composer who is not sensitive to the vowel modification requirements for this register, the singer has to find the notes on whatever vowel works best first. First and foremost, she has to find healthy vocal function on the phrase. Once this is established, she can begin to experiment by “adding in” more of the desired vowel. However, compromises will have to be made because in the highest parts of the voice, going away from formant results in a very thin, tight timbre unacceptable by most standards.

Steven Schwartz is one composer who actually is quite sensitive to the vowels that are easiest to sing in the upper head voice. The opening number from *Wicked* requires Glinda to sing quite proficiently in this register. One of the major technical problems that an actress faces in the following phrase is to sing without constricting and forcing a big sound with too much air flow:

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<sup>232</sup> Mary Klimek, interview with author, February 2011.

<sup>233</sup> McCoy, *Inside View*, Chapter 6.

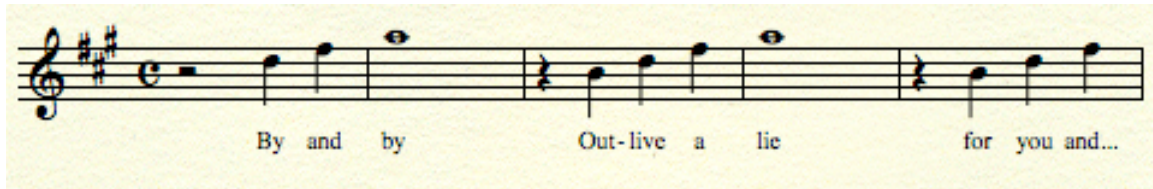


Figure 3.8. Excerpt from “No One Mourns the Wicked”, transcribed from original cast recording.



Figure 3.9. Modified arpeggiated 10<sup>th</sup> exercise to develop sustaining the upper head voice.

Modifying the arpeggiated 10<sup>th</sup> exercise to have a sustained top note on the second 10<sup>th</sup> (shown above), so long as the approach is not too heavy, will teach a soprano how to keep the ease of quick movement throughout the register while sustaining the high note (Audio Appendix 3.4). Luckily for the singer, Steven Schwartz graciously writes a vowel quite close to the nearest vowel formant, /a/, on the high A<sup>5</sup>s. The major trouble lies in the diphthong on “by”. The singer must be careful not to approach the diphthong too soon, otherwise the raising tongue position will corrupt the vowel and the tone will become less vibrant. Glinda has to be able to sing this note without a major shift in color or vibrato, which could result if a singer goes away from the formant. This shift is not only stylistically not desired, audiences expect to hear uniformity of color when singing in the same register, but it is also indicates poor technique and muscular tensions. In order to keep singing and trying to get out a clear, round sound in the head register, many women who are not forming the correct vowel will try other methods to get the desired sound—depressing the larynx, forcing the jaw open and creating tension there, tensing the tongue, forcing more air over the vocal folds. In order to really master the upper parts of the head voice, a woman must discover in her own voice, with the help of a teacher, where the vowels need to be modified.

Clara from *The Light in the Piazza* must also develop excellent use of her head voice. In the song “Say It Somehow”, she must sing the word “ah” on pitches from E<sup>b4</sup> to A<sup>5</sup> while keeping them all in the same timbre, much like the ideal view of uniform registers that Miller sets forth.<sup>234</sup> A singer’s training for the following segment must include developing a way to quickly move around this register while keeping consistent tone during ascending and descending passages:

Figure 3.10. Transcription of “Say it Somehow” from *The Light in the Piazza*.

One of the qualities that Estill teachers identify in operatic head voice is the “cry” quality, which is basically a retraction of the false folds as well as utilizing thyroid tilt.<sup>235</sup> This posture was taught to a student by asking her to utilize the feeling of a “whimper” while singing an “ng” sound (like at the end of the word “sing”). She then continued to maintain this feeling when

<sup>234</sup> Miller, *Structure of Singing*, 132-142.

<sup>235</sup> Mary Klimek, interview with author, February 2011.

opening to the “ah” vowel. The result was a much more open and vibrant head voice.<sup>236</sup> This cry, in addition to utilizing scuillo or twang resonance throughout the range, helps keep the voice uniform. Scuillo is the forward, bright quality associated with “ring” in classical singing. In order to find it, an effective exercise is to have a singer say “nyuk nyuk nyuk” with a raised palate so the tone does not become nasal. When I teach, I would have a singer sing the phrases from “Say It Somehow” but start with a “nya” instead of a glottal “ah”. This will reinforce the scuillo quality. No matter what, the goal of a singer’s technical approach to this song should be one of maintaining uniformity of color and legato that can reinforce the dramatic action—two lovers excited to be alone for the first time. An actress has to have all of these technical demands be second nature so she can fully commit to the scene. Without uniformity of tone color, the changes in voice will become distracting and the dramatic action on stage could easily become, or at least be perceived by an audience as, insincere.

The importance of developing a clean, even head voice can not be under-estimated. Many teachers begin their vocalizing with students here, always checking back to make sure there is healthy vocal functioning. Natalie Weiss, a Broadway actress who is primarily a belter, said that during her undergraduate studies in a musical theatre BFA program she was always singing art songs or arias alongside contemporary musical theatre pieces. Now, she always begins her warm up with her head voice before moving into other colors and registers.<sup>237</sup> Growth and development of the head voice is the aspect of musical theatre pedagogy that is most firmly based in classical pedagogy. Many of the differences between the two styles in this same

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<sup>236</sup> Mary Klimek, interview with author, February 2011.

<sup>237</sup> Natalie Weiss, interview with author, August 2010.

register come down to diction and style, rather than vocal production itself. The subsequent colors of the voice diverge more from the classical idiom.

### *The Soprano or Legit Mix*

For a very clear example of what is meant by the term soprano or legit mix, also called head-dominated mix or CT-dominant mix, one should listen to early recordings of Julie Andrews.<sup>238</sup> Her early singing and speaking voices provide the most widely known example of this quality. Some contemporary singers who utilize this quality are Audra McDonald, Rebecca Luker, and Victoria Clark. The soprano mix can give a character sweetness, naivety, and vulnerability. I view the soprano mix as a subdivision of the middle voice as described by Malde's model voice, since there is both CT and TA activation involved. In the typical view of the middle voice, most of the discussion merely says that both TA and CT muscles are active. However, the balance can be shifted in either direction, and this creates two very different voice colors: the soprano mix and the speaking mix. Therefore, in musical theatre the distinction between the two needs to be made.<sup>239</sup> The soprano mix has a very small amount of speech quality in it (a result of laryngeal position, pharyngeal space, and slightly more TA activation), which is what differentiates it from a "pure" or "tipped" head voice quality (Audio Appendix 3.5). One of the problems voice teachers face in approaching the soprano mix is that the term "mix" gets thrown around a lot by singers and teachers, but it is not terribly well defined at this point. Mary Klimek proposes that it involves thin fold action and a fair amount of thyroid tilt,

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<sup>238</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>239</sup> Classical singers would also benefit from moving away from the convention of utilizing only CT dominant vocal production for lower notes in the range.

which results in its clear, light tone.<sup>240</sup> The sound production is similar to that proposed by Miller in the space between the *primo passaggio* and the *secondo passaggio*, but it is not as robust of a sound.<sup>241</sup>

Singing in a soprano mix is often a choice associated with the Golden Age musicals of Rogers and Hammerstein, Lerner and Lowe, Frank Loesser, or some more contemporary writers like Sondheim (although he requires many tone colors) and Adam Guettel. Characters who utilize this quality are often young, innocent, beautiful, and pure. Clara from *The Light in the Piazza* uses this quality extensively *in addition* to the ‘tipped’, more operatic head voice. Amy Justman has studied both musical theatre and classical technique extensively, and the biggest difference in the approach to the middle, she says, is having a slightly higher tongue placement and keeping the vowels “wider but not spread”.<sup>242</sup> By spread she means forming a vowel that becomes so wide and with relatively little palatal lift that the tone becomes nonvibrant, strident, or airy. A singer avoids this by being sure to sing with the proper balance of muscle action and air flow so that excess air is not being wasted or prohibiting closure of the glottis. Mary Saunders-Barton<sup>243</sup> and other teachers like Tom Gregg<sup>244</sup> and Natalie Weiss<sup>245</sup> find this soprano mix through speech, since it is a quality that some people do speak with. One exercise that is quite effective for finding this register is having students say “how are you today” in a very Julie Andrews-esque manner (Audio Appendix 3.6). This tends to work because of the widespread familiarity of her early films. One caveat to this approach is that a teacher must make sure that when students speak in this quality, they do not depress the soft palate. This is a common error

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<sup>240</sup> Mary Klimek, interview with author, February 2011.

<sup>241</sup> Miller, *Structure of Singing*, 135.

<sup>242</sup> Amy Justman, interview with author, January 2011.

<sup>243</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>244</sup> Thomas Gregg, interview with author, March 2011.

<sup>245</sup> Natalie Weiss, Interview with author, August 2010.

among people who believe that they are “speaking in their resonance” when all they are really doing is speaking with a forced opening of the throat, depressed larynx, and a constricted pharyngeal wall. After successfully finding this quality in speech, a teacher can have the student sing the phrase using the same quality:<sup>246</sup>

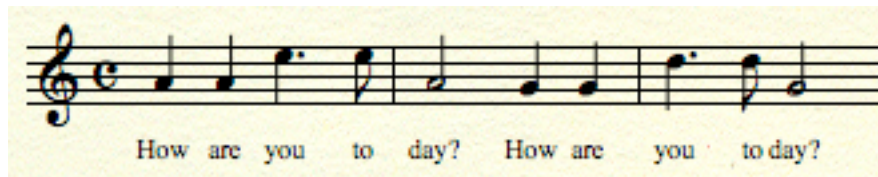


Figure 3.11. Exercise for developing the soprano mix, transcribed from Saunders-Barton, *Bel Canto Can Belto*.

As a singer descends toward F<sup>4</sup> in this quality, it is imperative—if one wants to maintain the same tone color—that a CT-dominated sound is maintained. There is some speech in the sound, however one does not want to dip into a speaking level mix or chest voice.

The need to maintain this mix down the scale demonstrates the benefit of teaching classical pieces alongside musical theatre songs.<sup>247</sup> In the classical idiom, women develop a very strong, connected soprano mix that can be taken down the scale with ease, through balancing resonance and muscle action. The major difference between the classical middle and the soprano mix of musical theatre is really the position of the larynx. In an observed lesson, Mary Klimek had a student perform the following exercise in several different ways:<sup>248</sup>

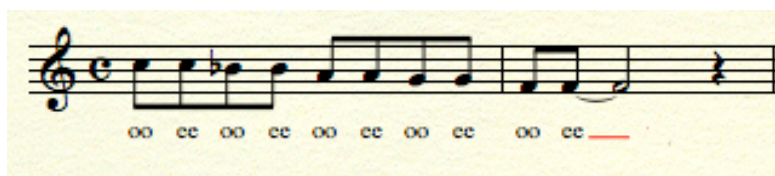


Figure 3.12. Exercise for demonstrating the difference in speech-level mix and soprano mix. This exercise is also very useful for finding thyroid tilt.

<sup>246</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>247</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>248</sup> Mary Klimek, interview with author, February 2011.

The first time through, it was fairly speech-like but clearly in a soprano mix (Audio Appendix 3.5). The student used the whimper feeling in order to keep the thyroid cartilage tipped the whole way down. Also, to make sure that the tone contained scullo and not nasality, the student was told to open and close the nose as she sang—this tests for nasality because, when a tone has a nasal quality, air is passing through the sinus cavity. Therefore, when the nose is closed during nasal production, the tone changes. The second time she sang the exercise on the same pitches, the student was told to just slightly lower the larynx and the consonant “L” was added to the beginning. This approach demonstrated a clear contrast between the operatic middle and the legit mix<sup>249</sup>. This exercise can be taken up and down the middle voice and done at various tempi in order to develop this feeling and the ability to sustain it consistently.

The title song of *The Light in the Piazza* demonstrates the necessity of a strong development of the soprano mix, as musical directors are often quite adamant about not using a full head voice for the notes between C<sup>#5</sup> and E<sup>5</sup> as the singer ascends the staff.<sup>250</sup> In the original cast recording, Kelli O’Hara successfully maintains the soprano mix as she sings the following phrase:

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<sup>249</sup> Mary Klimek, interview with author, February 2011.

<sup>250</sup> Amy Justman, interview with author, January 2011.



The image shows a musical score for the song "The Light in the Piazza" from the musical of the same name. The score is in 4/4 time and the key signature has two sharps (D major). It consists of two systems of music. The first system starts at measure 47 and ends at measure 48. The lyrics are "side. I see it!". The second system starts at measure 49 and ends at measure 50. The lyrics are "Now I see it!". The score includes vocal lines and piano accompaniment. There are various musical notations such as "cresc....", "ff", and fingerings (5, 6) for both hands. The score is marked "Rev. 4/17/05" and "4B".

Figure 3.13. Excerpt of “The Light in the Piazza” from *The Light in the Piazza*.

Amy Justman has studied this role, and when asked how to approach this part of the song she says that she focuses on slightly more costal breathing (though still with much abdominal engagement, the balance is just shifted) and a higher placement of the tongue. In order to teach this more thoracic-dominated breathing, I have students place their hands around their ribs and feel the expansion upwards-and-outwards against them. The student will, and should, notice some release and subsequent engagement of the abdominals, but the focus and awareness is mostly on costal breathing. In performances of the song, sometimes the E<sup>5</sup>s and F<sup>5</sup>s end up getting tipped into a full head voice, because it is an easier type of tone production that high<sup>251</sup>—something that Kelli O’Hara did in live performances.

The soprano mix is appropriate for many legit musical theatre pieces both from older generations and contemporary works, and it is something that women should definitely develop. A strong middle voice is key to success in singing musical theatre. In the soprano mix, CT action dominates the vocal production; however, the balance can be shifted the other direction to a more

<sup>251</sup> Amy Justman, interview with author, January 2011.

TA domination production which I call the speech-level or speaking mix. The “middle” voice from the modal model can be divided into these two parts, which are primarily used by actresses in very different kinds of roles. The TA dominated production, like the soprano mix, is also based on speech, but it is far more appropriate for many contemporary musical theatre pieces where a belt quality is also utilized.

### *The Speech-Level Mix*

The speaking mix is the first of two qualities of the voice that are not well explored within classical vocal pedagogy, because they are not used. There are some classical teachers who are finally beginning to experiment with speech to find scullio in the lower registers, but it is far from uniform practice. Musical theatre female singers who frequently use the speech level mix are Karen Olivo, Jennifer Damiano, Lea Michelle, and Lea Salonga. The speech level mix is a sound that is entirely appropriate for shows such as *Next to Normal*, *Spring Awakening*, and *Legally Blonde*. Joan Lader says that “It’s important to me that singers understand their speaking voice and how it relates to singing, how we can vary it, and to understand the differences between opera, musical theatre, jazz, and pop”.<sup>252</sup> Within musical theatre, much of the singing in contemporary musicals directly derives from speech. The larynx is at speech level and this tone quality can be taken up the staff, as shown in the vocal arc.<sup>253</sup> Scott McCoy, Mary Klimek, Mary Saunders, Tom Gregg, and Natalie Weiss all utilize speech exercises to some degree or another, because *healthy* speech informs so much of how we sing.<sup>254</sup>

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<sup>252</sup> Joan Lader, interview with Joan Melton, *Singing in Musical Theatre*, 33.

<sup>253</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>254</sup> Janice Chapman, a classical pedagogue, provides an excellent description of how to use primal sound to inform all kinds of singing in chapter two of her *Singing and Teaching Singing*, 17-22.

Many people assume that we speak only in our chest voice. A major problem for professional voice users is that, while singing technique may be healthy, they speak in the lowest portion of the voice or even in the “vocal fry”<sup>255</sup> register (Audio Appendix 3.7). While this is the case for some people who speak only at the extreme bottom of their range, many women have some CT action in their speech as well, and this is advantageous when it comes to musical theatre vocal production. The challenge in developing a speech level mix is to bring that speech-like quality up without forcing it to be too heavy and chest-dominated. Many people believe speech quality to be only chest voice, which is why so many problems arise when women try to use “full chest” on a B<sup>4</sup> or C<sup>5</sup>. What they need to realize is that as you ascend you can bring in more and more CT action, without compromising the speech-like quality of the voice.<sup>256</sup> I often tell students to think about how they inflect their speech. Especially for women, most people will use a wide range of inflection that does not involve “shouting” while climbing up the register. There is a huge variety of inflection and range used in speech, and bringing a students awareness to this helps them unlearn the convention of “bringing up the chest voice” and understand speech level resonance.

In the speech level mix, the palate is high and the larynx is at speech level. Finding this speech level mix is often the hardest part of voice for some women, while others speak with this quality already. Those girls who can not easily speak above F<sup>4</sup> will not be able to access the

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<sup>255</sup> Vocal fry refers to a registration event where the CT muscles are completely disengaged and the glottis is barely closed. This low efficiency process allows for air to “bubble” through and cause a rattling sound at a very low frequency. There are therapeutic uses of this register, as it can force a singer to limit subglottic pressure and laryngeal tension. However it’s excessive use in speech or in singing will inhibit the production of higher tones. Summarized from McKinney, *Diagnosis and Correction*, 95-96.

<sup>256</sup> Mary Klimek, interview with author, February 2011.

speech level mix nor the belt voice in a healthy manner.<sup>257</sup> Therefore, before even trying to develop the speech level mix, it is imperative that one addresses issues in normal speech production including limited range, hoarseness, excessive use of vocal fry, and tension of the neck and laryngeal muscles.<sup>258</sup> Once a singer's speech production is healthy, developing the speech-level mix is a much easier task.

One of the most effective ways to cultivate a healthy and sustainable speech level mix in a singer is to use call and response speech exercises. One of the keys to this approach is making sure that there is some kind of dramatic intent behind the phrase and that it falls within the vernacular of the student. In her *Bel Canto/Can Belto* tutorial, Mary Saunders-Barton gives a list of phrases that she uses including “damn cat!”, “never, never, no!”, and “how dare you?!” that are often quite effective for finding this placement in women. She adds that people should make up their own reminding teachers and students that “Attitude helps! Be Playful!”<sup>259</sup> In trying to find new phrases that work, an exercise I borrowed from Natalie Weiss<sup>260</sup> is to simply ask students about their day or week and the people that they've been with.<sup>261</sup> As the student talks, the teacher must notice a specific name that the student speaks with exceptional clarity. With one of my students, the most clearly spoken name was “mom”. From there, the student said “mom, you're mean” on a variety of different pitches, which also has the effect of helping the student not depress the palate as she ascends. One of the keys to these speech exercises is to use

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<sup>257</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>258</sup> This can be done within the voice studio; however, if problems in the speaking voice are extreme, then a speech therapist should be sought out.

<sup>259</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>260</sup> Natalie Weiss, interview with author, August 2010.

<sup>261</sup> There are some teachers who will not vary from their set of ‘key phrases’ that they use to arrive at this quality. This becomes detrimental to the singer's progress, as the speech will not seem natural if the phrase is completely uncomfortable or foreign for them to say.

a wide range of pitches from C<sup>4</sup> to E<sup>5</sup>. Students should be able to use as much range as possible on these exercises, so long as there is still clarity in the tone.

After experimenting with different phrases and pitches, these spoken phrases should be put to specific notes and sung while *maintaining the speech quality*. This process starts with teaching the student to speak on a given pitch, a skill that typically comes relatively easy to students once it is pointed out (Audio Appendix 3.8).<sup>262</sup> Once this is established, different note patterns are used on the spoken phrases. Here is an example of one musical pattern that follows speech inflection:<sup>263</sup>

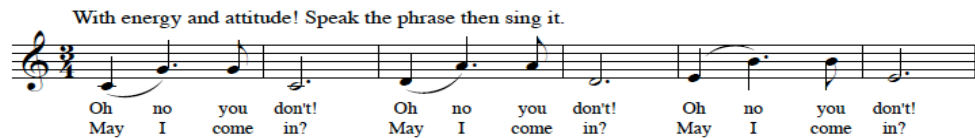


Figure 3.14. Speaking mix exercises, from Saunders-Barton, *Bel Canto Can Belto*

Another one is:

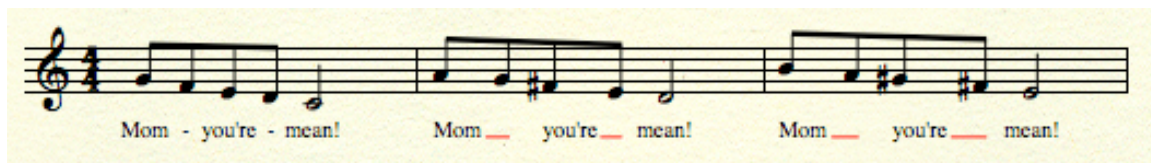


Figure 3.15. Speaking mix exercise, “Mom you’re mean!”.

The key in utilizing these exercises is maintaining the speech level quality without one of two potential problems occurring. The first is the soft palate dropping, which will result in a pressed, forced tone production that cannot be taken up the scale with ease. In order to find the feeling of a raised soft palate, it is effective to think of the feeling at the beginning of a yawn. To do this, keep your mouth closed and your tongue rested on your bottom teeth, then create the sensation

<sup>262</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>263</sup> Saunders-Barton, *Bel Canto Can Belto*.

that occurs at the beginning of a yawn.<sup>264</sup> This feeling should be maintained in the speech-level mix, although there may not be as much loft as in the head voice. The other problem that many singers have is adding too much head mix into their speech level mix. The head voice goes away into nothing as it descends below F<sup>4</sup>, which is a limit to the register that some teachers ignore.<sup>265</sup> Many students have been taught that they have to stay in head voice because it is “healthier”. These women often either speak with a voice that is actually much heavier than needed because they have been taught that the chest voice and head voice are entirely separate or they speak “in their resonance” by artificially creating pharyngeal space and most likely depressing the palate. Staying in head voice as low as possible is not any healthier than utilizing TA action, and it results in an airy, not vibrant, unstable tone that is a complete departure from speech and is unacceptable in musical theatre singing because it sounds nothing like how an actress speaks (Audio Appendix 3.9).

An example of a song that is sung almost entirely in the speech level mix is “Superboy and the Invisible Girl” from *Next to Normal*. This song presents many challenges for the actress playing Natalie. First of all, the majority of the piece lies between D<sup>4</sup> and B<sup>4</sup>, which is a difficult part of the voice to negotiate. The opening phrase demonstrates the challenge that Natalie faces (see following page). The actress has to ask, “where do I place this?” The temptation for those coming from a strictly classical background is going to be to bring the head voice down as low as possible. But this will make the diction almost impossible to hear and the tone quality quite unfocused. For those who believe themselves to be “natural belters” or who have not mastered a balanced use of their CT and TA muscles, the tendency will be to bring a shout-like, abrasive, open chest quality up too high. One solution is to do the same thing with this song as with the

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<sup>264</sup> Malde, *Resonating the Voice*, in *What Every Singer Needs to Know*, 116.

<sup>265</sup> Mary Klimek, interview with author, February 2011.

suggested exercises to find the speaking mix—speak the text on pitches close to those of the actual song while making sure to maintain a clear tone and dramatic intention. Another useful technique is to have the singer say “mmm hmm” (indicating “yes” to a question) and then have her say it again but carry the second “hmm” up the range while imagining a stretch or activation occurring in her abdominals and through her intercostals. This helps the singer to maintain the same forward resonance, she wants to feel “buzziness”<sup>266</sup> all the way up and down. From this exercise, she can then go back into the text while maintaining this same feeling. Oftentimes focusing on slightly more thoracic breathing, still with abdominal release and subsequent engagement however, will aid in this type of production as there is often an increase in subglottal pressure in the speaking mix and belt qualities.<sup>267</sup> Combining the “buzzy” speech quality of the mix, appropriate subglottal pressure, an elevated soft palate, and even breath flow will help a singer to create a viable and healthy speaking mix appropriate for “Superboy and the Invisible Girl” and similar pieces.

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<sup>266</sup> “Buzziness” is typically how singers refer to the sympathetic vibrations they feel in their cheekbones, lips, and face.

<sup>267</sup> Sundberg J, Gramming P, LoVetri J—1993 article

Figure 3.16. Excerpt of “Superboy and the Invisible Girl”, from *Next to Normal*.

In addition to figuring out the technical aspects of the speaking mix, which is imperative, an actress and teacher must address the dramatic intent of the song. How one would say the lyrics as lines will help to inform how the song is sung in terms of placement—so long as the actress speaks in a healthy way. In musical theatre, dramatic intent and action is the first priority, therefore it must inform how the song is sung. The challenge in a song like “Superboy and the Invisible Girl” is for Natalie to be very upset with her mother and convey her frustration, without harming the voice as one might do when shouting in an every day situation. Crisp and clear consonants, choosing of a forward timbre (which can be achieved by slightly narrowing the pharynx), and appropriate physical choices will all help to convey the frustration of the song, without relying on “pushing” the voice to the point of hurting it. One cannot separate technique,



dramatic interpretation, and physicality and still perform in a captivating and sustainable manner. Technique must always enable the dramatic interpretation, never take away from it.

The speaking mix is a use of the modal register that developed out of an aesthetic on Broadway to have singing be an extension of speech. An actress needs to be able to choose this color and then change between the soprano mix or the head voice in order to have an expansive expressive palate. Once these three registers have been explored and mastered to the point of being healthy, belting can be explored. The head voice and soprano mix allow a singer to develop a mastery of the CT muscles and a lofty pharyngeal space. The speaking mix gives a singer the tools to utilize a more TA-dominated production, while balancing it with CT action throughout the range. The speaking mix is also sometimes called the “red carpet to the belt”<sup>268</sup> because of its similarity in production and both of them are typically used within songs.

### *Belting*

Belting is a voice quality that is utilized in many musical theatre shows, and it has been a major part of the soundscape of musical theatre since the 1930s. Belting is a quality that expresses peak excitement, frustration, anger, joy, or sadness—it is not a quality used for conversation or story-telling.<sup>269</sup> Some women who are proficient belters are Ethel Merman, Barbara Streisand, Patti Lupone, Stephanie J. Block, Karen Olivo, and Christiane Noll.<sup>270</sup> This voice quality is found in classic shows such as *Anything Goes* and *Guys and Dolls*, as well as contemporary shows like *Wicked*, *In the Heights*, and *Next To Normal*. Belting is a quality that

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<sup>268</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>269</sup> Further discussion on the placement and use of belting will follow.

<sup>270</sup> Christiane Noll is another woman, like Kristin Chenoweth, whose superb technique allows her to sing operatic, legit musical theatre, and belt musical theatre repertoire.

expresses a character's unbridled emotion, no matter the valence—it can express extreme joy, anger, or sadness and it lends authority and power to the voice.<sup>271</sup>

Within contemporary voice pedagogy, the subject of belting has been tirelessly debated by teachers who love the sound to those who hate it. On one side of the debate are those who find it to be “an exhilarating and joyous voice quality”.<sup>272</sup> On the other side are those who believe that it will undoubtedly cause “aphonic episodes with singers who ignore the canons of beauty, strength and health”.<sup>273</sup> There are many classical voice teachers who tell students that belting is an unhealthy, ugly, damaging use of the voice. This can, undoubtedly be true. Unhealthy belting can be a truly unnerving experience.<sup>274</sup> Incorrect belting often includes bringing the chest voice up far beyond its typical limits without engaging the CT muscles, resulting in a tight and shout-like sound. The singer will most likely also have extremely tense neck, laryngeal, and jaw muscles and the tone will get hoarse towards the top of the range. Somehow, many classical pedagogues assume that this is the type of singing that constitutes the term “belt”, and this type of singing is quite damaging to the vocal folds. Even some chapters of NATS say that the “safety of belting is controversial”, that the sound is tense, and that it contains “no ring”.<sup>275</sup>

The type of singing described above comes no where close to what is typically meant by belting by most teachers and singers today. For exceptional beltors, the voice quality is clear, forward, quite loud, and contains “ring” as well as even vibrato. In their 2009 study, Wendy LeBourgne and colleagues conducted a study to investigate the perceptual correlates of the belt

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<sup>271</sup> Saunders-Barton, *Bel Canto Can Belto*

<sup>272</sup> Mary Klimek, interview with author, February 2011.

<sup>273</sup> Miller, *On the Art of singing*, 119.

<sup>274</sup> Mary Klimek, interview with author, February 2011.

<sup>275</sup> Mapes, *Musical Theatre Category Revisions*, 2.

voice. In doing so, they had a panel of three influential casting directors rate 20 BFA candidates from elite musical theatre training programs, and highest four and lowest four scores were called “elite” and “average” belters respectively. They found that ring, focus, and vibrato were attributes most correlated to elite belting, and all of these contributed to perceived loudness.<sup>276</sup> Their findings are consistent with the attributes that I use to evaluate the efficiency of a student’s belting. Unlike the damaging and uncomfortable sounding belt as described by those who disapprove of its use as a vocal color, belt is an efficient and exciting vocal process that can be done in a healthy and sustainable way. If those warning against its dangers were correct, Barbara Streisand, Patti LuPone, and Bernadette Peters would have all lost their voices many years ago, but all of these women are still belting well into their 60s.

From a physical standpoint belting is a TA-dominant production that relies on expert balancing of the opposing TA and CT muscles. For many belters, the larynx remains at speech level, the soft palate is high, the pharynx is narrowed, and the false vocal folds are retracted.<sup>277</sup> These physical changes manifest themselves in acoustic effects that are quite different from classical production. Martine E. Bestebreurtje and Harm K. Schutte found that many of the perceptual correlates of belt voice (loud, bright and clear production) are a result of using resonant strategies that emphasize higher harmonics and by having a higher closed quotient (CQ) for each glottal cycle.<sup>278</sup> Johan Sundberg and Margareta Thalén found that the “twang” quality that is often used to describe belting is a result of raising the first and second harmonics and lowering the third and fifth, creating a cluster of these high partials.<sup>279</sup> Scott McCoy points out

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<sup>276</sup> LeBourgne et al., *Perceptual Findings on the Broadway Belt Voice*, 678-679.

<sup>277</sup> Scott McCoy, interview with author, January 2011.

<sup>278</sup> Bestebreurtje and Schutte, *Resonance Strategies*, 194-198. CQ refers to the amount of time that the glottis is closed during each vibratory cycle.

<sup>279</sup> Sundberg and Thalén, *What is Twang?*, 654-655.

that while the production of the belt timbre and the male operatic head voice are actually very similar in physiological function, the resulting sound differences are a result of very different formant tuning because of the use of more speech-like, open vowels and the emphasis of higher partials because of the raised larynx and narrowed pharyngeal cavity.<sup>280</sup>

For me, the belt is really just an extension of the speech level mix because of the many physical similarities in production. The major difference is that belt should only be used for a moment of peak dramatic excitement and it is a result of a higher intensity in the vocal production. One should never “belt” an entire song, because then the effect is entirely lost. However, my argument against belting an entire song is quite different from the antiquated strictly classical standpoint. Some classical pedagogues argue against it because they believe that belting cannot be done in a healthy manner, and they believe any TA-dominated production to be belting. This simply is not true. The speaking mix is also TA-dominant, but it is different from belting in its intensity. As Mary Saunders-Barton defines it, “belt is the apex of a spoken crescendo in the mixed speaking voice” she adds that “there is no belting in head voice”.<sup>281</sup> The exhilarating quality is meant to add dramatic emphasis to a peak level of excitement. Therefore if an entire song is “belted,” there can be no dramatic variety and the thrill of the belt is gone.

Mary Klimek uses the Estill definition of belting which is derived from similar mechanisms to those involved in shouting (which is not an inherently damaging process!).<sup>282</sup> Both her view and Mary Saunders-Barton’s view emphasize the importance of “call” in the voice, which is an optimum speech production (high CQ, clear tone quality) and high

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<sup>280</sup> For a full discussion of formant tuning, see *Your Voice, and Inside View*. It should be noted that a high larynx and narrow pharynx are not both required for belting.

<sup>281</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>282</sup> Mary Klimek, interview with author, February 2011.

intensities.<sup>283</sup> Because the speech level mix and this type of call are not typically discussed in classical pedagogy, at least for women (it is often used for tenors), it is difficult for singers and teachers coming from a strictly classical standpoint to understand the physical sensations involved. Belting is a process that not only is aided by, but requires coordination of the TA *and* CT muscles—it is not simply a function of “bringing the chest up”. All belting is a mix—open chest is only really used on pitches below F<sup>4</sup>, and one can not “belt” a song that low in the range (a concept that is often quite difficult to make young, uninformed singers abandon).<sup>284</sup> Since this sensation is foreign to most classical teachers, Scott McCoy advises against classical teachers trying to teach it unless they are passionate about the musical theatre repertoire and have received the type of training to help teach students to produce this voice quality.<sup>285</sup> I have found that, actually, when a student learns to belt properly brilliance is added to the whole voice and that some of the skills actually do carry over, an observation consistent with the work of both Mary Saunders-Barton and Mary Klimek.

The process for finding the belt voice is a very similar process to finding the speech level mix, it starts with optimum speech exercises. One of the most effective exercises I have found for finding this quality comes from the *Bel Canto/Can Belto* exercises:

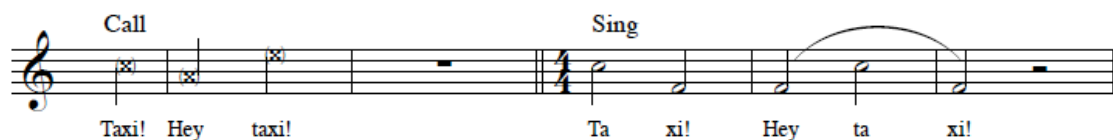


Figure 3.17. “Taxi” exercise for finding the belt, from Saunders-Barton, *Bel Canto Can Belto*.

<sup>283</sup> Mary Klimek, interview with author, February 2011.

<sup>284</sup> The inability to bring the chest voice up the entire range is merely the limit of the register. All registers have a limit, and the chest voice gets strained, weak, and unstable as it is pushed too high.

<sup>285</sup> McCoy, *Inside View*, Chapter 6.

In order to do this correctly, the student must call out as if she were hailing a taxi cab using a very bright, clear tone quality at a high pitch (Audio Appendix 3.10).<sup>286</sup> The most common problem with using this exercise to find the belt voice is that students are not comfortable speaking at high enough pitches, often speaking in their glottal fry. Natalie Weiss joked that when she first attempted this exercise in college, she “didn’t get it and sounded like a chain smoker”.<sup>287</sup> However, after developing a strong and clear speaking mix, this quality is much easier to find. Utilizing a singers natural speech inflections, so long as they are healthy, will help to find comfort in producing this type of sound. As the student progresses, this exercises can be taken up the scale, even to A<sup>5</sup> or higher once healthy production is established. The following variant is often effective for the high belt (Audio Appendix 3.10).<sup>288</sup>

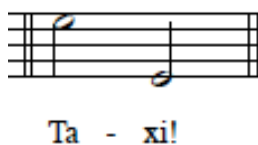


Figure 3.18. “Taxi” exercise variant for the high belt, from Saunders-Barton, *Bel Canto Can Belto*.

The high belt is often an easier process because, as you ascend the scale, the amount of TA involvement in order to attain a speech-like quality greatly decreases. At the top of the belt range, there is much more CT action taking place than TA. The sound quality is quite similar for many singers whether or not they feel like they are using a “more chesty” or “more heady” production. One of the essential components for the high belt is forward ring, so I constantly remind students to make sure they are feeling “buzziness” in their cheekbones, behind the nose, and maybe even in the lips or molars. The only thing that matters is that the sound is clear,

<sup>286</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>287</sup> Natalie Weiss, interview with author, August 2010.

<sup>288</sup> Saunders-Barton, *Bel Canto Can Belto*.

vibrant, and healthy.<sup>289</sup> This tone quality is exemplified by the song “Defying Gravity” from *Wicked*, which is sung by Elphaba, the other female lead (Audio Appendix 3.11). For the last minute this song, Elphaba continually belts between an A<sup>4</sup> and F<sup>5</sup>, which requires excellent vocal stamina, placement, and breath management. When teaching a female how to find this tone quality, sirens (described later) are an excellent tool. Also, in order to not let the sound get too “chesty,” it is effective to have the student slide down to a D<sup>b5</sup> from the F<sup>5</sup>. Learning how to sing in this register efficiently gives a woman the option to convey incredible amounts of excitement and emotionality to an audience.

Another very effective exercise for finding the belt quality develops what Estill certified teachers refer to as the “cry” belt. The following exercise is effective in developing this quality:

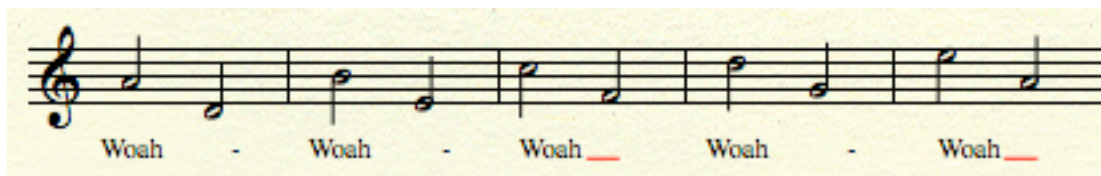


Figure 3.18. Exercise for developing the “cry” belt, from Mary Klimek.

The student should utilize the active bracing posture (see chapter 2) and the exercise was made more effective by making a “calling out” motion with the arms (Audio Appendix 2.2). The key in this exercise is to keep the breath flow constant, but not use too much of it. When the student uses too much abdominal expansion without enough thoracic engagement and activation, the tone gets pushed and strident. A way to mitigate this is to have the student exhale a little bit before singing the phrase to show her that one does not need to “tank up” in order to sing, and that it can actually be detrimental. When done right, however, the resulting vocal quality is

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<sup>289</sup> When discussing the difference between using a “head mix” or “chest mix” in belting, Scott McCoy commented that “it doesn’t matter” because the only way to tell is to use electroglottography which identifies the muscles being used.

exciting and powerful. I have found this exercise particularly helpful in developing belt quality in very light soprano voices coming from a classical background. Such sopranos often speak in a mix with a lot of CT action, so the “taxi” exercise helps them explore a brighter quality of belt. But I have found that this exercise helps the student find a quality that is more reminiscent of the traditional belt or that of Patti Lupone and Barbara Streisand. All women who wish to learn belt should try to achieve both colors of the voice.

During *Next to Normal*, Natalie has many songs where the belt quality is required. During “Superboy and the Invisible Girl”, she moves out of a speaking mix and into a belt as she becomes more and more upset by the dramatic situation she is in. During the following phrase, she belts a D<sup>5</sup> on a closed [i] vowel:

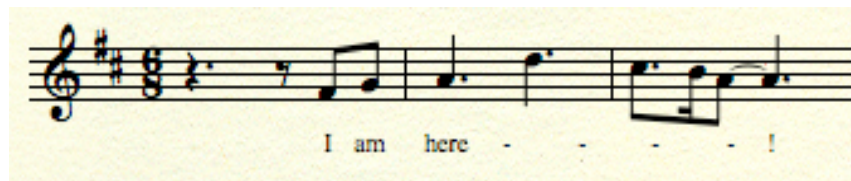


Figure 3.19. Excerpt from “Superboy and the Invisible Girl”, from *Next to Normal*.

The challenge in this phrase comes in making sure to keep the vowel pure and not modify it. This is hardest on closed vowels such as [i] or [u], but in musical theatre—unlike classical music—it is a necessity (Audio Appendix 3.12). In order to maintain the correct vowel sound, an actress needs to make sure that she has activated, but not locked and rigid, support muscles and that the first three notes do not get “too heavy”. By this I mean, that a more forward, lighter speech mix should be used because the D<sup>5</sup> requires a more CT-dominated production than the lower pitches. An exercise that has been very useful in teaching students the physical engagement required for singing this type of phrase is playing “tug-of-war”<sup>290</sup> while she sings

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<sup>290</sup> See Chapter 2 for description of the exercise.



the phrase. This action helps to activate the abdominal and back muscles that can help stabilize the tone.

Another short phrase that Natalie sings during the opening number, “Just Another Day”, uses a more open vowel on C<sup>5</sup> which is actually one of the hardest notes to belt because it requires a fair amount of TA action to sound authentic to the style, but too much will result in a painful, shouted sound that will quickly tire a singer (Audio Appendix 2.10).



Figure 3.20. Excerpt from “Just Another Day”, from *Next to Normal*.

One of the most effective cues I have used to help students find belt placement throughout the range, but especially as one approaches C<sup>5</sup> and higher is having students think of an having both an external and an “inner” smile. This cue often helps them to lift the cheeks, corners of the lips, soft palate, and slightly narrow the pharyngeal space, all of which has the effect of shortening the vocal tract to help with the formant tuning necessary at this part of the voice. The singer does have to make sure that tension in the jaw does not result, nor that tensions in the vocal tract arise.<sup>291</sup> Another key to successfully singing this phrase is to make sure that the singer does not constrict the rectus muscles and activate the internal intercostals, which will cause too much subglottic pressure. This increased pressure will result in a strident tone and, often, excessive laryngeal tension and “holding” of the larynx. However, when this phrase is sung well, it clearly

<sup>291</sup> Developing kinesthetic awareness through Alexander Technique, Feldenkrais, or Body Mapping will aid the student in noticing when tensions arise.

demonstrates the excitement that belting is supposed to evoke, as opposed to the tension and dysfunction that classical pedagogues sometimes put on the quality.

The belt quality has been a part of musical theatre since Ethel Merman made it mainstream, and it has gone through many changes and evolutions.<sup>292</sup> Now, the majority of shows being produced on Broadway require women to sing in this quality. However, most women no longer have the option of being “just a belter” or “just a legit singer”, as more and more shows require women to sing using both qualities. From a technical standpoint, I believe that this challenge actually produces better singers, as it requires them to sing with a full expressive palate. Legit sopranos have to develop their belting skills in a healthy way to express power and authority, and “natural belters” need to develop a round, free head voice that can express vulnerability and sweetness.<sup>293</sup>

### *Putting it Together: Singing in All Four Styles*

One of the most important goals of training as a female musical theatre singer should be to be able to switch between the different styles: head voice, soprano mix, speaking mix, belt. In healthy singers, this is always an option.<sup>294</sup> An exercise that works well to demonstrate this is having a student sing one “siren” in a head voice dominated production and then do the same thing starting in, and maintaining, a speech-like production (Audio Appendix 3.13). This exercise actually demonstrates the similarities between the vocal productions, rather than the

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<sup>292</sup> It should be noted that the examples provided do not demonstrate a very high belt. The quality is often taken up to F<sup>#5</sup> or even A<sup>5</sup>. As the singer ascends, more CT action takes over and the sensation of “inner smile” becomes increasingly important. To explore this range, a singer should first perform a typical “head voice” siren, and then do the same thing but starting in speech quality and maintaining it while ascending (AA).

<sup>293</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>294</sup> Joan Lader, interview with Joan Melton, *Singing in Musical Theatre*, 29.

differences. Both sirens should exhibit a high soft palate, lots of ring, and evenness in tone production. Another way to explore the transition between the different timbres is to perform a *messa di voce* exercise with the apex being a belt quality:<sup>295</sup>

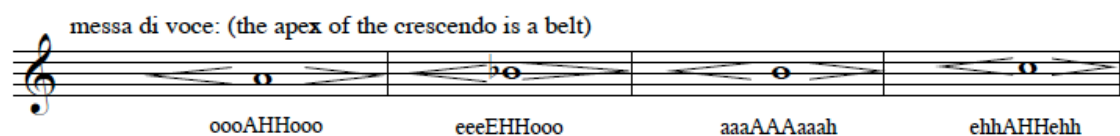


Figure 3.21. *Messa di voce* exercise for transitioning between registers, from Saunders-Barton, *Bel Canto Can Belto*.

The beginning and ending vowels can be sung in either a head voice, soprano mix, or in speaking mix, and each can transition into a belt (Audio Appendix 3.14). The smooth transition between these colors is the ultimate goal of the voice training for a musical theatre singer. Oftentimes, singers will have a problem transitioning from one color to the other. I have found that often this problem arises from inappropriate activation of the abdominal muscles during the exhalation process. Many women will tense the entire core because they believe they will need to “use a lot of air” to make the required register shifts. This locking of the abdominals not only limits the controlled release of air but also causes the internal intercostals to collapse the rib cage back in on itself. Having a student press in on the transverse abdominus and internal oblique<sup>296</sup> to feel activation in the area between the two pelvic bones, but not in the *rectus abdominis*. An image that works well to cue the necessary antagonism between the abdominals and intercostals is a taught rubber band or even having a student hold a Pilates band. The student holds the band while singing, and there always has to be some tension in it. As the singer crescendos, she pulls the two ends of the band apart from each other but not so much that it gets thin and rigid. This

<sup>295</sup> Mary Saunders-Barton, interview with author, January 2011.

<sup>296</sup> Singers can find this area by palpating the top of the pelvic bone and “walking their fingers in” a few inches or by looking at a diagram of the abdominal muscles.

helps the singer to visualize and physicalize the increased transverse and oblique activation that is required for smooth transition between the register colors.

The role of Glinda most explicitly demonstrates the necessity for this ability to change qualities. In the song “Thank Goodness”, Glinda has to belt a B<sup>b4</sup> utilizing a quality that is very similar to the “cry” belt described by Estill:



Figure 3.22. Belting excerpt from “Thank Goodness”, from *Wicked*.

About a minute later, however, she ends the song by singing an A<sup>5</sup> into C<sup>6</sup> in an operatic head voice, with an optional F<sup>6</sup> after that:

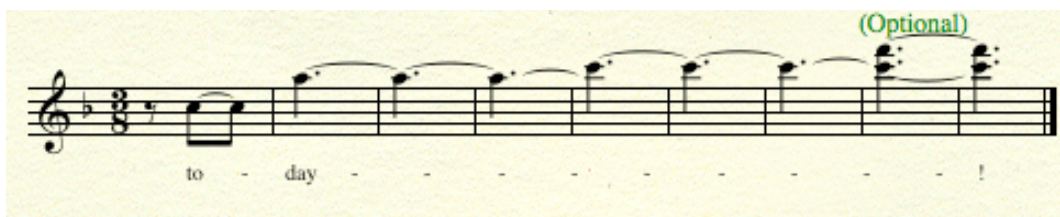


Figure 3.23. Upper head voice excerpt from “Thank Goodness”, from *Wicked*.

When approaching this type of vocal challenge, one needs to practice the piece moment by moment. If a singer tries this song straight through the first time learning it without figuring out the technical demands of the belt and of the operatic head voice, tensions and labored vocal

production will be the result (Audio Appendix 2.1). For some singers the soprano ending will be easiest. Therefore, this singer should focus on the belted B<sup>b</sup> section. Amy Justmann said that her approach would be to make sure that the B<sup>b</sup> does not get “too heavy and pushed” otherwise the laryngeal muscles will be tired and tight.<sup>297</sup> For other singers, the belted portion is much easier. This singer should be sure to find freedom in the soprano line, making sure to breath using the *appoggio* technique and to keep a lower laryngeal placement than that required for the belt. For any student singing this piece, I would be sure to perform exercises alternating voice qualities, always monitoring the amount of air being passed over the vocal folds, the alignment being used, and the amount of effort being expended. Every singer is going to have their own way of approaching this phrase, and it is the job of the student and teacher to find the balance that works best for her.

### *Concluding Thoughts*

The vocal demands placed on musical theatre actresses pose a challenge, they need to be able “to sing an operatic aria one day and a rock song the next”.<sup>298</sup> Within classical voice pedagogy many of the colors required of musical theatre singers are not addressed because they are not part of the idiom. This lack of exploration has resulted in misunderstanding of the vocal processes behind the belt and speaking mix, often resulting in teachers claiming that these are unhealthy uses of the voice that will result in damage. These teachers forget that there are many classical singers who develop vocal pathologies, and that most otolaryngologists have just as many classical clientele as musical theatre patients. However, the principles of classical singing do apply to the legit and operatic qualities that are present in many musical theatre productions.

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<sup>297</sup> Amy Justman, interview with author, January 2011.

<sup>298</sup> Elisabeth Howard, interview with Joan Melton, *Singing in Musical Theatre*, 5.

Vocal pedagogy simply needs to be expanded to encompass all of the healthy sounds that are possible in the vocal instrument. Teachers need to be vigilant in making sure that all types of vocal production are thoroughly explored in a healthy manner in order to help their students sing at the highest level possible. This is achieved through using many of the tenants that are stereotypically part of the classical technique and then investigating other means to explore functions of the voice that have not been as well studied. The goal is to create a fully integrated voice where alignment, breath, registration, resonance, dramatic intention, and musical artistry all build upon and support one another.

## Conclusion

Musical theatre singing for women encompasses an expansive soundscape. Its beginnings were in the light opera and operettas of Gilbert and Sullivan, and the operatic qualities used in these shows by women have continued to be a presence on Broadway through shows like *Candide*, *West Side Story*, *Phantom of the Opera*, and *Wicked*. During the “Golden Age” of musical theatre (beginning approximately in 1927 and ending in the mid-1960s), the legitimate style of singing was introduced. This style was similar to the singing found on the operatic stage, but the tessitura for sopranos was lower and singers were expected to have a more conversational quality in their singing. Despite some differences in range, the parallels between legit and classical singing are quite easy to trace. In 1930, a new vocal style was introduced to Broadway women by Ethel Merman—the belt. Belting is a powerful voice quality that is an extension from speech and that is entirely foreign to the classical idiom. Its roots lie in the non-classical traditions of coon-shouting and blues singing. The belt style not only remained popular in every successive era of the Broadway musical, but many variants came into being such as the character belt, traditional belt, and contemporary belt. *Hair*, the first rock musical, debuted in 1967 and these singers utilized a pop/rock influenced singing style that had not been seen on the Broadway stage. While all of these styles of belting were being explored by female performers, composers such as Leonard Bernstein and Stephen Sondheim were writing shows that featured classical inspired, legit and operatic singing while experimenting with new forms of harmony and song form. During the 1970s and 1980s, Patti Lupone and Barbara Streisand refined the belt again, singing in a style that was similar to the belt of Ethel Merman; however, by adding in a mix quality and less nasality, they were able to take their belting higher up the staff than their predecessors could. During the 1990s and early 2000s, the speech-level mix became a common

element in many shows. In today's musical theatre climate all of the above mentioned voice qualities, in addition to those influenced by R&B, gospel, and country, are prominently featured on Broadway. In order to address the needs of female singers going into this diverse field, a pedagogy that explores a wide range of healthy vocal functioning is required.

Many of the vocal colors utilized by musical theatre actresses are explored through musical theatre pedagogy, such as the head voice and, to some degree, the soprano mix. However, there has also been a longstanding bias in academic investigation of voice science against any non-classical idioms, such as musical theatre. Therefore, colors such as the speech-level mix and belting are largely unexplored by most classical pedagogues. This has left musical theatre singers at a distinct disadvantage for years. Women who have been only taught in classical technique find themselves without the tools to find a healthy belt. Many of these singers will try to imitate what they hear belters do on cast recordings, but without proper instruction this can be disastrous to vocal hygiene. This type of experimentation can be especially problematic if a singer has been taught that belting is merely "pushing up the chest voice". At the other end of the spectrum are singers who are taught by teachers who "reject" the teachings of classical pedagogy. Singers who undergo such training typically have little to no access to their head voice, have strident voices, and have not established a consistent approach to breathing and alignment.

Women who train to become musical theatre singers will best arrive at a varied, sustainable technique by learning the aspects of healthy vocal function that were first laid down by classical pedagogy as well as techniques that meet the registration, breathing, and alignment demands that are not addressed within classical pedagogy. When finding their alignment, women should learn the "noble" posture as described by Richard Miller, as this facilitated



balanced-breathing. However, if this causes tension or if this is unacceptable based on staging and movement demands, techniques such as Alexander, Body Mapping, and Feldenkrais will foster the sense of kinesthetic awareness that is needed to minimize effort and tensions. As women explore different breath support and management systems, they should indeed focus on balanced-breathing since it offers optimal support and control for most vocal functions. There are other vocal functions that are best achieved through more thoracic- or more abdominal-dominated breathing, however, such as belting and finding low notes, respectively. Musical theatre singers must have a flexible alignment and be able to shift their breathing technique in order to fit the vocal, dramatic, or movement task at hand in any given scene or song.

The thorough exploration of breathing and alignment is an essential component to vocal technique that allows singers to utilize the varied registration and color choices that are present in musical theatre. For some singers, the head voice and soprano mix will be the hardest parts of the voice to access and refine. Most all of the techniques required to discover these areas of the voice are based in classical pedagogy. Even though some women believe themselves to be “only” belters, a clear, round, even head voice lends the voice sweetness, vulnerability, and—depending how dark or light the voice is—youth. Other singers who have developed a strong head voice may have trouble accessing their speaking mix and belt registers. These qualities are most easily discovered through the use of optimal, healthy speech. The added chest-voice action in these registers lends the voice a sense of power and authority.<sup>299</sup> When women are able to master both sides of the vocal spectrum, TA- and CT-dominated production, the voice has a wide range of expressivity.<sup>300</sup> I have found in the studio that mastering one quality often helps the

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<sup>299</sup> Saunders-Barton, *Bel Canto Can Belto*.

<sup>300</sup> Mary Klimek, interview with author, February 2011.

evenness, ring, and emotional valence found in the other one. These developments give the actress a wider range of dramatic possibilities.

I hope that as more academic investigation is oriented toward musical theatre vocal pedagogy, the labels imposed on various aspects of technique will begin to fade. For example, learning balanced-breathing or head voice is typically considered to be derived from classical technique, and these are sometimes seen as “borrowed” by musical theatre. Conversely, belting and speech-level production, for many classical pedagogues, are considered inappropriate and damaging uses of the voice. None of these assumptions are inherently true. Yes, classical singing was heavily based in CT-dominated production for centuries before musical theatre began. However, head voice has always been a vocal function that is highly prevalent in musical theatre for women. Belting and speaking mix can be done in a damaging manner, but when taught properly these colors actually help classical singers find squillo or twang in the lower register. The ways by which these seemingly different pedagogies inform one another demonstrate the necessity for no longer imposing labels or value judgments on one kind of vocal production or another. The vocal pedagogy for musical theatre singing—and I would argue classical singing as well—needs to address all healthy functions of the voice in order to best prepare performers. A wide-ranging and varied pedagogy for musical theatre singing will help to ensure that what women learn in the voice studio is also directly applicable to what they are called to do in performance. Registration, breathing, and alignment demands should all be taught in such that they are applicable to the aesthetic demands of audiences and directors and so that one’s technique is always complementary with dramatic action and intent. When this holistic approach to healthy vocal function is applied, women in musical theatre will be able to

successfully feel powerful singing a piece as well act, dance, and sing in such a way that they can have long-lasting and varied careers in musical theatre.

## Audio Appendix

\*Contact author for audio examples\*

<u>Track Number</u>	<u>Example Number</u>	<u>Title or Description</u>
1	1.1	“Poor Wand’ring One” <i>Pirates of Penzance</i> Sung by: Cynthia Glover, 1963
2	1.2	“I Could Have Danced All Night” <i>My Fair Lady</i> Sung by: Julie Andrews, 1956
3	1.3	“Glitter and Be Gay” <i>Candide</i> Sung by: Christiane Noll, 2008
4	1.4	“I Got Rhythm” <i>Girl Crazy</i> Sung by: Ethel Merman, YEAR
5	1.5	“Adelaide’s Lament” <i>Guys and Dolls</i> Sung by: ____
6	1.6	“Easy to be Hard” <i>Hair</i> (OBC) Sung by: Lynne Kellogg, 1968
7	1.7	“Easy to be Hard” <i>Hair</i> (NBC) Sung by: Caissie Levy, 2009
8	1.8	“Don’t Cry for me Argentina” <i>Evita</i> Sung by: Patti Lupone, 1979
9	1.9	“Kiss Me” <i>Sweeney Todd</i> Sung by: Lauren Molina, 2006
10	1.10	“La Vie Boheme” <i>Rent</i> Sung by: Original Broadway Cast, 1996
11	2.1	“Thank Goodness” <i>Wicked</i> Sung by: Kristin Chenoweth, 2003
12	2.2	Estill “woah” exercise for cry belt Sung by: Cynthia Beckwith, 2011
13	2.3	“No One Mourns the Wicked” <i>Wicked</i> Sung by: Kristin Chenoweth, 2003
14	2.4	“Say it Somehow” <i>The Light in the Piazza</i>

		Sung by: Kelli O’Hara, 2005
15	2.5	Audible gasp breaths Sung by: Cynthia Beckwith, 2011
16	2.6	“Popular” <i>Wicked</i> Sung by: Kristin Chenoweth, 2003
17	2.7	Strictly abdominal breathing for high A Sung by: Cynthia Beckwith, 2011
18	2.8	Strictly abdominal breathing for belting resulting in strained tone production Sung by: Cynthia Beckwith, 2011
19	2.9	“The Light in the Piazza” <i>The Light in the Piazza</i> Sung by: Kelli O’Hara, 2005
20	2.10	“ Just Another Day” <i>Next to Normal</i> Sung by: Jennifer Damiano, 2009
21	3.1	Airy head voice production down the staff Sung by: Cynthia Beckwith, 2011
22	3.2	Julia Child Impersonation Sung by: Cynthia Beckwith, 2011
23	3.3	Whimper into warm up for thyroid tilt Sung by: Cynthia Beckwith, 2011
24	3.4	Arpeggiated tenth exercise Sung by: Cynthia Beckwith, 2011
25	3.5	Head voice and then soprano mix production Sung by: Cynthia Beckwith, 2011
26	3.6	“How are you today?” Sung by: Cynthia Beckwith, 2011
27	3.7	Glottal fry Sung by: Cynthia Beckwith, 2011
28	3.8	Speaking mix exercises Sung by: Cynthia Beckwith, 2011

29	3.9	Airy head voice production low in the range Sung by: Cynthia Beckwith, 2011
30	3.10	“Taxi” exercise for belt Sung by: Cynthia Beckwith, 2011
31	3.11	“Defying Gravity” <i>Wicked</i> Sung by: Idina Menzel, 2003
32	3.12	“Superboy and the Invisible Girl” <i>Next to Normal</i> Sung by: Jennifer Damiano, 2009
33	3.13	Classical versus speaking/belted siren Sung by: Cynthia Beckwith, 2011
34	3.14	Head voice to belt <i>messa di voce</i> Sung by: Cynthia Beckwith, 2011

\*Contact author for audio examples\*

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