Recommendations for Vocal Pedagogy Curriculum Based on a Survey of Singers’ Knowledge and Research in Vocal Hygiene

Diana Lindsey Vetter

University of Kentucky, dvetter13@gmail.com

Digital Object Identifier: http://dx.doi.org/10.13023/ETD.2016.220

Click here to let us know how access to this document benefits you.

Recommended Citation

Vetter, Diana Lindsey, "Recommendations for Vocal Pedagogy Curriculum Based on a Survey of Singers' Knowledge and Research in Vocal Hygiene" (2016). Theses and Dissertations--Music. 61.

https://uknowledge.uky.edu/music_etds/61

This Doctoral Dissertation is brought to you for free and open access by the Music at UKnowledge. It has been accepted for inclusion in Theses and Dissertations--Music by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.
STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student’s advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student’s thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

Diana Lindsey Vetter, Student
Dr. Angelique Clay, Major Professor
Dr. David Sogin, Director of Graduate Studies
RECOMMENDATIONS FOR VOCAL PEDAGOGY CURRICULUM BASED ON A SURVEY OF SINGERS’ KNOWLEDGE AND RESEARCH IN VOCAL HYGIENE

D.M.A Project

A D.M.A. Project submitted in partial fulfillment of the requirements for the degree of Doctor of Musical Arts in the College of Fine Arts at the University of Kentucky

By Diana Lindsey Vetter

Lexington, Kentucky

2016

Director: Dr. Angelique Clay, Professor of Voice

Lexington, Kentucky

Copyright © Diana Lindsey Vetter 2016
ABSTRACT OF DISSERTATION

RECOMMENDATIONS FOR VOCAL PEDAGOGY CURRICULUM BASED ON A SURVEY OF SINGERS’ KNOWLEDGE AND RESEARCH IN VOCAL HYGIENE

Professional voice users such as singers and teachers are at high risk for vocal injury. A literature review was conducted to understand the prevalence of voice problems and the effectiveness of vocal hygiene education. The findings of the review suggested that in order to reduce the impact of voice disorders, it is imperative that the education of singers and teachers include how the voice functions and how to best take care of it.

The purpose of this study was to discover what students on a collegiate level know about vocal anatomy, physiology, and vocal hygiene issues. It was hypothesized that graduate students who had taken a pedagogy course, were more knowledgeable about vocal anatomy, physiology, and vocal health than undergraduate or graduate students who had not had such a course. A survey was administered to voice students at a large university music program to ascertain the level of student knowledge. An analysis of the survey results provides educators with insight into specific areas of student deficiency and current collegiate pedagogical needs.

The findings from the study survey were applied to recommendations for undergraduate and graduate vocal pedagogy curriculum, with an emphasis on anatomy, physiology, and preventative care of the voice. Course descriptions, objectives, and assessment methods were included for each vocal pedagogy course. The study recommended that all voice students receive information that allows them to make educated decisions regarding voice care and prepares them to be leaders in teaching singing based on voice science.
In addition to anatomy and physiology of the voice, vocal hygiene is an important topic to be included in pedagogy curriculum. Issues and resent research in vocal hygiene were discussed including: speaking habits, hydration, reflux, medical management, etc. and how these contribute to or detract from efficient voice use.

KEYWORDS: Vocal Pedagogy, Vocal Hygiene, Professional Voice Users, Singer’s Health, Vocal Music Education
RECOMMENDATIONS FOR VOCAL PEDAGOGY CURRICULUM BASED ON A
SURVEY OF SINGERS' KNOWLEDGE AND RESEARCH IN VOCAL HYGIENE

By

Diana Lindsey Vetter

Dr. Angelique Clay
Director of Dissertation

Dr. David Sogin
Director of Graduate Studies

May 11, 2016
Date
ACKNOWLEDGMENTS

I would like to express my deep appreciation and gratitude to my advisor, Dr. Angelique Clay, for the patient guidance and mentorship she provided to me during my years at the University of Kentucky. I also wish to thank my committee members, Dr. Noemi Lugo, Dr. Joseph Stemple, and Dr. Karen Bottge, for their contributions to my intellectual growth and insightful comments and constructive criticism throughout this project.

I would like to sincerely thank my immediate family for all their continued support during my educational career, especially my parents Michael and Deborah Vetter. I am also grateful for the aid and encouragement of my friends and extended family, a special thanks to Robert Burkhardt, Ryan Moore, and Zach Rosen.
PREFACE

This Doctorate of Musical Arts Project is comprised of two parts, Part I and Part II. Part I explores what college students know about vocal anatomy, physiology, and vocal health, what they should know, and how any deficiencies can be filled. A survey was administered to students to determine their knowledge. Through an analysis of the survey results and a review of literature on current vocal hygiene research, educators receive insight into specific student deficiencies and current higher education pedagogical needs. The study concluded with suggestions for vocal pedagogy curriculum for institutions that offer degrees in vocal performance and vocal music education.

Part II of the Doctorate of Musical Arts Project includes program notes from three recitals presented. In the first voice recital, songs were chosen in a variety of languages and time periods. The second recital was a chamber recital with guitar, harp, and piano. The final lecture recital highlighted six musical settings of the poem “En Sourdine” by various composers, which were presented and analyzed.

Additionally, the appendix includes a discussion of recent research in vocal health for singers. Issues include: speaking habits, hydration, reflux, medical management, etc. and how these contribute to or detract from efficient voice use.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgments</td>
<td>iii</td>
</tr>
<tr>
<td>Preface</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td><strong>Part I: Dissertation</strong></td>
<td></td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Chapter 2: Literature Review</td>
<td>7</td>
</tr>
<tr>
<td>Chapter 3: Methods and Procedures</td>
<td>16</td>
</tr>
<tr>
<td>Chapter 4: Results</td>
<td>23</td>
</tr>
<tr>
<td>Chapter 5: Discussion</td>
<td>33</td>
</tr>
<tr>
<td><strong>Part II: Recital Program Notes</strong></td>
<td></td>
</tr>
<tr>
<td>Solo Recital</td>
<td>48</td>
</tr>
<tr>
<td>Chamber Recital</td>
<td>63</td>
</tr>
<tr>
<td>Lecture Recital</td>
<td>77</td>
</tr>
<tr>
<td><strong>Appendix: Issues of Vocal Hygiene</strong></td>
<td>94</td>
</tr>
<tr>
<td>References</td>
<td>126</td>
</tr>
<tr>
<td>Vita</td>
<td>141</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 3.1  Section A: Demographic Information  19
Table 3.2  Section B: Anatomy and Physiology  19
Table 3.3  Section C: Voice Care and Pathologies  21
Table 4.1  Distribution of the Level of Education  23
Table 4.2  Means and Standard Deviations of Vocal Knowledge Test Scores by Level of Education  24
Table 4.3  Means and Standard Deviations of Vocal Knowledge Item Scores by Level of Education  25
Table 4.4  Means and Standard Deviations of Vocal Knowledge Test Scores Between Undergraduate and Graduate Students  27
Table 4.5  Means and Standard Deviations of Vocal Knowledge Item Scores of Graduate and Undergraduate Students  28
Table 4.6  Means and Standard Deviations of Vocal Knowledge Test Scores by Vocal Pedagogy Course  30
Table 4.7  Means and Standard Deviations of Vocal Knowledge Item Scores by Vocal Pedagogy Course  30
Table A.1  Common Herbal Supplement Side Effects  123
Chapter 1: Introduction

University music programs in the United States offer specialized degrees in vocal performance that require courses in music theory, music history, diction, conducting, and participation in various choirs. The music theory and history curriculum utilize standardized information, whereas voice area courses of instruction are generally less standardized, resulting in inconsistencies in teaching voice. The National Association of Schools of Music (NASM) establishes standards for undergraduate and graduate degree programs and offers accreditation to the schools that meet those requirements. However, according to their handbook, NASM does not require a pedagogy course for undergraduate vocal performance degrees; these courses are often deferred until graduate school and do not have specific competency requirements. The lack of standardization in the requirement and content among pedagogy courses may be leading to deficiencies in students’ knowledge in vocal anatomy and vocal hygiene.

The purpose of this study was to discover what students on a collegiate level know about vocal anatomy, physiology, and vocal hygiene issues. It was hypothesized that graduate students, who had taken a pedagogy course, would be able to recall more knowledge about vocal anatomy, physiology, and vocal health than undergraduate or graduate students who did not have such a course. A survey was administered to voice students at a large university music program in order to ascertain the level of student knowledge. The information from this survey was
applied to recommendations for vocal pedagogy courses for undergraduate and graduate voice students.

Many institutions have structured graduate vocal pedagogy courses that cover a wide variety of topics within a short amount of time, leaving a significant amount of information to the discretion of the voice instructor. In addition, the variance of collegiate vocal pedagogy curriculum among institutions may create inconsistencies and possibly gaps in student’s knowledge. Therefore, undergraduate and graduate students should be exposed to nationally standardized courses in vocal anatomy, physiology, and vocal health. Although there has been a recent increase of interest among voice instructors to teach vocal physiology and anatomy, chronicled by a growing number of recently published academic articles and an increase in university vocal pedagogy programs, at this time there is no empirical data on the knowledge of such subjects among collegiate vocal students.

Voice lessons are an important element of a singer’s education. Depending on the college or university program, these lessons are often the main resource for receiving information about vocal physiology and hygiene, especially for undergraduate students who are not offered a vocal pedagogy course. However, there is often a limited amount of time during voice lessons for the discussion of vocal anatomy and health issues and voice instructors may have differing perspectives, which may lead to inconsistencies in the amount of information taught. In traditional university courses (e.g., math, science, etc.) examinations determine a student’s knowledge and understanding of the concepts taught. In a voice lesson, however, the examination is most often either a voice jury or other
vocal performance in which the student presents two or more songs for evaluation by the voice faculty. While a student's progress as a performer can be quantified, the faculty has no insight into the student's knowledge of vocal physiology, pedagogy, or other voice related issues.

Although the anatomy and physiology of the voice has become an important topic in the field of vocal music, it is unclear how much information is reaching students. Diverse opinions exist among voice educators, ranging from those who ignore voice science to those who consider it to be quintessential. Despite teaching effective singing technique, voice teachers do their students a disservice if they do not also educate them on how the voice functions and how to care for it. Knowing optimal techniques for health and longevity of the voice are equally important topics as well.

Singers, even at the student level, are much like athletes: both are at a greater risk than the general population for muscle and joint injuries due to the high demands of physical performance. These demands put singers at risk of developing serious laryngeal pathologies. Professional voice users, such as singers, teachers, clergy, radio and television broadcasters, etc. have a tendency to expose their voices to elevated risk factors which includes voice overuse, speaking or singing in unfavorable environmental conditions, speaking or singing with excessive force, and rushing their recovery time after illness (Broaddus-Lawrence, Treole, McCabe, Allen, & Toppin, 2000). The consequence of these behaviors is the increased probability of developing vocal fatigue, which may cause irregularities and changes in the quality of voice including restricted frequency and intensity ranges (Sapir, 1993).
Multiple studies have shown that while knowledge about the anatomy and physiology of the voice may not lead to improved vocal skill level, such knowledge does help prevent vocal injuries (Stemple, Glaze, & Klaben, 2010). Small and seemingly inconsequential vocal issues may hinder a singer’s full performance potential, but knowing how certain vocal behaviors affect the voice can encourage healthier choices and prevent unnecessary strain. Recent studies about dysphonia in adult singers found that phonotraumatic injuries, such as nodules, are responsible for the majority of dysphonia in professional singers, to a much greater extent than to non-singers (Guss, Sadoughi, Benson, & Sulica, 2014). In a survey administered to three groups of professional singers, (opera, musical theater, and contemporary) 69% of the singers reported experiencing vocal disability within the last twelve months (Phyland, Oates, & Greenwood, 1999). Such damage to a singer or other professional voice user is devastating and can result in the loss of a job or even the end of a career.

Vocal complications, unfortunately, are not exclusive to adult professional singers (Merrill et al., 2013). Student singers also experience voice disorders at a greater rate than their peers. A 2002 survey found that among choral singers ages 3-25 years old, with a mean age of 15 years old, more than half responded to having experienced vocal difficulty, particularly within the older adolescents (Tepe et al., 2002). These young adults, as well as college freshmen, are particularly vulnerable to vocal injury as they adjust to ongoing physical and psychological changes (Spiegel, Sataloff, & Emerich, 1997).
Another survey conducted by Sapir et al. (1993) found that vocal attrition or dysfunction was especially prevalent among female university voice students, whose symptoms included hoarseness, vocal fatigue, reduced pitch range, and sensations such as tightness, pressure, discomfort, dryness, or pain in the throat. Sapir concluded that “certain vocally abusive behaviors, including talking excessively, rapidly, loudly, and/or in a low pitch were significant if not the primary causes of voice problems among singers” (Sapir, 1993, p. 69). Vocal attrition was found to have a significant impact on performance and career goals as well as on the singer’s psychological well-being, with some students exhibiting signs of anxiety. Twenty percent of the surveyed students stated that they had quit performing, foregone an audition, or failed to participate in shows or concerts due to chronic voice issues. These researchers concluded that there is a current need for intensive training in vocal hygiene as an essential part of the voice student’s formal education.

Patients with voice disorders should seek treatment from laryngologists, speech-language pathologists, and voice teachers who, with their combined knowledge provide the most effective care for voice disorders. However, studies have shown that singers are less likely to seek professional help for a voice disorder until it develops into a severe pathology (Cleveland, 1995). Many singers are reluctant to seek medical help in fear of the possibility of a serious diagnosis or they have misconceptions about their options for treatment. When singers understand how the voice functions and how to best take care of it, behavioral changes may be implemented to prevent voice disorders and to improve technique and skill (Andrews, 1996). Furthermore, many students will eventually begin careers as
music teachers, choir directors, or private voice instructors where the importance of educating young singers on vocal health is paramount to their future.

The remainder of this document explores these issues. Chapter two presents a review of the literature on the prevalence of voice disorders among singers and teachers, the need for vocal hygiene education, and the effectiveness of preventative education. In chapter three, the methodology for collecting data from the survey of undergraduate and graduate vocal students is presented. Chapter four analyzes the survey results, giving educators insight into specific areas of student deficiency and current collegiate pedagogical needs. In chapter five, the culmination of the survey results and research findings in vocal hygiene is then utilized in making suggestions for vocal pedagogy curriculum that emphasizes anatomy, physiology, and preventative care of the voice.
Chapter 2: Literature Review

The literature regarding systematic voice education is limited and currently there is no standardized method for university voice training. As such, some studies have been conducted to understand the prevalence of voice problems among singers and teachers and the effectiveness of vocal hygiene education.

A survey conducted by Braum-Janzen and Zeine (2009) investigated the interest and knowledge levels of professional and amateur singers in anatomy and physiology of the vocal mechanism, vocal hygiene, and common functional voice pathologies. Professional singers were found to have a slightly higher interest level in learning more about those subjects, and out-performed amateur singers on knowledge-based questions of anatomy and physiology of the voice, vocal hygiene, and common voice pathologies. Both groups, however, demonstrated gaps in knowledge and misconceptions about the anatomy and physiology of the vocal mechanism, especially those involving the intrinsic laryngeal muscles. In addition, most subjects scored poorly in the area of voice pathologies and the role of speech and language pathologists (Braun-Janzen & Zeine, 2009). If professional singers lack general knowledge about the voice, students and younger singers are likely to mirror this same lack of knowledge. Evidence suggests that there is a gap in the medical and scientific literature on the education of young singers.

A recent study by Kwak, Stasney, Hathway, Minard, and Ongkasuwan (2013) surveyed young singers’ about their knowledge of vocal anatomy and physiology, as well as their anxieties about voice pathologies and otolaryngologists or speech
pathologists. The small pool of subjects was taken from conservatory students as well as those in pre-professional training and survey results showed a general lack of knowledge about vocal health, which further demonstrated the need for additional study (Kwak, Stasney, Hathway, Minard, & Ongkasuwan, 2013).

Another study by Broaddus-Lawrence et al. (2000) sought to determine the effects of vocal hygiene education on the vocal hygiene behaviors and perceptual vocal characteristics of untrained singers. Eleven adults attended four 1-hour sessions on vocal hygiene, including vocal anatomy and physiology, vocally abusive behaviors, voice disorders, and measures to prevent disorders. Pre- and post-instruction surveys were used to record the subject’s vocal abuses and perceptions of their voice. Although the subjects reported a high degree of learning and benefit, the results revealed minimal changes in vocal hygiene behaviors. The researchers admitted however, that confounding variables such as small sample size and low values of abusive behaviors during the pretest made significant changes less likely. They also concluded that vocal hygiene education, especially during the early stages of a singer’s career, was an important tool in preventing voice disorders in professional singers. The study recommended that further research is needed to collect more information (Broaddus-Lawrence et al., 2000).

Other studies have shown that young singers benefit from information about their vocal anatomy and physiology. Once a conceptual framework about these subjects is set for the singer, behavioral changes may be implemented to improve vocal technique and skill (Andrews, 1996). Edwin (1995) suggested that students should be taught topics such as vocal fold hemorrhaging, nodules, polyps, and
chronic laryngitis. Vocal hygiene education should include the possible effects of abuse of the voice (Edwin, 1995). Singers should also be taught better techniques for speaking as many voice professionals abuse their voice more when they speak than when they sing (Sataloff, 1981). While documents exist that show vocal hygiene education is an important part of a young singer's training, it is unclear as to what extent voice students are receiving this information and if they are lacking knowledge about vocal hygiene that could be important in preventing vocal abuse or pathology.

Preventive vocal hygiene education proved effective for kindergarten teachers, another group at risk for voice disorders. In a study conducted by Chan (1994), he found that kindergarten teachers improved their voices after a 1.5-hour workshop of vocal hygiene education. Topics included explanations of the vocal mechanism and laryngeal pathology, vocal abuses and their consequences, examples of healthy voice use, and strategies to maintain classroom order without abusing the voice. The teachers were asked to keep a daily journal assessing their daily vocal abuses and misuses. The study found that vocal hygiene education is effective in altering abusive vocal behaviors, as an analysis of the journals found that the teachers significantly reduced these vocal abuses wherever possible (Chan, 1994). Vocal hygiene education was found to be effective in altering abusive vocal behaviors.

Numerous studies have been conducted concerning the vocal health of primary school teachers and the effectiveness of vocal exercises and vocal hygiene education in preventing various voice issues. It is important to note that many
singers, especially those in college music programs, will go on to become teachers in a variety of settings. Both singers and teachers are considered professional voice users and therefore are more susceptible to vocal injury. A survey of K-12 music teachers found that they used their voices excessively for both singing and speaking during their teaching days without many opportunities for vocal rest. When asked about voice issues, 63.3% of the participants reported current vocal symptoms and 88.6% reported past symptoms (Solberg, 2000). In an article discussing the outcome of various vocal hygiene programs, Timmermans, Vanderwegen, and De Bodt (2005) described a professional voice user as one who is dependent on his/her voice for daily use and described categories of vocal demands that vary among professional voice users. These categories included the amount of hours of voice use in a day, the demands on the voice quality, the occurrence of mental stress, the required volume of sound, and the necessity to travel (Timmermans, Vanderwegen, & De Bodt, 2005). In a 2010 survey of teachers only 27.4% of the teachers had received any kind of vocal care information and only 13.5% had been taught during training, but more than half of the teachers had to cope with a voice disorder at some point during their career. Twenty percent had missed at least one day of work due to a voice related issue (Van Houtte, Claeys, Wuyts, & Van Lierde, 2011). An earlier study reported a similar finding that one-fifth of the teacher population claimed to have missed work as the result of a voice problem, but none of the non-teachers made this report (Smith, Gray, Dove, Kirchner, & Heras, 1997). Although teachers of singing generally have more vocal training than other teachers, they are not exempt from voice related issues. In fact, teachers of singing were found to be
four times more likely to report a voice disorder than similar-age control subjects (Miller & Verdolini, 1995).

Several studies have examined factors that are associated with a greater probability of dysphonia in teachers. Across all age groups, women have higher lifetime prevalence and are more likely to experience chronic vocal dysfunction compared with men. Prevalence of voice disorders also increases in both genders with older age. Other identified risk factors include using a loud voice, singing, Caucasian race, and specific subjects taught. Teachers of performing arts were found to be at a greater risk of developing chronic voice disorders. Vocal dysfunction occurs over the course of a teacher’s career; however, the highest prevalence of vocal complaint occurs during the first five years (Szymanowskl, 2014). Interestingly, a study found that lack of physical activity also impacts the vocal health of teachers. In a survey of over 3,000 teachers in Brazil, nearly half (47.52%) of respondents with dysphonia reported no regular practice of exercise. A significant decrease in vocal dysfunction was found among teachers exercising at least three times a week (Assunção, de Medeiros, Barreto, & Gama, 2009). Although further research is needed to understand this relationship more fully, it is worth consideration for preventative voice care.

A study led by Pasa, Oates, and Dacakis (2007) sought to investigate the effectiveness of vocal hygiene training and vocal function exercises in reducing vocal symptoms and vocal misuse, and increasing knowledge of voice care, maximum phonation time, and maximum phonation frequency range in school teachers. Vocal hygiene training appeared to be most effective in improving knowledge of voice care
principles, and decreasing vocal misuse behaviors and vocal symptoms. The group of teachers who were assigned only vocal function exercises showed moderate improvement in voice quality, while those in the control group showed an increase in vocal symptoms and misuse behaviors. The results of this study, which support the findings of previous studies, concluded that vocal hygiene training is likely to be effective in preventing voice disorders among schoolteachers (Pasa, Oates, & Dacakis, 2007).

Bovo, Galceran, Petruccelli, and Hatzopoulos (2007) developed another preventative vocal education program for teachers. The course included a theoretical seminar and a group therapy session, as well as home-controlled voice exercises and daily reports of vocal abuse. The goal of the program was to create a cost effective program to encourage teachers to develop good vocal hygiene habits and avoid vocal abuse. Twelve months after the training positive changes in voice quality still remained for this highly motivated group of teachers (Bovo, Galceran, Petruccelli, & Hatzopoulos, 2007).

There are many studies that have observed the high rate of voice disorders among teachers, and the need for preventative programs. A study, by Duffy and Hazlett (2004) in Northern Ireland, focused on teachers in a graduate training course that included periods of practice teaching. The researchers aimed to observe possible benefits of preventative training before the subjects had begun their teaching careers. The test subjects were divided into three groups: control (received no training), those that received indirect training, and those that received direct vocal training. Acoustic and self-perceptual measurements were used to
access the multidimensional outcomes before student teaching had begun, with a second assessment once teaching had begun, and a third assessment four months after the initial assessment. None of the subjects reported any voice dysphonia before the study. The goal of the study was to use primary prevention, which promotes good practice before a problem has been identified. After the initial assessment the indirect and direct groups received training that provided “information on the mechanics of normal production, the amount and type of voice use, vocal behaviors thought to be phonotraumatic, hydration issues, and lifestyle and diet factors that can support or interfere with a healthy voice” (Duffy & Hazlett, 2004, p. 63). After the second vocal assessment the direct group received additional training that “encouraged healthy vocal behavior, modifying any inappropriate techniques or compensatory behaviors. More specifically, direct training focused on posture, respiration, release of tension in the vocal apparatus, resonance, and voice projection” (Duffy & Hazlett, 2004, p. 63). No significant differences between groups existed after the initial voice assessment using both acoustic and self-perceptual measurements. After indirect training and teaching had begun, the control group, which had received no training, showed signs of voice difficulties. Meanwhile, the other two groups showed little change. After the third assessment it became clear that the indirect training created sufficient awareness and may have served to maintain the voice quality. The direct training as a prevention measure served to maintain a level of awareness that facilitated an improvement in voice quality as reflected by the acoustic measures, providing strong evidence to support
the implementation of preventive voice care training for teachers (Duffy & Hazlett, 2004).

Gillivan-Murphy, Drinnan, O’Dwyer, Ridha, and Carding (2006) sought to examine the effectiveness of a voice treatment approach for teachers with self-reported voice problems. Multiple measurements were used to evaluate the subjects before and after treatment including a fiber optic endoscopic evaluation, and two self-report voice outcome measures: the Voice-Related Quality of Life (VRQOL) and the Voice Symptom Severity Scale (VoiSS), as well as a specially designed Voice Care Knowledge Visual Analogue Scale (VAS). Twenty teachers received a six-week treatment of vocal function exercises and vocal hygiene education, while another control group received no treatment. The results showed an improvement in self-reported voice symptoms and in voice care knowledge from the treatment group. A troublesome discovery from this study was that six of the subjects had nodules, four of which had less than five years teaching experience. This strongly suggests the need for preventative voice care programs for teachers (Gillivan-Murphy, Drinnan, O’Dwyer, Ridha, & Carding, 2006).

Vocal dysfunction in teachers results in increased absenteeism, diminished quality of life, and general difficulty communicating (Van Houtte et al., 2011). However, teachers are not the only ones being negatively impacted. Rogerson and Dodd (2005) indicated that students taught by teachers with dysphonic voices do not perform as well as those taught by healthy instructors. In three elementary school classes, students answered multiple-choice questions after listening to prerecorded passages read by a healthy voice, a mildly dysphonic voice, and a
severely dysphonic voice. Regardless of gender, IQ, or school attended, students performed best when responding to questions read by the healthy voices. In fact, no difference was found between performance in the mild and severe dysphonic voice passages, indicating that any form of vocal impairment is detrimental to children's speech processing and is therefore likely to have a negative effect on learning (Rogerson & Dodd, 2005).

Research demonstrates the negative impact that voice related issues cause singers, teachers, and even students. It has also shown that vocal hygiene training can be effective in preventing vocal dysphonia. By discovering how much university voice students know about the anatomy and physiology of the larynx and respiratory system as well as vocal hygiene, educators can gain insight into what their students already know and what they still need to learn. If, as suspected, it is found that students’ knowledge is lacking in these areas, reforms can be made to alleviate the problem.
Chapter 3: Methods and Procedures

All recruitment, intervention, and data collection procedures were approved by the Institutional Review Board (IRB) at the University of Kentucky.

Participants

A total of 62 participants were recruited from the University of Kentucky Opera Theater Department. All students enrolled in voice lessons were eligible to participate in the study, both majors and non-major majors. Students who were not enrolled in private voice lessons were excluded from the study. The population consisted of undergraduate and graduate voice students. There was an unequal distribution among education levels with significantly more undergraduate students than master’s or doctoral level students. Students were identified by their attendance at a vocal master class that is required for all voice students. At this institution, there is one class in vocal anatomy and physiology and one class in vocal pedagogy required for master’s and doctoral vocal performance students; there is currently no course in vocal pedagogy for undergraduate students. Since there were more undergraduate students than graduate, there were also more participants who had not taken a vocal pedagogy course. A convenience sample, participants that were willing and available to be studied, was used to select participants. This type of nonprobability sampling does not allow for the findings to be generalized to represent an entire population, but provided useful information for answering questions and hypotheses about students’ knowledge.
**Questionnaire Development and Administration** (See Table 3.1-3.3)

A literature review did not reveal an instrument that would adequately assess the knowledge of student singers. To develop an instrument, questions were constructed, presented to a target group, and revised as needed. Through reading study designs and personal discussions with advisors, the survey was designed as a performance measure to assess an individual's ability to respond correctly to questions regarding vocal anatomy, physiology, and health. Once the reliability and validity of the survey was confirmed a research proposal was created.

After the questionnaire was developed, an expedited, nonmedical proposal was sent to the institutional review board (IRB) to obtain approval for conducting research that used human participants. In this study there was no known risk in participating, the population being studied did not include a sensitive population such as children or those with impairments, and did not include any confidential information. The study proposal consisted of a detailed description of the study and included the data collection process, the guarantees for protecting the participants, a sample consent form, and a copy of the survey to be used. Once approved, the survey was administered.

During a voice master class of undergraduate and graduate students currently enrolled in voice lessons, the principle investigator introduced the study, discussed confidentiality and informed consent, distributed the surveys, and collected the surveys once completed. Students were given 30 minutes to complete the questions. Because the survey did not include identifiable information of the participants, there was no risk of a breach of confidentiality or privacy. An informed
consent letter was also attached to the survey for participants that guaranteed their autonomy. The return of the questionnaire implied the participants’ consent; no signatures were required. Students who did not wish to participate had an opportunity to decline participating in the study by not returning their survey. The survey was not administered a second time.

**Assessment Procedures and Selected Statistical Treatment**

Once the surveys were collected, each was graded by the principal investigator and given a score based on the accuracy of the answers. One point was awarded for each correct answer in sections B and C. There were ten possible points in Section B on anatomy and physiology and nineteen possible points in section C about voice care. The survey scores of students who had taken a pedagogy class were compared to those who had not and by level of education (undergraduate, master’s, doctoral). Means and standard deviations were computed as well as an analysis of responses to individual questions. A Kruskal-Wallis test was used to compare the distribution of responses of multiple small groups. To analyze the responses to specific questions a Pearson $\chi^2$ was utilized. When comparing two groups, such as undergraduate vs. graduate or pedagogy course vs. no pedagogy course, a Mann-Whitney U test was used to assess significant differences.
Survey: Singer’s Knowledge About Voice Physiology and Vocal Health

Table 3.1 Section A: Demographic

<table>
<thead>
<tr>
<th>1. What is your age?</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-19</td>
</tr>
<tr>
<td>20-21</td>
</tr>
<tr>
<td>22-23</td>
</tr>
<tr>
<td>24-25</td>
</tr>
<tr>
<td>26-27</td>
</tr>
<tr>
<td>28 or older</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. What is your gender?</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
</tr>
<tr>
<td>F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. How many semesters have you taken voice lessons at the college level or above?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (Starting first semester)</td>
</tr>
<tr>
<td>1-2</td>
</tr>
<tr>
<td>3-4</td>
</tr>
<tr>
<td>5-6</td>
</tr>
<tr>
<td>7 or more</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. What is your year in school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Masters</td>
</tr>
<tr>
<td>Doctorate</td>
</tr>
<tr>
<td>Other (Please specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Are you a vocal music major?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Undecided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Have you ever been diagnosed with a vocal disorder?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>If yes, what was the diagnosis?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Have you ever received services from a Speech Language Pathologist?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>If yes, what was the reason?</td>
</tr>
</tbody>
</table>

Table 3.2 Section B: Anatomy/Physiology

<table>
<thead>
<tr>
<th>9. The primary muscle of inhalation is/are the _________?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. diaphragm</td>
</tr>
<tr>
<td>b. lungs</td>
</tr>
</tbody>
</table>
c. external intercostals
d. internal intercostals

10. Biological functions of the laryngeal system include all below, except _____.
   a. protect the airway
   b. assist with heavy lifting
   c. speech production
   d. clearing the throat

11. Aerodynamic factors of phonation include _______.
   a. air flow and pressure
   b. length, mass, pressure
   c. length, mass, elasticity

12. The three sub-systems in voice production include
   a. respiration, phonation, supraglottic resonance
   b. articulations, resonance, phonation
   c. phonation, contact, respiration

13. The larynx connects the
   a. trachea, lungs, vocal tract, and oral cavity
   b. trachea, lungs, alveoli
   c. nasal cavity, oral cavity, lungs

14. The laryngeal muscle most responsible for stretching (elongating) the vocal ligament is the:
   a. posterior cricoarytenoid
   b. lateral cricoarytenoid
   c. thyroarytenoid
   d. arytenoid
   e. cricothyroid

15. Phonation takes place when the vocal folds _________.
   a. stretch
   b. vibrate
   c. contract
   d. open

16. A _________ sound comes from diaphragmatic breathing
   a. loud
   b. darkened
   c. supported
   d. strange

17. The top of the diaphragm connects to the _____ and the _________ are located below the diaphragm
   a. lungs, abdominal organs
   b. ribs, kidneys
   c. heart, stomach muscles
   d. lungs, ribs

18. When the ____________ muscles contract they raise the ribs to allow for a deep breath
   a. abdominal
b. external intercostal  
c. diaphragm  
d. stomach

Table 3.3 Section C: Voice Care and Pathologies

19. The following are all abusive habits that should be avoided except:
   a. excessive throat clearing  
b. coughing  
c. yawning  
d. loud sneezing

20. In order to avoid vocal trauma the following should be avoided:
   a. yelling or shouting at sporting events  
b. hard glottal attacks when singing  
c. prolonged loud singing or at either extreme of range  
d. talking in a noisy bar/event  
e. all of the above

21. Good vocal habits include all of the following except:
   a. drink lots of fluids of any kind  
b. talking at a moderate volume with good resonance  
c. avoid singing when sick

22. The following activities, substances, and environments are abusive to the voice, true or false:
   ___ Talking with laryngitis  
   ___ Antihistamines  
   ___ Humming  
   ___ Air conditioning  
   ___ Whispering  
   ___ Talking in a low pitched voice  
   ___ Hot or cold caffeinated beverages  
   ___ Alcoholic beverages  
   ___ Eating late at night  
   ___ Stress  
   ___ Whistling  
   ___ Aerobic exercise  
   ___ Smoking

23. The following are true of vocal nodules (nodes) except:
   a. vocal nodules (nodes) are more common in females  
b. vocal nodules are small fibrous bumps, usually located in the middle of the vocal fold on each side  
c. vocal nodules are acquired gradually  
d. vocal nodules should be treated with vocal rest  
e. hoarseness, difficulty with register transitions, and difficulty with fortissimo singing is associated with early signs of nodules.
<table>
<thead>
<tr>
<th>Question</th>
<th>Choice</th>
</tr>
</thead>
</table>
| 24. Polyps on the vocal chords may develop suddenly, after an isolated incident of abuse. | a. True  
|                                                                          | b. False |
| 25. Treatment for laryngitis should include vocal rest until the symptoms subside. | a. True  
|                                                                          | b. False |
Chapter 4: Results

There were 62 participants in the study, including 35 females (56.5%) and 27 males (43.5%) with ages ranging from 18 to over 28 and a median age of 20.5. The number of semesters of voice lessons at the college level or above ranged from 1 to over 7, with a median number of 3. The levels of education included undergraduate, master’s, and doctoral-level students. Most students were undergraduates. This was the distribution of the level of education:

Table 4.1. Distribution of the Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>Master’s</td>
<td>8</td>
<td>12.9</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>48</td>
<td>77.4</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Level of Education and Vocal Knowledge

Level of education was expected to be associated with knowledge about voice physiology and vocal health, with those having received more education thereby having gained more knowledge. Means and standard deviations were computed for scores on each of the subscales (knowledge about voice physiology and knowledge about vocal health.) See Table 4.2. Using the independent-samples Kruskal-Wallis test, a significant difference in knowledge about voice physiology across levels of education was found, $K(2) = 5.88, p = .05$. In particular, while it appears the undergraduate students ($M = 5.08, SD = .20$) may have answered fewer questions
than did the master’s ($M = 6.13, SD = .50$) and doctoral-level students ($M = 6.17, SD = .58$), this difference was not significant per Scheffe post-hoc analyses, with $p = .16$ and $p = .22$, respectively. Similarly, knowledge about vocal health also varied significantly across levels of education, $K(2) = 8.29, p = .016$, but again post-hoc analyses did not find significant differences between undergraduates ($M = 13.79, SD = 2.45$) and master students ($M = 15.88, SD = 1.36$), $p = .06$, or between undergraduates and doctoral students ($M = 15.50, SD = 1.52$), $p = .23$.

Table 4.2. Means and Standard Deviations of Vocal Knowledge Test Scores by Level of Education ($n = 62$).

<table>
<thead>
<tr>
<th></th>
<th>Knowledge about Voice Physiology</th>
<th>Knowledge about Vocal Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
</tr>
<tr>
<td>Doctoral Students</td>
<td>6.17 (0.58)</td>
<td>15.50 (1.52)</td>
</tr>
<tr>
<td>Masters Students</td>
<td>6.13 (0.50)</td>
<td>15.88 (1.36)</td>
</tr>
<tr>
<td>Undergraduate Students</td>
<td>5.08 (0.20)</td>
<td>13.79 (2.45)</td>
</tr>
</tbody>
</table>

**Specific Questions about Vocal Knowledge by Level of Education**

Further analysis, with a series of Pearson $\chi^2$ analyses, explored participants’ responses to individual items about vocal knowledge as related to level of education. See Table 4.3. Only four of the twenty-nine knowledge questions showed significant difference in the group answering correctly. Most likely, these
significant differences were due to chance, but they may indicate a real difference between groups in specific knowledge.

Table 4.3. Means and Standard Deviations of Vocal Knowledge Item Scores by Level of Education ($n = 62$).

<table>
<thead>
<tr>
<th>KNOWLEDGE ABOUT VOICE PHYSIOLOGY</th>
<th>Doctoral ($n = 6$)</th>
<th>Masters ($n = 8$)</th>
<th>Undergraduate ($n = 48$)</th>
<th>$\chi^2$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Correct Answers</td>
<td>Number of Correct Answers</td>
<td>Number of Correct Answers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 - The primary muscle of inhalation is/are the _________?</td>
<td>4</td>
<td>5</td>
<td>24</td>
<td>0.91 (2)</td>
</tr>
<tr>
<td>10 - Biological functions of the laryngeal system include all below, except ____.</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1.59 (2)</td>
</tr>
<tr>
<td>11 - Aerodynamic factors of phonation include _____________.</td>
<td>4</td>
<td>5</td>
<td>28</td>
<td>0.18 (2)</td>
</tr>
<tr>
<td>12 - The three sub-systems in voice production include:</td>
<td>4</td>
<td>2</td>
<td>16</td>
<td>3.03 (2)</td>
</tr>
<tr>
<td>13 - The larynx connects the:</td>
<td>3</td>
<td>6</td>
<td>36</td>
<td>1.70 (2)</td>
</tr>
<tr>
<td>14 - The laryngeal muscle most responsible for stretching (elongating) the vocal ligament is the:</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>15.29 (2)***</td>
</tr>
<tr>
<td>15 - Phonation takes place when the vocal folds _____________.</td>
<td>6</td>
<td>8</td>
<td>41</td>
<td>2.30 (2)</td>
</tr>
<tr>
<td>16 - A ____________ sound comes from diaphragmatic breathing.</td>
<td>6</td>
<td>8</td>
<td>46</td>
<td>0.60 (2)</td>
</tr>
<tr>
<td>17 - The top of the diaphragm connects to the _______ and the ____________ are located below the diaphragm.</td>
<td>2</td>
<td>5</td>
<td>36</td>
<td>4.56 (2)</td>
</tr>
<tr>
<td>18 - When the _____ muscles contract they raise the ribs to allow for a deep breath.</td>
<td>5</td>
<td>6</td>
<td>16</td>
<td>10.11 (2)*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KNOWLEDGE ABOUT VOCAL HEALTH</th>
<th>Pretest $M (SD)$</th>
<th>Posttest $M (SD)$</th>
<th>$t$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - The following are all abusive habits that should be avoided except:</td>
<td>5</td>
<td>8</td>
<td>43</td>
</tr>
<tr>
<td>20 - In order to avoid vocal trauma the following should be avoided:</td>
<td>6</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td>21 - Good vocal habits include all of the following except:</td>
<td>4</td>
<td>6</td>
<td>33</td>
</tr>
</tbody>
</table>
22 - The following activities, substances, and environments are abusive to the voice, true or false:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Talking with laryngitis</td>
<td>6</td>
<td>8</td>
<td>41</td>
</tr>
<tr>
<td>b. Antihistamines</td>
<td>4</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>c. Humming</td>
<td>6</td>
<td>8</td>
<td>46</td>
</tr>
<tr>
<td>d. Air conditioning</td>
<td>4</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>e. Whispering</td>
<td>5</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>f. Talking in a low pitched voice</td>
<td>3</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>g. Hot or cold caffeinated beverages</td>
<td>4</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>h. Alcoholic beverages</td>
<td>5</td>
<td>7</td>
<td>41</td>
</tr>
<tr>
<td>i. Eating late at night</td>
<td>6</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>j. Stress</td>
<td>6</td>
<td>8</td>
<td>45</td>
</tr>
<tr>
<td>k. Whistling</td>
<td>5</td>
<td>8</td>
<td>43</td>
</tr>
<tr>
<td>l. Aerobic exercise</td>
<td>6</td>
<td>8</td>
<td>48</td>
</tr>
<tr>
<td>m. Smoking</td>
<td>6</td>
<td>8</td>
<td>48</td>
</tr>
</tbody>
</table>

23 - The following are true of vocal nodules (nodes) except:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24 - Polyps on the vocal chords may develop suddenly, after an isolated incident of abuse.

25 - Treatment for laryngitis should include vocal rest until the symptoms subside.

*p ≤ .05, **p ≤ .01, ***p ≤ .001

**Undergraduate and Graduate Education and Vocal Knowledge**

A significant difference between graduate (master’s and doctoral combined) and undergraduate students’ knowledge about voice physiology and health seemed likely. Means and standard deviations were further examined for scores on each of the subscales (knowledge about voice physiology and knowledge about vocal health.) See Table 4.4. Using an independent-samples Mann-Whitney U test, a significant difference in knowledge about voice physiology was found between undergraduate students ($M = 5.08, SD = 1.38$) and graduate students ($M = 6.14, SD =$
1.46), $U = 476.50$, $p = .015$. In addition, knowledge about vocal health differed significantly between undergraduate ($M = 13.79$, $SD = 2.45$) and graduate students ($M = 15.71$, $SD = 1.38$), $U = 503.50$, $p = .004$.

Table 4.4. Means and Standard Deviations of Vocal Knowledge Test Scores Between Undergraduate and Graduate Students ($n = 62$).

<table>
<thead>
<tr>
<th></th>
<th>Knowledge about Voice Physiology</th>
<th>Knowledge about Vocal Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M (SD)</strong></td>
<td><strong>M (SD)</strong></td>
<td></td>
</tr>
<tr>
<td>Graduate Students</td>
<td>6.14 (1.46)</td>
<td>15.71 (1.38)</td>
</tr>
<tr>
<td>Undergraduate Students</td>
<td>5.08 (1.38)</td>
<td>13.79 (2.45)</td>
</tr>
</tbody>
</table>

**Specific Questions about Vocal Knowledge for Undergraduate and Graduate Students**

Further analysis, with a series of Pearson $\chi^2$ analyses, explored participants’ responses to individual items about vocal knowledge for undergraduate and graduate students. See Table 4.5. Only four of the twenty-nine knowledge questions showed significant difference in the group answering correctly. These significant differences may have been due to chance, but they could indicate a real difference between groups in specific knowledge. The results are similar to those found between undergraduate, master’s, and doctoral students.
Table 4.5. Means and Standard Deviations of Vocal Knowledge Item Scores of Graduate and Undergraduate Students \((n = 62)\).

<table>
<thead>
<tr>
<th>KNOWLEDGE ABOUT VOICE PHYSIOLOGY</th>
<th>Graduate ((n = 14))</th>
<th>Undergraduate ((n = 48))</th>
<th>(\chi^2) (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 - The primary muscle of inhalation is/are the __________?</td>
<td>9</td>
<td>24</td>
<td>0.88 (1)</td>
</tr>
<tr>
<td>10 - Biological functions of the laryngeal system include all below, except ______.</td>
<td>1</td>
<td>3</td>
<td>0.01 (1)</td>
</tr>
<tr>
<td>11 - Aerodynamic factors of phonation include _______.</td>
<td>9</td>
<td>28</td>
<td>0.16 (1)</td>
</tr>
<tr>
<td>12 - The three sub-systems in voice production include:</td>
<td>6</td>
<td>16</td>
<td>0.43 (1)</td>
</tr>
<tr>
<td>13 - The larynx connects the:</td>
<td>9</td>
<td>36</td>
<td>0.63 (1)</td>
</tr>
<tr>
<td>14 - The laryngeal muscle most responsible for stretching (elongating) the vocal ligament is the:</td>
<td>6</td>
<td>2</td>
<td>14.44 (1)***</td>
</tr>
<tr>
<td>15 - Phonation takes place when the vocal folds _______.</td>
<td>14</td>
<td>41</td>
<td>2.30 (1)</td>
</tr>
<tr>
<td>16 - A ________ sound comes from diaphragmatic breathing.</td>
<td>14</td>
<td>46</td>
<td>0.60 (1)</td>
</tr>
<tr>
<td>17 - The top of the diaphragm connects to the ___________ and the ____________ are located below the diaphragm.</td>
<td>7</td>
<td>36</td>
<td>3.19 (1)</td>
</tr>
<tr>
<td>18 - When the _____ muscles contract they raise the ribs to allow for a deep breath.</td>
<td>11</td>
<td>16</td>
<td>10.00 (1)**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KNOWLEDGE ABOUT VOCAL HEALTH</th>
<th>Posttest (M (SD))</th>
<th>(\chi^2) (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - The following are all abusive habits that should be avoided except:</td>
<td>13</td>
<td>43</td>
</tr>
<tr>
<td>20 - In order to avoid vocal trauma the following should be avoided:</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>21 - Good vocal habits include all of the following except:</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>22 - The following activities, substances, and environments are abusive to the voice, true or false:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Talking with laryngitis</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>b. Antihistamines</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>c. Humming</td>
<td>14</td>
<td>46</td>
</tr>
<tr>
<td>d. Air conditioning</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>
e. Whispering    13      35      2.47 (1)

f. Talking in a low pitched voice    10      24      2.01 (1)

g. Hot or cold caffeinated beverages    8      28      0.67 (1)

h. Alcoholic beverages    12      41      0.01 (1)

i. Eating late at night    12      25      5.09 (1)*

j. Stress    14      45      0.92 (1)

k. Whistling    13      43      0.13 (1)

l. Aerobic exercise    14      48      0.00 (1)

m. Smoking    14      48      0.00 (1)

23 - The following are true of vocal nodules (nodes) except:

24 - Polyps on the vocal chords may develop suddenly, after an isolated incident of abuse.

25 - Treatment for laryngitis should include vocal rest until the symptoms subside.

*  p \leq .05, **  p \leq .01, ***  p \leq .001

**Vocal Pedagogy and Vocal Knowledge**

Having some training in vocal pedagogy was expected to be associated with knowledge about voice physiology and vocal health, with those having taken such a course having more knowledge. Means and standard deviations were computed for scores on each of the subscales (knowledge about voice physiology and knowledge about vocal health.) See Table 4.6. Using an independent-samples Mann-Whitney U test, no significant difference in knowledge about voice physiology was found between those having taken a vocal pedagogy course (\( M = 5.73, SD = 1.67 \)) and those not having such a course (\( M = 5.19, SD = 1.38 \)), \( U = 424.50 \), standardized \( U = 1.21 \), \( p = .23 \). However, knowledge about vocal health differed significantly between those having taken a vocal pedagogy course (\( M = 15.47, SD = 1.64 \)) and those not having such a course (\( M = 13.83, SD = 2.46 \)), \( U = 498.50 \), standardized \( U = 2.43 \), \( p = .02 \).
Table 4.6. Means and Standard Deviations of Vocal Knowledge Test Scores by Vocal Pedagogy Course ($n = 62$).

<table>
<thead>
<tr>
<th>Knowledge about Voice Physiology</th>
<th>Knowledge about Vocal Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$M$ ($SD$)</strong></td>
<td><strong>$M$ ($SD$)</strong></td>
</tr>
<tr>
<td>Vocal Pedagogy Course</td>
<td>5.73 (1.67)</td>
</tr>
<tr>
<td>No Course</td>
<td>15.47 (1.64)</td>
</tr>
</tbody>
</table>

**Specific Questions about Vocal Knowledge by Vocal Pedagogy Course**

Further analysis, with a series of Pearson $\chi^2$ analyses, explored participants’ responses to individual items about vocal knowledge as related to their vocal pedagogy training. See Table 4.7. Only three of the twenty-nine knowledge questions showed significant difference in the group answering correctly. Most likely, these significant differences were due to chance, but they may indicate a real difference between groups in specific knowledge.

Table 4.7. Means and Standard Deviations of Vocal Knowledge Item Scores by Vocal Pedagogy Course ($n = 62$).

<table>
<thead>
<tr>
<th>KNOWLEDGE ABOUT VOICE PHYSIOLOGY</th>
<th>Vocal Pedagogy Course ($n = 15$)</th>
<th>No Course ($n = 47$)</th>
<th>$\chi^2$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 - The primary muscle of inhalation is/are the ______________?</td>
<td>8</td>
<td>25</td>
<td>0.00 (1)</td>
</tr>
<tr>
<td>10 - Biological functions of the laryngeal system include all below, except _______.</td>
<td>2</td>
<td>2</td>
<td>1.55 (1)</td>
</tr>
<tr>
<td>11 - Aerodynamic factors of phonation include __________.</td>
<td>8</td>
<td>29</td>
<td>0.33 (1)</td>
</tr>
</tbody>
</table>
12 - The three sub-systems in voice production include:

13 - The larynx connects the:

14 - The laryngeal muscle most responsible for stretching (elongating) the vocal ligament is the:

15 - Phonation takes place when the vocal folds ___________.

16 - A ___________ sound comes from diaphragmatic breathing.

17 - The top of the diaphragm connects to the _______ and the _______ are located below the diaphragm.

18 - When the _____ muscles contract they raise the ribs to allow for a deep breath.

19 - The following are all abusive habits that should be avoided except:

20 - In order to avoid vocal trauma the following should be avoided:

21 - Good vocal habits include all of the following except:

22 - The following activities, substances, and environments are abusive to the voice, true or false:

   a. Talking with laryngitis 15 40 2.17 (1)
   b. Antihistamines 9 24 0.37 (1)
   c. Humming 15 45 0.66 (1)
   d. Air conditioning 8 15 2.24 (1)
   e. Whispering 14 34 2.87 (1)
   f. Talking in a low pitched voice 11 23 2.73 (1)
   g. Hot or cold caffeinated beverages 29 9 0.66 (1)
   h. Alcoholic beverages 13 40 0.22 (1)
   i. Eating late at night 13 24 5.99 (1)*
   j. Stress 14 45 0.14 (1)
   k. Whistling 13 43 0.30 (1)
   l. Aerobic exercise 15 47 0.00 (1)
   m. Smoking 15 47 0.00 (1)

23 - The following are true of vocal nodules

KNOWLEDGE ABOUT VOCAL HEALTH

<table>
<thead>
<tr>
<th></th>
<th>Vocal Pedagogy Course (n = 15)</th>
<th>No Course (n = 47)</th>
<th>$\chi^2$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - The following are all abusive habits that should be avoided except:</td>
<td>14</td>
<td>42</td>
<td>0.21 (1)</td>
</tr>
<tr>
<td>20 - In order to avoid vocal trauma the following should be avoided:</td>
<td>15</td>
<td>43</td>
<td>1.37 (1)</td>
</tr>
<tr>
<td>21 - Good vocal habits include all of the following except:</td>
<td>10</td>
<td>33</td>
<td>0.07 (1)</td>
</tr>
<tr>
<td>22 - The following activities, substances, and environments are abusive to the voice, true or false:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Talking with laryngitis</td>
<td>15</td>
<td>40</td>
<td>2.17 (1)</td>
</tr>
<tr>
<td>b. Antihistamines</td>
<td>9</td>
<td>24</td>
<td>0.37 (1)</td>
</tr>
<tr>
<td>c. Humming</td>
<td>15</td>
<td>45</td>
<td>0.66 (1)</td>
</tr>
<tr>
<td>d. Air conditioning</td>
<td>8</td>
<td>15</td>
<td>2.24 (1)</td>
</tr>
<tr>
<td>e. Whispering</td>
<td>14</td>
<td>34</td>
<td>2.87 (1)</td>
</tr>
<tr>
<td>f. Talking in a low pitched voice</td>
<td>11</td>
<td>23</td>
<td>2.73 (1)</td>
</tr>
<tr>
<td>g. Hot or cold caffeinated beverages</td>
<td>29</td>
<td>9</td>
<td>0.66 (1)</td>
</tr>
<tr>
<td>h. Alcoholic beverages</td>
<td>13</td>
<td>40</td>
<td>0.22 (1)</td>
</tr>
<tr>
<td>i. Eating late at night</td>
<td>13</td>
<td>24</td>
<td>5.99 (1)*</td>
</tr>
<tr>
<td>j. Stress</td>
<td>14</td>
<td>45</td>
<td>0.14 (1)</td>
</tr>
<tr>
<td>k. Whistling</td>
<td>13</td>
<td>43</td>
<td>0.30 (1)</td>
</tr>
<tr>
<td>l. Aerobic exercise</td>
<td>15</td>
<td>47</td>
<td>0.00 (1)</td>
</tr>
<tr>
<td>m. Smoking</td>
<td>15</td>
<td>47</td>
<td>0.00 (1)</td>
</tr>
</tbody>
</table>
(nodes) except:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>24 - Polyps on the vocal chords may develop suddenly, after an isolated incident of abuse.</td>
<td>11</td>
<td>29</td>
<td>0.92</td>
</tr>
<tr>
<td>25 - Treatment for laryngitis should include vocal rest until the symptoms subside.</td>
<td>14</td>
<td>43</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*p ≤ .05, **p ≤ .01, ***p ≤ .001
Chapter 5: Discussion

The administered survey consisted of two sections. The first section focused on vocal anatomy and physiology and the second was concerned with vocal hygiene and voice disorders. Answers were compared between level degree level (undergraduate, master’s, and doctorate), undergraduate and graduate (master’s and doctorate combined) and whether or not the student had taken a vocal pedagogy course. The developed hypothesis surmised that students enrolled at the graduate level and those who had previously or were currently taking a pedagogy class were expected to score higher on the assessment than undergraduate students or those who had not taken a vocal pedagogy course.

In the first section of the assessment pertaining to voice anatomy and physiology, the doctoral students produced a higher percentage of correct answers, followed by the master’s and finally by the undergraduate students, however no group of students scored significantly higher than another group, disproving the hypothesis. It is assumed that had the graduate sample size been larger and equal to the number of undergraduate student sample, the results would have favored the graduate students.

When undergraduate scores were compared to the combined graduate scores (master’s and doctorate), a significant difference was found, with graduate students answering more questions correctly. In addition, a greater percentage of graduate students answered specific questions regarding muscles involved in phonation and breathing correctly compared to the undergraduate students. Although statistically the greater percentage of correct answers may be due to
chance, it could also infer a greater knowledge of these subjects than other students. These questions were also the most prevalently incorrect across all groups. It is important to note that the findings only reflect what students remember about certain areas of voice physiology and vocal health and not what they were taught. However, students who had not completed a pedagogy or vocal health course, the low scores indicated a lack of knowledge.

The second section of the survey focused on questions regarding vocal hygiene and voice disorders. Overall, the entire sample of students scored higher on the second section than the first. There was not a significant difference among the three levels of education (undergraduate, master’s, and doctorate). Graduate students, however, demonstrated more knowledge relating to vocal hygiene questions, such as identifying late night eating as a poor hygiene choice due to reflux and symptoms of vocal nodules. There were also multiple questions that scored resoundingly low among all levels of education such as the association of air conditioning and caffeine with dehydrating effects on the voice. As a whole, graduate students (master's and doctorate combined) scored better than undergraduates students on the vocal hygiene section.

Students who had taken a course in vocal pedagogy were expected to score better on the assessment than those who had not. In the first section of the survey on anatomy and physiology, there was no statistically significant difference between what students remembered who had taken a vocal pedagogy course and those who had not enrolled in such a course. Two questions in this section were an exception and found that a greater percentage of students who had taken a pedagogy course
were able to identify the muscles involved in phonation and breathing. Although the answers to these two questions may indicate a greater knowledge among students who had taken a pedagogy course, in the section as a whole, there was not a statistically significant difference between the retention of knowledge by those who had taken a course and those who had not. In the second section of the survey, students who had taken a vocal pedagogy class demonstrated a greater knowledge of vocal hygiene than those who had not taken a course.

The study was limited in that the students surveyed were from one university. Therefore, the findings cannot be generalized to vocal music students in a similar academic program at other institutions. It is recommended that additional studies be conducted to investigate what students know about vocal anatomy, physiology and vocal health and to survey what is currently being taught in vocal pedagogy courses at universities across the country. The results of this study, however, are valuable for educators designing vocal pedagogy curriculum to determine what students were able to recall and what needs to be improved.

A recent study by Franca and Wagner (2015) investigated the effects of cumulative vocal demands on the voices of vocal music students throughout an academic semester. Acoustic and aerodynamic voice parameters, as well as a self-reported survey were analyzed three times during the semester. The study found that the eight participants had a reasonable knowledge and awareness of voice concerns and therefore did not demonstrate a significant difference between tests (Franca & Wagner, 2015). The students with the greatest knowledge showed fewer signs of vocal fatigue or other voice related issues.
The evidence on the benefits of vocal hygiene programs for teachers and singers, suggests that the best solution for educating student singers would be to develop more specific accreditation requirements in vocal pedagogy for schools that offer degrees in vocal performance and music education. Accreditation requirements would ensure that all voice students received information as to anatomy, physiology, and vocal hygiene through courses that would assist them in making educated decisions regarding voice care and maintenance. Such courses would be supplemented by time in studio or master classes to help reinforce the information about various vocal issues.

There is a vast amount of information available to assist educators in creating curriculum. Vocal pedagogy courses should be devoted to speaking habits, anatomy and physiology, reflux, medical management, and how these contribute to or detract from efficient voice use. In addition, vocal pedagogy courses should encourage students to be life-long learners and keep updated on vocal hygiene issues.

**Suggestions for Course Curriculum**

Currently, there are no national standards for vocal pedagogy curriculum. Many schools of music have implemented pedagogy into their required courses for graduate students; some have even begun offering separate degrees or certificates. Most undergraduate students, however, are not offered or required to take courses in vocal pedagogy. The lack of standardization creates inconsistencies between schools and is a disservice to the students. University degrees in vocal music should
not only train singers as performers, but also prepare them for future careers, including studio voice teachers. While the implementation of curriculum may vary greatly among programs, recommended standard learning objectives and content can serve as a guide for developing vocal pedagogy programs. Course recommendations have been made utilizing the information gained through the survey of students’ on their knowledge of vocal anatomy and hygiene as well as the research in vocal hygiene issues. This section includes course descriptions, objectives, and assessment methods for vocal pedagogy classes for undergraduate and graduate students.

The results of the survey indicated that, overall, undergraduate students do not have a sufficient knowledge of vocal anatomy or vocal hygiene. Therefore, a course is recommended for undergraduate students with an emphasis on vocal hygiene, as well as an introductory overview of vocal anatomy and physiology. Through the examination of these topics, undergraduate students will learn more about how their voice works and have a greater understanding of preventative vocal care and its importance. The course is designed for upper-class students, juniors or seniors, majoring in music performance or music education with an emphasis in choral teaching or voice. Other future professional voice users such as teachers, clergy, lawyers, etc. may also be interested in taking this course as a cross-disciplinary study.

Students in graduate school programs need to receive more in-depth education on issues in vocal pedagogy. The vast amount of information regarding anatomy, physiology, acoustics, hygiene, voice disorders, and teaching voice is more
information than can be effectively covered in one or two courses. Thus the suggested graduate vocal pedagogy program consists of a three-semester sequence of courses on topics related to vocal pedagogy and culminates in a teaching practicum the fourth semester. Because these courses build upon one another, they should be taken sequentially.

The first two graduate level courses provide in-depth explorations of vocal anatomy, physiology, acoustics, hygiene, and voice disorders. Universities and conservatories that have close associations to medical schools or voice centers may want to incorporate lectures given by licensed voice therapists and otolaryngologists into the curriculum of these two courses.

The third and fourth graduate courses provide a foundation for voice instruction by exploring a range of vocal techniques, age appropriate repertoire for the voice studio, identifying vocal issues in singing, and providing a pedagogical plan appropriate to individual student needs. By comparing and contrasting different pedagogic opinions in these courses, students may gain insight into various teaching methods and begin to develop their own pedagogic framework. In the final course, students gain experience through a teaching practicum. The third and fourth semesters may be optional for master's level students who intend to focus on performing rather than teaching. For doctoral students in vocal music the sequential learning of all four courses provides foundational skills that are necessary for successful teaching.
Descriptions for Suggested Vocal Pedagogy Courses

Physiology and Care of the Human Voice: Speaking and Singing

Physiology and Care of the Human Voice is an undergraduate course that explores the anatomy and physiology of the breathing mechanism and the larynx, the importance of warm-ups, the development of vocal exercises, and a thorough examination of vocal hygiene.

Course Objectives
1. Students will gain an understanding of the anatomy and physiology of the voice through a study of respiration and phonation.
2. Students will develop habits that support a healthy voice and gain recognition skills of phonotraumatic behaviors and other issues in vocal hygiene.
3. Students will learn how choose vocal warm-ups and exercises that serve a specific goal in the technical development of the voice.

Assessment Methods
1. Students will demonstrate their progress through examinations identifying the anatomy of respiration and phonation. (Objective 1)
2. In groups, students will create a body chart for breathing and a model of the larynx to use in explaining these processes in a class presentation. (Objective 1)
3. Students will complete a daily journal recording their vocal habits, develop a plan for behavior modification, and record progress in improving vocal health. (Objective 2)
4. Students will complete case study assignments, which demonstrate the use of vocal exercises that serve a specific goal. (Objective 3)
Textbooks

**Vocal Pedagogy I (Required for M.M. and D.M.A. students)**

Vocal Pedagogy I provides a detailed study of vocal anatomy, physiology, and principles of voice production as they pertain to respiration, phonation, resonance, and articulation, and the acoustic properties of sound as they relate to voice production and perception.

**Course Objectives**
1. Students will gain knowledge and understanding of the anatomy and physiology of the voice through a study of respiration, phonation, resonation, and articulation.
2. Students will develop an understanding of the acoustic properties of sound as they relate to voice production and perception.
3. Students will gain an understanding of vocal registers, formants, and vowel modification used in the singing voice.

**Assessment Methods**
1. Students will demonstrate their progress through examinations identifying the anatomy of respiration and phonation as well as principles of resonance, articulation, acoustics, registers, and formants. (Objective 1, 2, and 3)
2. In groups student will creatively present assigned principles of phonation or acoustics. (Objective 1 and 2)
3. Students will turn in a cumulative notebook consisting of class notes, reflections, and reviews of four peer-reviewed articles from scholarly journals on topics discussed in class. (Objective 1, 2, and 3)

Textbooks

**Vocal Pedagogy II (Required for M.M. and D.M.A. students)**

Expanding upon the foundation conveyed in Vocal Pedagogy I, Vocal Pedagogy II examines issues and recent research in vocal hygiene, voice disorders, and rehabilitation. Topics include the role of the voice teacher or choir director in fostering vocal health, determining when to refer students to a voice center or otolaryngologist, and how to serve as a contributing member of a voice care team.

Course Objectives
1. Students will gain an understanding of the various issues in vocal hygiene and learn how to maintain vocal and overall health.
2. Students will develop the ability to recognize phonotraumatic behaviors, in speaking, singing and non-verbal habits, and symptoms of common voice disorders.
3. Students will learn to distinguish the role of the voice teacher in fostering vocal care, referring students to a voice center or otolaryngologist, and serving as a contributing member of a voice care team.

Assessment Methods
1. Students will create a personal plan for maintaining their vocal and overall health incorporating principles learned in class. (Objective 1)
2. Students will research an issue in vocal hygiene, write a paper, and present the information to the class including the importance of the issue and its effect on the voice. (Objective 1)

3. Students will complete case studies involving voice disorders and the role of the voice teacher in potential treatment plans. (Objective 2 and 3)

4. Students will observe two voice therapy sessions at a voice clinic and write a paper about the experience with connections to concepts covered in class. (Objective 2 and 3)

Textbook

**Vocal Repertoire for Teaching (Required for D.M.A. students)**

Vocal Pedagogy for Teaching covers strategies for working with voices of various age levels, abilities, and prior learning experiences, and explores the selection of vocal literature appropriate to the age, voice type, and emotional maturity of the singer. A broad cross section of vocal pedagogy, both historical and modern, will be examined.

Course Objectives
1. Students will acquire pedagogical strategies for working with voices of various age levels, abilities, and prior learning experiences.
2. Students will increase their awareness of pedagogical writings while comparing differing philosophies for the teaching of singing and understand how teaching vocabulary has changed over time.
3. Students will gain knowledge for choosing repertoire for varying levels of students.

Assessment Measures
1. Students will conduct directed research on multiple pedagogical texts, write a paper, and present findings to the class. (Objective 1 and 2)
2. Students will select appropriate repertoire for various voice types and create recital programs based on case studies. (Objective 1 and 3)
3. Students will create lesson plans for teaching students of varying levels. (Objective 1 and 3)

Textbook

Seminar and Practicum in Teaching Studio Voice (D.M.A. students)
The culminating seminar and practicum explores various approaches of teaching vocal technique, offers a practical approach to evaluating the voice, diagnosing technical flaws, and providing targeted solutions for students.

Matters of interest to voice teachers are addressed, such as membership in professional organizations, standards of ethics, opportunities for ongoing professional development, and the business dimensions of setting up and maintaining a successful private voice studio.

Course Objectives
1. Students will develop skills in evaluating voices, diagnosing technical flaws, and creating progressive teaching plans.
2. Students will gain experience in voice lesson instruction, preparation, and developing a syllabus and philosophy of teaching.

3. Students will develop an understanding of various matters of teaching voice such as membership in professional organizations, professional ethics, opportunities for ongoing professional development, and the business dimensions of setting up and maintaining a private studio.

Assessment Measures
1. Students will observe six studio voice lessons taught by varying voice faculty members and write a report on each. (Objective 1 and 2)

2. Students will teach two students of differing voice types half hour lessons in class presentations and submit written lesson plans. The student will teach each student three times prior to the class presentation. Lesson plans will include the singers’ background, vocal exercises and goals, and song repertoire. (Objective 1 and 2)

3. Students will create a syllabus for studio voice and create a business plan for a private voice studio. (Objective 2 and 3)

4. Students will write a final essay outlining their philosophical and practical approach to teaching voice. (Objective 2)

Textbooks


Conclusion

The survey conducted and discussed in earlier chapters demonstrated that there are gaps and inconsistencies in graduate and undergraduate students’ knowledge and recall about vocal anatomy and hygiene. Further evidence supports the effectiveness of vocal hygiene training for increasing awareness about voice issues and preventing vocal damage. The necessary information regarding vocal physiology and health exceeds that which can be covered in voice studio lessons. For these reasons, curriculum suggestions were made that include a course for undergraduate students and three sequential courses for graduate students followed by a teaching practicum. The implementation of such curriculum should be a priority for schools that offer degrees in vocal performance and music education. The recommendation of this study is that all voice students receive information that will allow them to make educated decisions regarding voice care and prepare them to be leaders in teaching singing based on voice science.

In 2004, a meeting of medical professionals and musicians was held in response to a National Association of Schools of Music (NASM) directive to include health information in every music curriculum. The Health Promotion in Schools of Music (HPSM) conference was conceived to initiate the development of core content that would be distributed to all NASM-affiliated institutions (Berenson, 2005). NASM acknowledged the importance of occupational safety and health among musicians for the more than 600 institutions for which it establishes standards. Through the initiative, NASM developed materials and handouts that can be found on its website, providing a minimalist health guide for instrumentalists and singers.
While useful, these materials are not a substitute for health standards to be included in the curriculum. We are doing our students a disservice if we do not adequately prepare them to be successful performers and teachers. The inclusion of standardized vocal pedagogy curriculum is the first step to reaching these goals.
PART II: Recital Program Notes
Presents
Diana L. Vetter
In a DMA Voice Recital

with John Greer, piano

Sunday, September 8, 2013, 6:00 pm
Singletary Recital Hall

PROGRAM

Ah se in, ciel, benigne stelle

W.A. Mozart (1756-1791)

Selections from Clemens Brentano Lieder, Op. 6
Säusle, liebe Myrthe
An die Nacht
Ich wollt ein Sträußlein binden
Amor

-INTERMISSION-

Fêtes galantes pour Madame Vasnier

Claude Debussy (1862-1918)

Pantomime
En sourdine
Mandoline
Claire de lune
Fantoches

Three Pastoral Songs, Op. 22. No. 1

Roger Quilter (1877-1953)

I will go with my father a-ploughing
Cherry Valley
I wish and I wish

YeDam Kim, violin
Chris Erickson, cello

Dream With Me

Leonard Bernstein (1918-1990)

Chris Erickson, cello

This recital is presented in partial fulfillment of the requirements of the Doctorate of Musical Arts in Vocal Performance. Diana Vetter is a student of Dr. Angelique Clay.
Program Notes

Ah se in, ciel, benign stèle (1788)  

W.A. Mozart (1756-1791)

Libretto by Pietro Metastasio (1698-1782)

Wolfgang Amadeus Mozart is considered one of the most influential composers of the classical era, having written over 600 works in almost every genre including symphonies, chamber works, string quartets, piano concertos, operas, and choral works. He effectively blended many styles and traditions of music while maintaining the classical ideals of clarity and balance. His compositions, however, exploited chromatic harmonies in the development of melodies. Some of his best-known vocal works are operas with many of his later songs showing operatic characteristics, such as “Ah se in, ciel, benign stèle.”¹

Mozart wrote the aria “Ah se in, ciel, benign stèle” in 1788 for his sister-in-law, Aloysia Weber, a successful operatic soprano in both Germany and Austria.² The piece is a dazzling and brilliant display of coloratura for voice and orchestra. During the last decades of the eighteenth century there was a strong interest in anything about the "exotic" East, particularly Turkey and China. To satisfy the public interest, Pietro Metastasio wrote the libretto L’eroe cinese (The Chinese Hero). The text for Mozart’s aria comes from Act I, scene 2 of the libretto where a


lovelorn girl, Lisinga, pleads to the friendly stars to invoke protection for a pure affection.  

Although Mozart wrote “Ah se in, ciel, benign stelle” to Metastasio’s libretto, it has almost no “Eastern” musical elements and instead follows classical conventions. The aria’s orchestral introduction has many "false starts" where pauses occur and the vocal part is expected to begin. Also, the vocal tessitura is very high and challenging with long runs requiring breath control.

<table>
<thead>
<tr>
<th><strong>Ah se in ciel benign stelle</strong></th>
<th><strong>From heaven, kindly stars</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ah se in ciel benign stelle,</td>
<td>From heaven, kindly stars</td>
</tr>
<tr>
<td>La pietà non è smarrita,</td>
<td>If mercy has not been lost,</td>
</tr>
<tr>
<td>O toglietemi la vita,</td>
<td>Either take my life</td>
</tr>
<tr>
<td>O lasciatiemi il mio ben.</td>
<td>Or leave me my beloved!</td>
</tr>
<tr>
<td>Voi, che ardete ognor si belle</td>
<td>You who always shine in beauty</td>
</tr>
<tr>
<td>Del mio ben nel dolce aspetto,</td>
<td>In my beloved’s sweet face,</td>
</tr>
<tr>
<td>Proteggete il puro affetto</td>
<td>Protect the pure affection</td>
</tr>
<tr>
<td>Che ispirate a questo sen</td>
<td>You inspire in my breast.</td>
</tr>
</tbody>
</table>

Translation by Bard Suverkrop

**Selections from Six Songs by Clemens Brentano, Op. 68 (1918)**

Richard Strauss (1864-1949)

Text by Clemens Brentano (1778-1842)

Richard Strauss, an Austrian born composer, had a career that spanned nearly eight decades and encompassed almost all musical genres of the period. He is best known for his tone poems written during the latter part of the nineteenth century, as well as for his operas in the early twentieth century. Strauss’ song output increased in the mid-1890s after his marriage to the soprano Pauline de Ahna. By the early 1900s, most of his cycles of songs for voice and piano had been increased.

---

written. Richard and Pauline performed Lieder recitals of his music all over the world. Unlike other composers, Strauss usually did not intend a particular opus to be performed as a unit, but rather as a grouping of similar styles or poetry.  

Strauss wrote Opus 68 in 1918 for voice and piano with texts by the poet Clemens Brentano (1778-1842). Brentano, along with his brother-in-law, Ludwig Achim von Arnim, compiled and wrote a collection of folk poetry, Des Knaben Wunderhorn that became widely popular in German-speaking countries. Composers such as Mahler and Strauss drew upon the idealized folklore and romanticism of the poems for the settings of their songs. Brentano’s texts are careful in their use of pastoral imagery. The poems also have a balanced structure as an extension of his experience with and interest in folk poetry, which provides straightforward imagery to illuminate somewhat more obscure themes. The most overriding musical characteristic of the songs Strauss wrote to Brentano’s poems is their constant forward motion and organic extension of the melodic lines. Strauss arranged Opus 68 for voice and orchestra in 1940.

In the first of the Opus 68 songs, “An die Nacht” (To the Night), Strauss sets the three-stanza poem describing the mysterious power of night with a modified strophic structure. Although the text is primarily syllabic, there are melismatic

---


moments that foreshadow the highly ornate vocal lines in the other Opus 68 songs.

The melismatic nature of Strauss’ songs, as well as their complex harmonic texture is similar to the virtuosic music of his operas. In the song “Ich wollt ein Sträußlein binden” (I Meant to Make You a Posy), the first syllable of the word "Sträußlein" is sung over several notes, while the piano supports the voice and reiterates the song’s basic melodic theme. In “Säusle, liebe Myrte” (Whisper, Dear Myrtle), Strauss’ long lyric lines carry forward the interior landscape, which describes the quite world surrounding the narrator. The last of the six songs selected, “Amor” (Cupid), relies on vocal gestures such as scale passages and arpeggios on a single syllable.

Säusle, liebe Myrte!
Säusle, liebe Myrte!
Wie still ist’s in der Welt,
Der Mond, der Sternenhirte
Auf klarem Himmelsfeld,
Treibt schon die Wolkenschafe
Zum Born des Lichtes hin,
Schlaf, mein Freund, o schlafe,
Bis ich wieder bei Dir bin!

Säusle, liebe Myrte
Und träum’ im Sternenschein,
Die Turteltaube girrte
Ihre Brut schon ein.
Still ziehn die Wolkenschafe
Zum Born des Lichtes hin,
Schlaf, mein Freund, o schlafe,
Bis ich wieder bei dir bin!

Hörst du, wie die Brunnen rauschen?
Hörst du, wie die Grille zirpt?
Stille, stille, laßt uns lauschen,
Selig, wer in Träumen stirbt;
Selig, wen die Wolken wiegen,
Wenn der Mond ein Schlaflied singt;
Oh! wie selig kann der fliegen,
Dem der Traum den Flügel schwingt,
Daß an blauer Himmelsdecke

Whisper, dear Myrtle!
Rustle, dear Myrtle!
How quiet it is in the world,
The moon, the shepherd of the stars
In the bright field of heaven,
Is driving the cloud-sheep already
To the spring of light;
Sleep, my friend, o sleep,
Until I am with you again!

Rustle, dear Myrtle!
And dream in the starlight;
The turtledove has cooed
Her brood to sleep.
Quietly the cloud-sheep float
Toward the spring of light;
Sleep, my friend, o sleep,
Until I am with you again!

Do you hear how the fountains roar?
Do you hear how the cricket twitters?
Hush, hush, let us listen.
Blessed is he who dies in his dreams;
Blessed is he whom clouds cradle,
To whom the moon sings a lullaby;
Oh! how blissfully can he fly,
He who brandishes wings in his Dreams,
so that on the blue roof of Heaven he
Sterne er wie Blumen pflückt;
Schlaf, träume, flieg, ich wecke
Bald Dich auf und bin beglückt!

An die Nacht
Heilige Nacht! Heilige Nacht!
Sternengeschlossner Himmelsfrieden!
Alles, was das Licht geschieden,
Ist verbunden,
Alle Wunden
Bluten süß im Abendrot.

Bjelbogs Speer, Bjelbogs Speer
Sinkt ins Herz der trunken Erde,
Die mit seliger Gebärde
Eine Rose
In dem Schoße Dunkler Lüste
niedertaucht.

Heilige Nacht! züchtige Braut,
züchtige Braut!
Deine süße Schmach verhülle,
Wenn des Hochzeitsbechers Fülle
Sich ergießet;
Also fließet
In die brünstige Nacht der Tag!

Ich wollt ein Sträußlein binden
Ich wollt ein Sträußlein binden,
Da kam die dunkle Nacht,
Kein Blümlein war zu finden,
Sonst hätt ich dir's gebracht.

I Meant to Make You a Posy
I would have made a bouquet,
But dark night arrived,
And there was no little flower to be found, Or I would have brought it.

Da flossen von den Wangen
Mir Tränen in den Klee,
Ein Blümlein aufgegangen
Ich nun im Garten seh.

Then down my cheeks flowed
Tears onto the clover,
I saw that one small flower had come up,
Now in the garden.

Das wollte ich dir brechen
Wohl in dem dunklen Klee,
Doch fing es an zu sprechen:
Ach, tue mir nicht weh!

I wanted to pick it for you
Deep in the dark clover,
But it began to speak:
"Ah, do not harm me!

Sei freundlich in dem Herzen,
Betracht dein eigen Leid,
Und lasse mich in Schmerzen

Be kind-hearted,
Consider your own grief,
And do not let me
Nicht sterben vor der Zeit!

Und hätt's nicht so gesprochen,
Im Garten ganz allein,
So hätt ich dir's gebrochen,
Nun aber darf's nicht sein.

Mein Schatz ist ausgeblieben,
Ich bin so ganz allein.
Im Lieben wohnt Betrüben,
Und kann nicht anders sein.

Amor
An dem Feuer saß das Kind
Amor, Amor
Und war blind;
Mit den kleinen Flügel fächelt
In die Flammen er und lächelt,
Fächle, lächle, schlaues Kind.

Cupid
In the fire sat the child,
Cupid, Cupid
And he was blind;
With his little wings he fanned the flames and he laughed,
Fanning, laughing, sly child.

Ach, der Flügel brennt dem Kind!
Amor, Amor
Läuft geschwind!
O wie ihn die Glut durchpeinet!
Flügelschlagend laut er weinet;
In der Hirtin Schoß entrinnt
Hülfeschreiend das schlaue Kind.

Oh, the fire burnt the child
Cupid, Cupid
Ran quickly.
0, how the pain ran through him!
Beating his wings, loudly he wept.
Into the Shepherdess' lap he runs
Crying help - the sly child.

Und die Hirtin hilft dem Kind,
Amor, Amor
Bös und blind.
Hirtin, sieh, dein Herz entbrennet,
Hast den Schelm du nicht gekennet.
Sieh, die Flamme wächst geschwinde.
Hüt dich vor dem schlauen Kind

And the Shepherdess helped him,
Cupid, Cupid
Wicked and blind.
Shepherdess, see how your heart is on fire, Did you not recognize the rogue?
See how quickly the flames grow.
Beware, beware of the sly child!

Translations by Bard Suverkrop

Fêtes galantes pour Madame Vasnier (1884)  Claude Debussy (1862-1918)

Text by Paul Verlaine (1844-1896)

Claude Debussy was a French composer who, along with Maurice Ravel, is commonly associated with Impressionist music, although he disliked the term
himself. His harmonic innovations had a profound influence on generations of composers. In 1902, he made a decisive move away from Wagnerism in his only complete opera, Pelléas et Mélisande. Debussy's works for piano and orchestra created a new genre and revealed a range of timbre and color for a highly original musical aesthetic that created an atmospheric effect of mood and landscape.  

Debussy was highly accomplished at blending poetry and music. He wrote over eighty mélodies, although many of the songs are unpublished or exist only in preliminary sketches. The songs composed during his youth are largely unexplored. During the early 1880s, Debussy began an affair with the singer Marie-Blanche Vasnier, who is assumed to have been the inspiration for many of his early songs. Marie-Blanche Vasnier and her husband gave Debussy emotional and financial support, and introduced him to influential contemporary French writers such as Paul Verlaine (1844-1896), a poet associated with the Symbolist movement. In 1884, Debussy compiled an autographed book of thirteen songs dedicated to Madame Vasnier known as “The Vasnier Songbook”. The relationship eventually faltered following his winning of the Prix de Rome in 1884 and subsequent obligatory residence in Rome. Although “The Vasnier Songbook” remains unpublished in its entirety, many of the songs can be found in other sources, although often slightly altered. Paul Verlaine published Les Fêtes galantes in 1869, a

---

collection of poems inspired by the paintings of Watteau depicting elegantly dressed Parisian aristocrats in their idle pursuits of entertainment, generally outdoors.\textsuperscript{7}

Debussy's music reflects the fanciful and flirtatious moods displayed in both Watteau's paintings and Verlaine's poetry. His song “Pantomime” is a good example of these themes and opens with a light and playful melody. In “En saurdine,” nature is a refuge for young lovers from the suffering of the world, using the piano accompaniment to depict the rustling grasses and pastoral atmosphere. “Claire de lune” captures the essence of a peaceful moonlit evening through Debussy's use of long legato lines. For "Mandoline," Debussy demonstrated his talent of elegant lyricism, using the piano to imitate the sound of a mandolin which serves as a unifying element throughout the piece. Finally in “Fantoches,” Debussy paints a witty scene full of characters from the Italian \textit{commedia dell’arte}, serving as characterizations rather than following a plot.

\textbf{Pantomime}

Pierrot, qui n’a rien d’un Clitandre,  
Vide un flacon sans plus attendre,  
Et, pratique, entame un pâté.  

Cassandre, au fond de l’avenue,  
Verse une larme méconnue  
Sur son neveu déshérité.  

Ce faquin d’Arlequin combine  
L’enlèvement de Colombine  
Et pirouette quatre fois.  

Colombine rêve, surprise  
De sentir un cœur dans la brise  
Et d’entendre en son cœur des voix.  

---

\textsuperscript{7} Kimball, \textit{Song}, 190-6.
En sourdine
Calmes dans le demi-jour
Que les branches hautes font,
Pénétrons bien notre amour
De ce silence profond.

Fondons nos âmes, nos cœurs
Et nos sens extasiés,
Parmi les vagues langueurs
Des pins et des arbousiers.

Ferme tes yeux à demi,
Croise tes bras sur ton sein,
Et de ton cœur endormi
Chasse à jamais tout dessein.

Laissons-nous persuader
Au souffle berceur et doux
Qui vient, à tes pieds, rider
Les ondes des gazons roux.

Et quand, solennel, le soir
Des chênes noirs tombera
Voix de notre désespoir,
Le rossignol chantera.

Mandoline
Les donneurs de sérénades
Et les belles écouteuses
Échangent des propos fades
Sous les ramures chanteuses.

C’est Tircis et c’est Aminte,
Et c’est l’éternel Clitandre,
Et c’est Damis qui pour mainte
Cruelle fait maint vers tendre.

Leurs courtes vestes de soie,
Leurs longues robes à queues,
Leur élégance, leur joie
Et leurs molles ombres bleues,

Tourbillonnent dans l’extase
D’une lune rose et grise,

Mandoline
The givers of serenades
And the lovely women who listen
Exchange insipid words
Under the singing branches.

Mandoline
There is Thyrsis and Amyntas
And there's the eternal Clytander,
And there's Damis who, for many a
Heartless woman, wrote many a tender
verse.

Mandoline
Their short silk coats,
Their long dresses with trains,
Their elegance, their joy
And their soft blue shadows,

Mandoline
Whirl around in the ecstasy
Of a pink and grey moon,
Et la mandoline jase  
Parmi les frissons de brise.

And the mandolin prattles  
Among the shivers from the breeze

**Claire de lune**  
Votre âme est un paysage choisi  
Que vont charmant masques et bergamasques,  
Jouant du luth et dansant, et quasi  
Tristes sous leurs déguisements fantasques!

Your soul is a chosen landscape  
Charmed by masquers and revellers  
Playing the lute and dancing and almost  
Sad beneath their fanciful disguises!

Tout en chantant sur le mode mineur  
L’amour vainqueur et la vie opportune.  
Ils n’ont pas l’air de croire à leur bonheur,  
Et leur chanson se mêle au clair de lune,

Even while singing, in a minor key,  
Of victorious love and fortunate living  
They do not seem to believe in their happiness, And their song minglest with the moonlight,

Au calme clair de lune triste et beau,  
Qui fait rêver, les oiseaux dans les arbres,  
Et sangloter d’extase les jets d’eau,  
Les grands jets d’eau sveltes parmi les marbres.

The calm moonlight, sad and beautiful,  
Which sets the birds in the trees dreaming, and Makes the fountains sob with ecstasy, the tall Slender fountains among the marble statues!

**Fantoches**  
Scaramouche et Pulcinella,  
Qu’un mauvais dessein rassembla,  
Gesticulent noirs sous la lune,

Scaramouche and Pulcinella,  
Brought together by some evil scheme  
Gesticulate, black beneath the moon.

Cependant l’excellent docteur Bolonais  
Cueille avec lenteur des simples  
Parmi l’herbe brune.

Meanwhile, the learned doctor  
From Bologna slowly gathers  
Medicinal herbs in the brown grass.

Lors sa fille, piquant minois,  
Sous la charmille, en tapinois,  
Se glisse demi-nue,

Then his sassy-faced daughter  
Sneaks underneath the arbor  
Half-naked, in quest

En quête de son beau pirate espagnol,  
Dont un langoureux rossignol  
Clame sa détresse à tue-tête.

Of her handsome Spanish pirate,  
Whose distress a languorous nightingale Deafeningly proclaims.

Translations by Bard Suverkrop
Roger Quilter is a British composer generally known for his songs. He greatly added to the English art song canon by composing more than one hundred songs, many of which are still sung today. He attended Eton College and later Hoch Conservatory in Frankfurt where he studied composition with Iwan Knorr and became a member of the Frankfort Group, a circle of composers who studied at the Hoch Conservatory in the late 1890s.8

Quilter’s songs are in the late-romantic English style, which displayed a renewed interest in English folk song with their focus on its landscape and heritage. A lover of English poetry, many of Quilter’s songs are set to well-known poems by established poets such as Shakespeare, Herrick, Blake, Shelley, and Tennyson, among others. Quilter collaborated with tenor Gervase Elwes and wrote many songs for his voice until Elwes’s death in 1921. His vocal writing intuitively highlights the text with unique melody and expressive harmony. Most of his renowned songs were written before World War I. Many of Quilter’s songs are representative of his lyrical musical language and romantic pastoral imagery.9 In this arrangement of “I will go with my father a-ploughing,” “Cherry Valley,” and “I wish and I wish,” violin and cello add to the texture and create a greater variety of timbre as the lines interact with and support the voice.


9 Kimball, Song, 367-70.
I will go with my father a-ploughing
I will go with my father a-ploughing
To the green field by the sea,
And the rooks and the crows and the seagulls
Will come flocking after me.
I will sing to the patient horses
With the lark in the white of the air,
And my father will sing the plough-song
That blesses the cleaving share.

I will go with my father a-sowing
To the red field by the sea,
And the rooks and the gulls and the starlings
Will come flocking after me.
I will sing to the striding sowers
With the Finch on the greening sloe,
And my father will sing the seed-song
That only the wise men know.

I will go with my father a-reaping
To the brown field by the sea,
And the geese and the crows and the children
Will come flocking after me.
I will sing to the tan-faced reapers
With the wren in the heat of the sun,
And my father will sing the scythe song
That joys for the harvest done.

Cherry Valley
And in their time with clusters red
The scented boughs are crimsonèd.

Now the moon is looking thro’
The glimmer of the honey dew.
A petal trembles to the grass,
The feet of fairies pass and pass.

In Cherry Valley the cherries blow:
The valley paths are white as snow.

I wish and I wish
I wish and I wish
And I wish I were
A golden bee
In the blue of the air,
Winging my way
At the mouth of day
To the honey marges
Of Loch-ciuin-ban;
Or a little green drake,
Or a silver swan,
Floating upon
The stream of Aili,
And I to be swimming
Gaily, gaily!

**Dream With Me (1950)**

Leonard Bernstein was a great American composer, conductor, and music lecturer. For many years he was the music director of the New York Philharmonic orchestra and was the first conductor to give numerous television lectures on classical music. As a composer, he wrote in many styles including symphonic orchestral music, choral works, film and theater music, among others. One of his best-known works is the musical *West Side Story*.\(^{10}\)

Bernstein composed a theatrical score for a production of Sir J.M. Barrie’s classic play, *Peter Pan*, which opened on Broadway in 1950. As he was not the musical director or a direct collaborator in the original production, several of the musical numbers he wrote were cut or altered. Conductor Alexander Frey discovered the omitted material in 2000 and began restoring the full score, which includes the songs “Dream With Me” and “Capitan Hook’s Soliloquy.” A revised edition was shortly afterwards published incorporating all of Bernstein’s songs and incidental music into the play and included a full orchestral score. In 2005, a

recording was released, followed by the first production of the full work in 2006 at The King's Head Theater in London.11

“Dream With Me” was written for the character Wendy to sing Peter Pan to sleep. The long lyrical lines and wistful lyrics are evocative of a lullaby. This beautiful arrangement is for voice and cello with piano accompaniment.

**Dream With Me**  
Dream with me tonight.  
Tonight and ev'ry night,  
wherever you may chance to be.  
we'er together, if we dream the same sweet dream.  
And though we'er far apart,  
Keep me in your heart  
And dream with me.

The kiss we never dared  
We'll dare in dreaming  
The love we never shared  
Can still have meaning.  
If you only dream a magic dream  
With me tonight

Tonight and ev'ry night  
Wherever you may chance to be  
Close your lovely eyes and dream with me.

The kiss we never dared  
We'll dare in dreaming  
The love we never shared  
Can still have meaning.  
If you only dream a magic dream  
With me tonight

Tonight and ev'ry night  
Wherever you may chance to be  
Close your lovely eyes and dream with me.

---

Presents
Diana L. Vetter
In a DMA Voice Recital

May 1, 2014, 7:30 pm
Singletary Recital Hall

PROGRAM

Siete Canciones Populares Españolas
  El paño moruno
  Seguidilla muricana
  Astriana
  Jota
  Nana
  Canción
  Polo

  Manuel de Falla (1876-1946)
  arr. Miguel Llobet (1878-1838)

Jeremy Bass, guitar

Bachianas Brasileiras No. 5
  I. Aria

  Heitor Villa-Lobos (1887-1959)

Jeremy Bass, guitar

-INTERMISSION-

Chants d’Auvergne
  La Pastrouletta è lou chibaliè
  Brezairola
  Malurous qu’o uno fenno
  Baîlêro

  Joseph Canteloube (1879-1957)

John Greer, piano
Natalie Watkins, harp

Three Browning Songs, Op. 44
  I Send My Love Up to Thee
  Ah, Love, but a Day
  The Year’s at the Spring

  Amy Beach (1867-1944)

John Greer, piano

This recital is presented in partial fulfillment of the requirements of the Doctorate of Music in Vocal Performance. Diana Vetter is a student of Dr. Angelique Clay.
Chamber Recital Program Notes

**Siete Canciones Populares Españolas (1914)**  Manuel de Falla (1876-1946)

Text from Spanish folk poetry

Born in Cadiz, Spain, de Falla learned music as a boy from his mother, an amateur pianist, and from his grandfather. As a child, he absorbed himself in his endeavors with unswerving focus and attention to detail. His great fastidiousness and self-criticism carried over into adulthood and significantly impacted his output as a composer as he was unwilling to present to the public anything that he felt was not absolutely perfected. In 1896, at the age of 20, de Falla moved to Madrid to attend the conservatory to study piano. Three years later in 1899, by unanimous vote, he was awarded the first prize at the school’s piano competition where he premiered his first works.

During his time in Madrid, de Falla became interested in native Andalusian music, particularly Andalusian flamenco, the influence of which can be strongly felt in many of his works. De Falla moved to Paris in 1907, and in 1910 he met Igor Stravinsky and traveled briefly to London. While in London, he composed all seven of his *Siete Canciones Populares Españolas* by mid-1914 at the age of 38. In 1915, the songs were premiered in Madrid after he was forced to leave Paris due to the start of World War I.\(^{12}\)

De Falla successfully managed to incorporate a Spanish folk idiom with his modern aesthetic into the work that would secure his place in the canon of musical

history and that of Spain’s as a well-respected twentieth century composer.

Although many his pieces are melodically similar to their folksong counterparts, de Falla infused them with his own aesthetic of natural resonance, which became the harmonic foundation of his style that influenced later composers.\(^{13}\)

The long, dance-like piano introduction in the first song of the *Siete Canciones Populares Españolas*, “El Paño Moruno,” sets the tone for the work as the piano (or guitar) is as much a solo instrument in the work as is the voice. The text reflects the Spanish quebrado poetry style, used in almost all of the seven songs, which is comprised of two lines with eight syllables each. The text also has “the sting in the tail” referring to the last two lines of the poem which contain the most impact. This common poetic device places the emphasis and significant meaning on the last two lines and is therefore often composed first. The second song, “Seguidilla Muricana,” comes from the tradition of improvised oral poetry simultaneously composed and performed for verbal dueling in which two parties hurl insults at each other. The transfer of this dueling style into art song is a striking contrast to traditional art song forms. “Austriana,” the third song, is contained and quiet. The song evokes a sense of numbness caused by intense sorrow demonstrated by the voice floating over an accompaniment that mimics the steady drip of rain. Composed of all original music, “Jota,” the fourth song of the work, represents a dance of the same name from Aragon conceived by an Arab musician who was exiled to Calatayud. The fifth song, “Nana,” is a lullaby throughout Spain, for which there are many different versions depending on the region. Reflecting on the earliest of his musical

\(^{13}\) Kimball, *Song*, 502-6.
memories, de Falla uses the version that his mother sang to him, the Andalusian Nana with an East Indian influence. The steady accompaniment creates the rocking of the cradle while the vocal provides an unhurried soothing tone that continues until the child falls asleep and perhaps even a little longer. In “Canción,” the sixth song, the musical interest comes from the unusual cadences at the ends of the verses along with the humorous, whiney, love-sick text, “madre” which ends each stanza. “Polo,” the final song, is de Falla’s own invention. He gives the poetry more time by breaking up and repeating lines. The musical representation is less contrived than the previous songs and has a more human interpretation that evokes the true emotions of being wronged in love. A prominent feature of the music is the Andalusian Flamenco dance.14

---

**El paño moruno**

*El paño moruno*

Al paño fino, en la tienda,
una mancha le cayó;
Por menos precio se vende,
Porque perdió su valor.
¡Ay!

---

**The Moorish Cloth**

*The Moorish Cloth*

On the fine cloth in the store
a stain has fallen;
It sells at a lesser price,
because it has lost its value.
Alas!

---

**Astriana**

*Astrian*

Por ver si me consolaba,
Arrime a un pino verde,
Por ver si me consolaba.

Por verme llorar, lloraba.
Y el pino como era verde,
Por verme llorar, lloraba.

---

**Astriana**

To see whether it would console me,
I drew near a green pine,
To see whether it would console me.

Seeing me weep, it wept;
And the pine, being green,
Seeing me weep, wept.

---

**Jota**

*Jota*

Dicen que no nos queremos
Porque no nos ven hablar;
A tu corazón y al mío

---

**Jota**

They say we don’t love each other
because they never see us talking;
But they only have to ask

---

Se lo pueden preguntar.
Ya me despido de tí,
De tu casa y tu ventana,
Y aunque no quiera tu madre,
Adiós, niña, hasta mañana.
Aunque no quiera tu madre...

Nana
Duérmete, niño, duerme,
Duerme, mi alma,
Duérmete, lucerito
De la mañana.
Nanita, nana,
Nanita, nana.
Duérmete, lucerito
De la mañana.

Canción
Por traidores, tus ojos,
voy a enterrarlos;
No sabes lo que cuesta,
“Del aire”
Niña, el mirarlos.
“Madre a la orilla
Madre.”

Dicen que no me quieres,
Ya me has querido...
Váyase lo ganado,
“Del aire
Por lo perdido,
“Madre a la orilla,
Madre.”

Polo
¡Ay!
Guardo una, ¡Ay!
¡Guardo una pena en mi pecho,
¡Ay!
Que a nadie se la diré!
Malhaya el amor, malhaya, ¡Ay!
¡Y quien me lo dió a entender!
¡Ay!

both your heart and mine.
Now I bid you farewell,
your house and your window too,
and even ... your mother
Farewell, my sweetheart
until tomorrow.

Lullaby
Go to sleep, child, sleep,
Sleep, my soul,
Go to sleep, little star
Of the morning.
Lulla-lullaby,
Lulla-lullaby,
Sleep, little star
of the morning.

Song
Because your eyes are traitors
I will bury them away;
You don’t know what it costs me,
“of that look”
Girl, to look at them (your eyes).
"Mother, on the brink,”
"Mother."

They say you do not love me anymore
But you have already loved me.
Do away, all that was gained,
“of that look”
In exchange for all that which is lost,
“Mother, on the brink,
Mother.”

Polo
Ay!
I keep a... (Ay!)
I keep a sorrow in my breast,
Ay!
That to no one will I tell.
Wretched be love, wretched, Ay!
And he who gave me to understand it!
Ay!

Translations by Claudia Landivar Cody
Bachianas Brasileiras No. 5 (1930-1945)  Heitor Villa-Lobos (1887-1959)

Text by Ruth Valladares Corrêa (1904-ca.1963)

Heitor Villa-Lobos was born in Rio de Janeiro, Brazil during a period of rapid social revolution and modernization. Slavery was abolished in 1888 and the Empire of Brazil was overthrown in 1889. The changes in his country would later be a stronger influence on his music than European music, which had been the dominant influence during the time and was grounded in traditional counterpoint and harmony. Villa Lobos’ early years were guided by his father, who was an educated man of Spanish extraction and a musician. Despite a few abortive harmony lessons and formal musical training, Villa Lobos learned to play the cello, the guitar, and the clarinet. In 1899 his father died suddenly and Villa Lobos earned a living for his family by playing in cinema and theatre orchestras in Rio.

Around 1905, an eighteen-year-old Villa Lobos began going on expeditions to explore Brazil’s various regions, including the Amazon, to absorb the native Brazilian musical cultural heritage. Villa Lobos absorbed the musical influences of Brazil’s indigenous culture, based on Portuguese, African, and Native American elements, into his own music. Some of his earliest compositions were the result of improvisations on the guitar when he played with many local Brazilian street bands.

In 1912, Villa Lobos ended his travels, married pianist Lucília Guimarães, and began his career as a serious musician with his first music published in 1913. In 1916 he composed the symphonic poems Amazonas (performed in 1929) and Uirapurú (performed in 1935), which drew from native Brazilian legend and used “primitive” folk material. Villa Lobos’ style was definitively Brazilian, but also
influenced by European forms and harmony. In 1918, Villa Lobos met pianist
Arthur Rubinstein who encouraged him to write more piano music. Rubinstein also
came a lifelong friend and champion of Villa Lobos suggesting he tour abroad to
exhibit his exotic sound, which he did in 1923-24 and 1927-30 in Paris. The
concerts were well received and made a strong impression of his accomplishment as
a composer.15

Upon his return home, Villa Lobos composed nine pieces between 1930 and
1945 that he called Bachianas Brasileiras (Brazilian Bachian), which took on the
form of nationalism and displayed the composer’s love of Bach. Rather than being
conceived as a whole, the pieces evolved over a fifteen-year period, with some being
revised or added to multiple times. The Bachianas Brasileiras contain some of Villa
Lobos most popular music, such as No. 5 for soprano and eight cellos (1938-1945)
and No. 2 for orchestra (1930), both of which show the composer’s love for the tonal
qualities of the cello; No. 1 and No. 5 were originally scored only for the cello. Villa
Lobos often integrated the diverse variety of Brazil’s cultures into his music. He
stated, “It is only nature and humanity that can lead an artist to truth...I study the
history, the country, the speech, the customs, the background of the people. I have
always done this, and it is from these sources, spiritual as well as practical, that I
have drawn my art.”16

15 Gerard Béhague, "Villa-Lobos, Heitor," Grove Music Online, Oxford Music Online,

16 Kimball, Song, 528-9.
Bachianas Brasileiras No. 5
Tarde, uma nuvem rósea, lenta e transparente sobre o espaço, sonhadora e bela!

Eventide, a rosy cloud, slow and transparent over the spot, dreamlike and beautiful!

Surge no infinito a lua docemente, enfeitando a tarde, qual meiga donzela que se apresta e a linda sonhadoramente, em anseios d’alma para ficar bela grita ao céu e a terra, toda a Natureza!

The moon gently appearing beyond the horizon, embellishing the eventide, like a sweet maid preparing herself till she’s dreamily gorgeous, with her soul avid to become beautiful bleating to heaven and earth, to all of Nature!

Cala a passarada aos seus tristes queixumes e reflete o mar toda a Sua riqueza...
Suave a luz da lua desperta agora a cruel saudade que ri e chora!
Tarde, uma nuvem rósea lenta e transparente sobre o espaço, sonhadora e bela!

Silent are the birds to her sad laments And reflected on the sea all of Her richness... Soft the light of the moon awakes already a fierce desire that laughs and cries!
Eventide, a rosy cloud, slow and transparent over the spot, dreamlike and beautiful!

Chants D’auvergne (1923-1930)

Joseph Canteloube (1879-1957)

Text from French folk poetry

Born in Annonay, Ardèche to a family with deep roots in the Auvergne region in France, Joseph Canteloube is best known for his folk song arrangements. He studied piano from the age of six, and after earning his baccalaureate degree, worked for a bank in Bordeaux. Upon his father’s death in 1896 he returned to his family home to care for his mother who died three years later. Canteloube was reluctant to leave his wife, Charlotte Marthe Calaret whom he married in 1901, and their twin sons Pierre and Guy born in 1903, at home while he would go away to study music. After beginning his studies via correspondence in 1901 with Vincent
d'Indy, he eventually entered the Schola Cantorum in Paris in 1907 at the persistent urging of his teacher.¹⁷

For more than 30 years (1924-1955), Canteloube wrote his most admired and famous collection of songs, *Chants D’Auvergne*. The songs were written for soprano voice and sung in the local dialect, Occitan, a romance language based on Latin and spoken in southern France. The songs are passionate and reflect the landscape of the Auvergne region. “Baïlèro,” the best known of the songs, has been the most frequently recorded and performed with slight variations from the original. Another favorite, “Brezairola,” which means lullaby, is the cradling song of a mother who is extremely fatigued, imploring sleep to fall upon her restless baby. For two full verses she pleads, each with a different melodic contour over dreamy, sighing figures from the accompaniment. In the third verse, the child finally falls asleep, depicted with a musical reprise of the first verse but with stronger accompaniment. The mother herself then seems to drift off to sleep with a relieved and weary, “Ah.”¹⁸

---

**La Pastrouletta è lou chibaliè**

"Lougarias bou’un’gardaïré, pastrouletto?"
"Né gardaraï bé prou souletto, chibalié!
Né gardarai bé prou souletto,

---

**The Lass and the Lad**

"Would you like a little help, shepherd lass?"
"I can mind my flock alone, sir, I can mind my flock alone, young nightingale!"

---


"Will you come sit in the shade, shepherd lass?"
"The shade is damp with dew, sir, The shade is damp with dew, young nightingale!"

"Over there the heather is dry, shepherd lass!"
"Then let us go there for an hour, sir! Then let us go there for an hour, young nightingale!"

Brezairola
Soun, soun, béni, béni, béni;
Soun, soun, béni, béni, doun,
Soun, soun, béni, béni, béni;
Soun, soun, béni, d’en docon!
Lou soun, soun, bouol pas béni, pécairé!
Lou soun soun bouol pas béni.

Lullaby
Soun, soun, blessed, blessed, blessed;
Soun, soun, blessed, blessed, doun,
Soun, soun, blessed, blessed, blessed;
Soun, soun, come when you will
Lou soun, soun, sleep will not come
Sleep will not come.

The little one does not fall to sleep Oh!
Soun, soun, blessed, blessed, blessed;
Soun, soun, blessed, blessed, doun,
Lou soun, soun sleep will not come.
The child will not sleep
Soun, soun, blessed, blessed, blessed;
Soun, soun, blessed, the child! Oh! Oh!

Soun, soun, blessed, etc.
Finally, it arrives
Finally, it arrives
The little one falls asleep ... Ah!

Malurous qu’o uno fenno
Unfortunate is the one that has a woman
Unfortunate is the one who does not!
One who has does not want
The one who has does not want!
Tradèra, ladèri dèrêro
ladèra, ladèri dèra.

Soun, soun, blessed, etc.
Finally, it arrives
Finally, it arrives
The little one falls asleep ... Ah!
Urouzo lo fenno
Qu’o l’omé qué li cau!
Urouz’ inquéro maito
O quèlo qué n’o cat!
Tradèra, ladèri dérèro
ladèra, ladèri dèra.

Happy is the woman
Who has the man she wants!
More pleased is the one
Who has not!
Tradèra, ladèri dérèro
ladèra, ladèri dèra.

Bailèro
Pastré, dè délai l’aïo,
a gairé dé boun tèms?
Dio lou bailèro lèro, lèro, lèro, lèro,
bailèro, lô!
È n’ai pa gaire, è dio, tu?
Bailèro lèro, lèro, lèro, bailèro lô!

Shepherd, on the other side of the water,
you are not having a very good time?
Call the bailèiro lèro lèro lèro lèro bailèrô lô!
No I am not, and you, call?
Bailèro lèro, lèro, lèro, lèro, bailèrô lô!

Pastré, lou prat faï flour, li cal
gorda touin troupel!
Dio lou bailèro lèro, lèro, lèro, lèro,
bailèro, lô!
L’erb es pu fin’ ol prat d’oici!
Bailèro lèro, lèro, lèro, lèro, bailèro lô!

Shepherd, the grass is in bloom,
come here to take care of your flock!
Call the bailèiro lèro, lèro, lèro,
lèro, bailèrô lô!
The grass is preferable here, come over!
Bailèro lèro, lèro, lèro, lèro, bailèrô lô!

Pastré, couci foraï, en obal io lou bel
tiu!
Dio lou bailèro lèro, lèro, lèro, lèro,
bailèro, lô!
Es péromè, té baô circa!
Bailèro lèro, lèro, lèro, lèro, bailèro lô!

Shepherd, the water separates us
and I cannot cross!
Call the bailèiro lèro, lèro, lèro,
lèro, bailèrô lô!
I will descend to fetch you!
Bailère lèro, lèro, lèro, lèr, bailèrô lô!

Transliterations by Elizabeth Brodovitch

Three Browning Songs, Op. 44 (1899-1900)  Amy Beach (1867-1944)

Text by Robert Browning (1812-1889)

Born in Henniker, New Hampshire, the only child of a distinguished New
England family, Beach was drawn to music early in her life, composing piano pieces
at the age of four. Once she began formal piano training, Beach gave public recitals,
playing Handel, Beethoven, Chopin, and her own pieces. By age fourteen after her
family moved to Boston Beach received her only formal training in composition
including harmony and counterpoint for a year, and made her debut performing with the Boston orchestra. In 1885 at the age of 18, Beach married Dr. Henry Harris Aubrey Beach, a surgeon, Harvard professor, and musician 24 years her senior.\footnote{Kimball, Song, 252-4.}

Following her husband’s wishes, she agreed to limit her performances to one public recital a year with proceeds donated to charity, and to devote the remainder of her time to composition.

After her husband’s death in 1910 Beach was 43 years old and determined to establish a reputation as both a performer and composer and toured Europe for three years as a pianist playing her compositions to much commendation. When World War I broke out in 1914, Beach returned to the United States and established permanent residence in New York. Beach passed the years touring in the winter and composing in the summer. As an American composer and pianist of large-scale art music, most of Beach’s approximately 300 works include a mass, symphony, violin sonata, piano concerto, piano quintet and piano trio, choral and chamber music compositions, piano music, opera. Under the name of Mrs. H.H.A. Beach, she wrote approximately 117 songs set to poems she liked by various poets. Although most of her writing was in a Romantic idiom often compared to that of Brahms or Rachmaninoff, Beach’s later works moved away from tonality, employing whole tone scales and more exotic harmonies and techniques.\footnote{Adrienne Fried Block and E. Douglas Bomberger. "Beach, Amy Marcy," Grove Music Online, Oxford Music Online, Oxford University Press, http://www.oxfordmusiconline.com.ezproxy.uky.edu/subscriber/article/grove/music/A2248268.} She was best known for
her songs, and “The Year’s At the Spring” from *Three Browning Songs, Opus 44* is perhaps Beach’s most widely-known work.

**I send my heart up to thee, all my...**
I send my heart up to thee, all my heart
In this my singing,
For the stars help me, and the sea, and the sea bears part;
The very night is clinging
Closer to Venice’ streets to leave on space
Above me, whence thy face
May light my joyous heart to thee, to thee its dwelling place.

**Ah, Love, but a Day**
Ah, Love, but a day,
And the world has changed!
The sun’s away,
And the bird estranged;
The wind has dropped,
And the sky’s deranged;
Summer has stopped.

Look in my eyes!
Wilt thou change too?
Should I fear surprise?
Shall I find aught new
In the old and dear,
In the good and true,
With the changing year?

Thou art a man,
But I am thy love.
For the lake, its swan;
For the dell, its dove;
And for thee — (oh, haste!)
Me, to bend above,
Me, to hold embraced.

Ah, love, but a day,
and the world has changed! Ah, love, but a day,
and the world has changed! The sun’s away
and the bird estranged.
The wind has dropped
and the sky’s deranged. Summer, summer has stopped. Summer has stopped.
Ah, love, but a day,
and the world has changed!

Look in my eyes!
Wilt thou change too? Look in my eyes!
Wilt thou change too? Should I fear surprise? Shall I find aught new
in the old and dear,
in the good and true
with the changing year? Ah, love, look in my eyes! Look in my eyes!
Wilt thou change too?

The Year's at the Spring
The year's at the spring,
And day's at the morn;
Morning's at seven;
The hill-side's dew-pearl'd;
The lark's on the wing;
The snail's on the thorn;
God's in His heaven--
All's right with the world!
PROGRAM

Introduction
Text by Paul Verlaine (1844-1896) *Fêtes galantes* (1869)

En Sourdine (1882) from *Fêtes galantes*  
Claude Debussy (1862-1918)

En Sourdine (1887-1890) from *7 Chanson Grises*  
Reynaldo Hahn (1875-1947)

En Sourdine (1891) from *Cinq mélodies de Venise*  
Gabriel Fauré (1845-1924)

En Sourdine (1891-1892) from *Fêtes galantes I*  
Claude Debussy (1862-1918)

En Sourdine (1898) from *Melodies de Paul Verlaine*  
Eugène Lacroix (1858-1950)

En Sourdine (1948)  
Auguste Descarries (1896-1956)

This recital is presented in partial fulfillment of the requirements of the Doctorate of Musical Arts in Vocal Performance. Diana Vetter is a student of Dr. Angelique Clay.
“En Sourdine”

An Examination of Six Musical Settings from Paul Verlaine’s Poem “En Sourdine” from his 1869 collection of works *Fêtes Galantes*.

**Introduction**

“En Sourdine,” translated softly or quietly, was authored by French poet Paul Verlaine in his collection of works entitled *Fêtes Galantes*, meaning “Courtship Party” or “Galant Festival,” published in France in 1869. Although there are more than a dozen song settings to this specific poem, the most popular have been chosen, as well as some of the most harmonically and melodically interesting arrangements. The five composers of these settings are Reynaldo Hahn (1875-1947), Gabriel Fauré (1845-1924), Eugène Lacroix (1858-1950), Auguste Descarries (1896-1956), and two settings by Claude Debussy (1862-1918). The songs themselves span the course of 76 years and each contains similarities and unique differences, which will be explored and reviewed.

**Paul Verlaine, poet**

Paul Verlaine was born on March 30, 1844 in Metz, France. He received his secondary education in Paris and quickly retained a job as a civil servant in the city. Discovering a deep love of poetry as a child, he began writing at an early age. His first poem was published in 1863 in a French magazine.

While in his mid-twenties, Verlaine was a frequent staple at various local salons, mingling with the great artistic minds of the time including French inventors,
humorists, anti-bourgeoisie idealists, and renowned authors. His first collection of poetry, published in 1866, spotlighted him as an up and coming poet with great potential and particular style.

Three years later in 1869, he published a collection of twenty-two poems entitled *Fêtes Galantes*. The relatively short collection contains a variety of metered forms, which paint decadent scenes of seduction within an idealized countryside and of lover’s banter. These scenes are primarily characterized by actors from Italian *Commedia dell’arte*, a popular form of sixteenth century Italian Theatre performed by masked professional comedians. Although the collection was met with graciously mediocre and unimpressed contemporary reviews, later consideration lauded the poems as derivatively depictive of the waning days of the Second French Empire and saturated in the decorative rococo literary style.

It is worth noting that Paul Verlaine led an exceptionally turbulent life. After marrying his lover, Mathilde Maute in 1870, he joined the National Guard and shortly became a member of the Paris Commune, which failed to oust the Prussian occupation and establish a new French Government. He escaped the infamous “Bloody Week” that killed 18,000 Parisians, and went into hiding, only to return to Paris the following year. At this time Verlaine began a torridly intimate relationship with fellow French poet Arthur Rimbaud, who was 17 years old at the time. Verlaine eventually abandoned his wife and son for Rimbaud, and the two absconded to London. A year later, Verlaine shot Rimbaud, barely injuring his wrist, while engulfed in a drunken jealous lover’s rage. Verlaine was immediately arrested and imprisoned in Belgium where the incident occurred. During his incarceration
Verlaine converted to Roman Catholicism, which would later influence his work, to the sharp criticism of Rimbaud.

After departing Belgium, Verlaine continued to produce collections of poetry, mostly invoking vividly passionate nostalgia from his past life with Matilde. He then proudly spent a significant period of his life as an academic teacher in England and later in France.

Sadly, however, during Paul Verlaine’s final years, he perished within the grips of drug addiction, alcoholism (primarily absinthe), and poverty. Despite a national admiration and revival of his works in the 1890s, his drug dependent and impoverished lifestyle overshadowed his affably eccentric public appearances. He was officially entitled France’s “Prince of Poets” by his peers in 1894, two years before his death.\(^\text{21}\)

“En Sourdine”

“En Sourdine” appears towards the end of his Fêtes Galantes collection, ordered 21 out of 22, which appropriately and decidedly draws the work to a reflectively calm and affectionate sense of longingness, after a florid pastiche of deep-hearted reverie and unquenchable desire. The 22 poem collection has been insinuated by scholars to be influenced by the early eighteenth century rococo French painter Antione Watteau, who is credited for inventing the ethereal genre of

fêtes galantes through his artistic depiction of bucolic scenes and idyllic charm, most notably through the world of Italian *Commedia dell’arte.*

Verlaine’s attraction toward heavy romanticism and tradition is reflected within the form of this poem, holding itself to five short quatrains in an iambic meter. Barbara Meister describes the poem as containing an uneven number of feet, in this case 7. Although the rhyme scheme is a common a/b/a/b pattern, the placement of caesuras is varied within each line. These pauses occasionally occur due to pronunciation, such as after the second syllable in the first line (after calmes). Most often, however, a caesura follows a punctuation mark such as a comma as found in the first line of the second stanza (after âmes). The words themselves contain a kind of syllabic beauty. The use of the poetic device, assonance, creates a repetition of the vowel sound in words such as “nous,” “soufflé,” “doux,” and “roux” in the fourth stanza. Double consonants such as “calmes” and carefully selected vowel sounds also allow Verlaine to masterfully control the pacing and weight of each poetic line. Syncopated inner rhymes in the text are exploited as a device to exemplify highly evocative imagery in the verses.

Calmes dans le demi-jour  Serene in the twilight  
Que les branches hautes font,  Created by the high branches,  
Pénétrons bien notre amour  Let our love be imbued  
De ce silence profond.  With this profound silence.

---


Fondons nos âmes, nos coeurs
Et nos sens extasiés,
Parmi les vagues langueurs
Des pins et des arbusiers.

Let us blend our souls, our hearts
And our enraptured senses,
Amidst the faint languor
Of the pines and arbutus.

Ferme tes yeux à demi,
Croise tes bras sur ton sein,
Et de ton coeur endormi
Chasse à jamais tout dessein.

Half close your eyes,
Cross your arms on your breast,
And from your weary heart
Drive away forever all plans.

Laissons-nous persuader
Au souffle berceur et doux
Qui vient à tes pieds riper
Les ondes de gazon roux.

Let us surrender
To the soft and rocking breath
Which come to your feet and ripples
The waves of the russet lawn.

Et quand, solennel, le soir
Des chênes noirs tombera,
Voix de notre désespoir,
Le rossignol chantera.

And when, solemnly, the night
Shall descend from the black oaks,
The voice of our despair,
The nightingale shall sing.

Translation by Bard Suverkrop

“En Sourdine” reflects the momentary refuge of nature for lovers from worldly suffering that is displayed among the preceding love games in Verlaine’s series of fantasies, which ultimately come to a close, solitarily and disparaged within the lines “In the old lonely park and ice/Hope fled, defeated, to the black sky”, from his famous final poem of the collection, “Colloque sentimental”.24 The nightingale symbolizes disillusioned love or the coming of dawn which must end, and the serenity found in a moment of escape in the phrase, “The voice of our despair, the nightingale shall sing.”25 It is Verlaine’s permeating sense of youthful flirtations,

24 Norman R. Shapiro, One Hundred and One Poems by Paul Verlaine (Chicago, IL: University of Chicago Press, 1999), 60-2.

worldly deceptions, and erotic tensions that drew a multitude of musical composers
to set his poems to music.

Claude Debussy (1882)

Claude Debussy was a French impressionist composer who lived from 1862
to 1918. A brilliant pianist, Debussy entered the Paris Conservatory at the age of ten
to study under the most influential theorists, performers, and singers of his time.
The French literary Symbolist movement intrinsically influenced Debussy as a
composer, who preferred dissonances and untraditional intervallic harmonies.
Towards the end of his eleven year stint at the Conservatory, Debussy befriended
singer Marie-Blanche Vasnier and her husband Henri. The couple supported
Debussy emotionally and professionally for years, but most importantly they
introduced him to the poems of Paul Verlaine, which inspired him to compose his
first set of songs for voice and piano.26

In 1882, Debussy composed eleven vocal arrangements of poems, the
majority from Verlaine, including his first setting of “Clair de Lune” and “En
Sourdine.” It is generally believed that as a young man Debussy was in love with the
middle-aged Marie-Blanche Vasnier, a talented amateur singer for whom he wrote a
number of mélodies for her light, high, flexible voice. Accordingly, the songs Debussy
composed for her have a high tessitura and florid nature. He dedicated the song
cycle to her: Fêtes galantes pour Madame Vasnier.27 Although composed in 1882,

26 Edward Lockspeiser, Debussy: His Life and Mind vol. 1. (New York, NY: The
Debussy’s first version of “En Sourdine” was not published until 1944, and was therefore virtually unknown until over 60 years after it was written.

Centering around E major, “En Sourdine” begins with a two-measure syncopated pattern that continues throughout the first stanza, juxtaposed against the primarily duple feel of the vocal line. Debussy deviates from the E-major tonality with the second stanza, building tension with a triplet accompaniment pattern that delivers the highest note of the piece fittingly on the word “ecstasies.”

To emphasize the third stanza, the voice and piano perform rhythmic synchronicity throughout a four-measure descending sequence, unlike what was heard previously.

The accompaniment then transitions to a repetitive two note figure for the entirety of the fourth stanza while the vocal line simulates the “rocking breath” and “waves of the russet lawn” with a simple one-measure rise, one-measure fall pattern. The pattern repeats until the last line, which slowly transitions into the last stanza with a thickly scored piano interlude, trading measures of lilting eighth notes with rolling triplets. The first two lines of the last stanza harmonically echo the first lines of the second stanza, which recalls the emotional “joining of souls” text with the now despairing “night shall descend from the black oaks” text. Interestingly, Debussy also lifts the exact melody and harmony from the beginning of the third stanza for the last line of the final stanza and repeats the text to finish the melodic sequence, recalling the nightingale’s song once more before the accompaniment repeats the syncopated introduction for the outro.

Reynaldo Hahn (1887-1890)

Although born in Venezuela in 1874 to a German-Jewish father and a Venezuelan mother, Reynaldo Hahn lived the majority of his life in France with his eleven other siblings. A child prodigy, Hahn regularly sang arias by Jacques Offenbach while accompanying himself on the piano. Like Debussy, he entered the Paris Conservatory at the age of ten studying alongside Ravel and Cortot under the professorships of Jules Massenet, Charles Gounod and Camille Saint-Saëns. Hahn was exceptionally inspired by the poetry of Victor Hugo and Paul Verlaine, and used their poems as the texts for his first venture into composing songs with voice and piano, which were instantly popular and rocketed him into the elite artistic social circles of the time.  

Hahn’s setting of “En Sourdine” comes from a collection of seven songs written between 1887 and 1890 entitled 7 Chansons grises, which, significantly, were his first published collection of vocal works. Centering around A major, the setting begins with a dreamy atmospheric four-measure piano introduction, chromatically rising on beat two and falling on beat four to create a peaceful yet playful landscape. As opposed to Debussy, Hahn’s melodic lines are less symmetrical within the eight-bar phrasing and fall somewhat low in the voice register. The melody is even less symmetrical in the second stanza, descending over only five-and-a-half measures, which creates a tense rushing sensation as the vocal

---


line extends to its climactic note on the word “ecstasy.” Hahn deceptively returns to eight-bar phrasing in the third stanza with a lofty exchange of dialogue between the voice and piano until the last line of text, “drive away all plans forever,” where he inserts a 3/4 measure alongside a rallentando to intensify the cadence and echo the “forever” sentiment. The fourth stanza is effectively compacted into only four-and-a-half measures as Hahn is intent to hurry through the text with an ascending triplet sequence in the melody while harmonically creating tension before returning to the dreamy chromatic piano accompaniment for the final stanza. The voice once again returns to a lower register with less rhythmic intensity and finally delivers a beautiful leaping last high note from the nightingale as the piano interestingly echoes the previously heard motive of the fourth stanza, harmonically recalling the lines “let us surrender to the soft and rocking breath.”

**Gabriel Fauré (1891)**

Born in a small southern French town in 1845, Gabriel Fauré spent most of his free time at a nearby chapel that housed a harmonium. With no formal musical training, he continued to play for himself and an old blind woman who would listen and occasionally offer advice. Fauré was sent to study at the School of Classical and Religious Music in Paris. In 1861, Camille Saint-Saens took over the piano and contemporary music studies classes, introducing Fauré to the exciting modern works of Wagner, Schuman and Liszt. They developed a lifelong relationship that would influence and support Fauré’s future career endeavors.30

---

While still in school, Fauré began his venture into composing vocal works with piano. Starting in 1861, he wrote a series of songs primarily using the text of poems by well-known French Romantic writers. Over time Fauré became one of the master composers of the French art song, or *melodie*. In 1887, Fauré published a setting of “Claire de Lune,” his first work using a poem by Paul Verlaine, followed by seventeen settings of Verlaine’s poems over the course of 9 years. In 1890, Fauré was provided a vacation to Venice for himself and a group of friends. During this holiday, he conceived *Cinq Melodies de Venice* for which his setting of “En Sourdine” is the second movement out of five.\(^{31}\)

Reminiscent of Hahn’s setting of “En Sourdine,” Fauré begins his setting with a simple one-measure lilting sixteenth-note rhythmic arpeggiated pattern, ascending and descending on each beat centered in F# major. Each line of text corresponds with two measures symmetrically within the initial eight-bar phrase, and a small dotted eighth-sixteenth-note motive is placed at the end of each line. Unlike Debussy’s and Hahn’s arrangements, the word “ecstasy” is not emphasized with a high note but rather with the ending of a descending phrase. Interestingly, Fauré uses the word “mêlons” instead of “fondons” at the beginning of the second stanza. The meanings of the words, however, have similar meanings: “mêlons” means to mix with or mingle and “fondons” means to merge or melt. In the third stanza, the piano transitions into a repetitive one-beat descending sixteenth-note figure while the melody sings a two-measure sequence, emphasizing the “weak” beat words of each line with long notes: “yours” and “arms,” “breast” and heart,”

\(^{31}\) Kimball, *Song*, 180-5.
“away” and “plans.” In the fourth stanza the rhythmic motion slows down to draw out the emotion of surrender while the piano tumbles across the waves with an intensifying ascending sixteenth-note pattern. For the last stanza, Fauré augments the music along with the text to rhythmically ritard into the final cadence. He uses four measures for the first two lines of text, two measures for the third line, and finally two measures for each of the halves of the last line, extending the final stanza into a 12-bar phrase. The highest note of the piece appears on the last word “chantera” (to sing), as the piano’s arpeggiated motives evaporate into the night.

**Debussy #2 (1891-1892)**

The second setting of “En Sourdine” by Debussy, was written in 1891 and published in 1903. This later publication, entitled *Fêtes galantes I*, includes revised versions of “En Sourdine,” “Fantoches,” and “Clair de Lune” in that order. *Fêtes galantes II*, published a year later, includes three additional settings of Verlaine poems. While his initial setting of “En Sourdine” was written 9 years earlier, there are distinct similarities between the works, including the ratio of stanzas to measures of music, occasional absences of tonality, and extended syncopated piano accompaniment.³²

The setting begins with a wavering syncopated three-measure motive that is recalled later in the piece, aiding in melodic cohesion amongst untraditional harmonic modulations. To create a greater sense of tension, Debussy uses only six

---

measures to compose the entire first stanza, abandoning rhythmic pauses between lines. Although the work is written primarily in B major, the underlying chords alternate between a functional tonic chord with a suspended raised fourth and a second inversion tonic chord that aurally does not set B major as the tonic. The vocal line lies low in the register and is mostly in stepwise motion, helping to echo the “calming” and “quiet” text. The second stanza continues the syncopated piano accompaniment while the melody approaches a slight ritard, drawing out the first words of the third line of the second stanza. Interestingly, Debussy inserts a single 2/4 measure at the end of this stanza before changing to a 3/4 time signature for the third stanza. He dictates for the tempo to quicken as the piano delicately performs a leaping arpeggiated triplet motive, ascending and descending within each measure. Following a two-measure ascending triplet figure by the piano, the fourth stanza begins a slow building melody, floating underneath an unsecure harmonic progression centering around D major and seemingly functionally unrelated seventh chords. The repetition and return to D major, however, gives a sense of stability. The stanza ends on the highest note yet written within the work and begins to quietly return to the opening piano motive, providing the listener with aural bookends of similar motives. Debussy returns to a 4/4 time signature and a slower tempo in the middle of the final stanza. The melody gradually rises and falls echoing the last line from his earlier version. As the text comes to a close, the syncopated piano motive plays alone for the last four final measures.
**Eugène Lacroix (1898)**

Eugène Lacroix, a fairly obscure composer with limited biographical information available, was born in England in 1858 and moved to France at a young age. He was a member of the Industrial Society of Mulhouse and a Knight of the Legion of Honor. Lacroix was employed as an organist in Paris and performed with the longstanding Lamoureux Concerts, an orchestral concert society that performed weekly concerts of new French music from 1881, including the 1905 premier of Debussy’s *La mer*. His well-known compositional works are few, but include several works for flute and many arrangements of sacred music for organ. Lacroix’s setting of “En Sourdine” was published in 1898. Lacroix died at the age of 92 in 1950.33

Lacroix’s setting for “En Sourdine” opens with a melodically pleasing ten-measure piano introduction, the longest of the six settings. A repetitive two eighth-note descending motive sets the carefree landscape, primarily using wide leaping major sixths that eventually extend into sevenths and octaves as the vocal melody propels forward. Extending the musical stanzas further than Debussy, Hahn, and Fauré, Lacroix composed 15 measures of music to encompass the first stanza. Firmly grounded in A-flat major, the melody gradually rises to an elongated high F-flat on the word “hautes” (high). He also emphasizes the last two words of the stanza, “silence profound,” with a four measure musical extension that chromatically modulates downward through a slight rallentando, resolving back to A-flat major for the second stanza. In another fifteen-measure stanza, Lacroix

---

echoes Debussy’s and Hahn’s emphasis of the word “extasie” with a large intervallic leap and rhythmic elongation. The vocal melody is in a noticeably higher tessitura than the first stanza, creating a greater sense of passion, to reflect the text. The third stanza diminishes by half in length, with only eight measures, creating a quickened pace of text. A new accompanying piano motive evolves from the descending intervals by adding descending chord tones, with a syncopated rhythmic suspension at the end of each measure, which along with the newly hurried melody creates an emotional sense of urgency. The fifth stanza reaches a climactic moment quickly on the word “solemnly” with a high A half note. For the third and final lines of the stanza, the piano accompaniment begins a similar figure as heard in the introduction with ascending thirds instead of descending sixths. The final line ends, reaching an intensely impassioned harmonic and dynamic moment, before, in a twist of form Lacroix repeats the third stanza’s text and music. Instead of ending with the nightingale’s song, the listener is lulled back to the lover’s plea to “drive away all plans” as the opening piano motive briefly returns ending the work.

**Auguste Descarrries (1948)**

Auguste Descarrries was born near Montreal in 1896. Although he showed an immense passion for music, performing at a local church from the young age of eleven, he studied and earned a law degree. Abandoning law for music, he became the organist at St. John Baptist Church in Montreal. Descarrries won the European prize for piano at the age of 25 and moved to Paris where he lived for nine years. He presented numerous recitals and devoted himself to his work as an organist and
choirmaster in Paris and later in Canada. In 1944 he joined the faculty at the University of Montreal as their piano teacher and music history professor. He was also president of the Quebec Musicians Association and vice-president of the Diocesan Commission for liturgical singing.34

As a composer, Descarries was best known for his Canadian Rhapsody for piano and orchestra. He is also the author of a small symphony, many works for piano, mixed masses for voice, and melodiés. He published approximately 26 songs for voice and piano during his life using text from a variety of poets including his own writing. His setting of Paul Verlaine’s “En Sourdine” was the last vocal work with piano that he published ten years before his death in 1958.35

Composed much later than the other five settings, Descarries’ arrangement contains more traditional romantic constructs than his impressionistic and progressive French predecessors. The setting is the only one that begins and ends in a minor key, E minor, and there is also no piano introduction. Restricted to symmetrical eight-bar phrasing, Descarries manages to emphasize certain words by using longer notes and higher tessitura. The first word “Calmes” lingers slowly, and softly descends a fifth before quickly rising to a high G on the word “high,” similar to the effect used by Lacroix. The piano provides a soothing chordal arpeggiated eighth-note rise and fall within each measure, slowly building a thicker texture as the text continues. After a slight ritard at the end of the phrase, the accompaniment


entertains a mysterious syncopated bass line, similar to the opening of both Debussy settings, during a four-measure transition into the second stanza. A long stringendo occurs within the entire second stanza, beginning with an animando to the word “extasie” and a final slentando over the last line of text before the accompaniment chromatically descends, modulating to A major. As the vocal line gently rises and falls within the first three lines of text, the piano breaks the phrase with a two-measure figure that allows the vocalist to emphasize the last line of text, “drive away forever all plans,” in an instructed, plaintive, and mournful delivery.

The E minor tonality returns in the fourth stanza with a piano accompaniment similar to the beginning of the work. With the rises and falls of the accompaniment, Descarries musically emulates the “rocking breath” and “ripples and waves” described in the text. A two-measure transition introduces the final stanza with a legato right-hand alberti bass figure motive that gracefully accompanies a rising vocal melody that crescendos into a high and subito pianississimo on the last word halfway through the final stanza. A five-measure piano transition emotes its own reflective moment with an added caesura, then continues on to set up the last line. Descarries indicates the last line to be sung declamato and animando, a sharp contrast to the piano and pianissimo dynamic levels of the previous settings. The melodic leaping fifth motive with an ornamental sixteenth-note embellishment demonstrates the nightingale’s song. It is the most elaborate and the strongest of the six nightingale songs.
Appendix: Issues of Vocal Hygiene

Research has demonstrated that it is important for professional voice users, especially singers and teachers, to receive some type of training about the voice. However, how this should be done and what methods are most effective is still unclear. Timmermans led multiple studies to investigate this issue by examining the effectiveness of short trainings of 6 hours with an added individual counseling session, and long-term multidimensional trainings of 30 hours that included both direct and indirect approaches (Timmermans et al., 2011; Timmermans, Covelliars, Wuyts, & Van Looy, 2012; Timmermans, De Bodt, Wuyts, & Van de Heyning, 2004, 2005). Abusive habits were not eliminated by vocal hygiene training alone, which was perhaps influenced by the motivation level of the subjects. However, all of the studies found positive outcomes and emphasized the need for a well-organized voice-training program for professional voice users. In a review of vocal hygiene in singers, Timmermans et al. (2005) suggests that vocal hygiene should go beyond a list of “to-dos and not-to-dos” but rather a broader concept that includes lifestyle choices, medication guidelines, repertoire and career planning (Timmermans, Vanderwegen, et al., 2005). This section will be focused on examining various issues in vocal hygiene based on recent research.

Voice Use and Misuse

The vocal demands placed on university students are high; they sing in voice lessons, university ensembles, theater rehearsals, and solo practice sessions. In
addition to these required activities, many students participate in extracurricular singing activities such as student led ensembles and church choirs. Heavy voice use while speaking during work or social activities can also contribute to vocal fatigue or even lead to vocal injury. Many students are not aware of their own voice use and the need for periods of vocal rest and recovery. A study of students’ voice use measured the phonation time, fundamental frequency and vocal intensity using a vocal dosimeter. This small portable device is able to record data while being worn throughout the day. The study found that the most vocally demanding times for students were often outside of required singing activities and that they may be very poor judges of their own perceived vocal doses. Students’ estimates of their vocal use in various activities throughout the day were much lower than the actual results (Gaskill, 2013).

A similar study of female graduate students’ voice use and efficiency was evaluated during an opera rehearsal week. The study found that opera rehearsal played a relatively minor role in the vocal load and doses of the students. The highest levels of vocal loading and dosing were recorded outside of rehearsal during personal singing practice and teaching. Although both students in the study remained healthy, were conscious of voice use, and found time for vocal rest after fatiguing activities, both engaged in a heavy amount of talking and vocal modeling while teaching voice lessons. These teaching assistants taught 8-9 hours a week, and with fuller schedules may find it more difficult to care for their voices. Therefore it is suggested that training of voice care and use could be helpful to teaching assistants and future voice teachers (Schloneger, 2011).
It is important for singers to recognize that their singing voice and their speaking voice utilize the same instrument and therefore imperative that singers monitor their speech as well as singing. A study in the acoustic measures of the voice of student singers found that there was a significant increase in noise values (shimmer and noise-to-harmonic-ratio) in the speaking voice that was not present in the singing voice. This discrepancy highlights a possible difference between singing and speaking technique, which is a common etiology of future vocal voice problems (Donna S. Lundy, Roy, Casiano, Xue, & Evans, 2000).

An article discussing vocal hygiene programs designed by voice therapists, made recommendations to assist therapy clients in recovering and maintaining vocal health and to prevent abuse/misuse. Suggestions for a well-rounded program of vocal hygiene begins with the elimination of vocal abuse and misuse, including:

**Avoid:**

* Abusive habits such as excessive throat clearing, coughing, hard laughing, and sneezing
* Cheering, yelling, or shouting
* Habitual coughing or throat clearing
* Speaking or singing with an unnaturally breathy voice quality
* Prolonged singing at either extreme of the range
* Prolonged loud singing
* Singing while breathing is compromised by abdominal cramping, nasal congestion, or late-term pregnancy
* Glottal attacks
* Unnecessary use of decongestants or antihistamines
* Alcohol and elective medications before practice or performance
* Smoking and secondary smoke
* Exercise, which elicits the val salva response (weight lifting, upper-body building, tennis)
* Practicing or performing when the voice is horse or raspy or the chords are swollen

**Do:**
* Warm up every day, warm down after a performance or full practice session
* Sing only literature in your correct range
* Maintain correct pitch and placement in your speaking voice
* Drink 8 (10-12 ounce) glasses of water daily
* Humidify sleeping and rehearsal areas
* Exercise regularly

The frequency and intensity of behaviors such as coughing, throat clearing, laughing, and sneezing can cause a forceful meeting of the mucosa of the vocal cords which over time can increase the likelihood of developing a voice disorder.

Coughing and throat clearing require tight adduction of the vocal folds and can become habits that create as much or more mucosa than they clear. Voice therapists often suggest techniques such as “sniff then swallow", the “silent cough", or simply drinking water to replace these harmful habits. Laughing can also be harmful if it is too loud, too low, or causes other unnecessary tension of the larynx and throat muscles. Sneezing at an excessive volume causes similar problems as the vocal folds are forced to adduct harshly; however this habit can be much more difficult to alter.

Speaking habits are especially important because most of us speak much more than we sing. Singers are generally aware of their singing technique but speaking at an incorrect volume or with poor tonal placement can be damaging. In addition, speaking with a breathy tone prevents the glottis from closing properly
during the vibrating cycle. Since the glottis is physiologically programed to close, it may compensate by creating an edema or swelling to fill the empty space. Thus speaking softly, often focused in the throat, is not a good way to “save” the voice for a performance. Breathy and glottal attacks can also damage the voice and lead to voice disorders. Correcting speaking habits is best done with the help of a professional voice therapist. It is also important for singers to remember that if their speaking voice is fatigued so is the singing voice; even though it may sound fine, the same muscles are being used.

Most people are aware when they are yelling or shouting for sporting events or disciplining children and animals. However, there are many other events that cause someone to speak louder than normal and potentially strain the voice. These include talking over crowds or loud music or talking over trains, buses, planes, subways or other transportation. Any talking done at a loud volume can be potentially damaging. It is important that singers and teachers learn to be aware of their voice use while singing and talking so that they may eliminate or modify potentially abusive vocal behaviors (David, 1996).

Silent vocal chord movement, such as a voice teacher empathetically breathing and going through a student’s exercise with them silently or a singer silently “talking” through text, can also cause vocal fatigue. Findings suggest that mental stimulation of action activates the same automatic nervous responses that are required in the actual movement. These movements in themselves are not harmful but singers and teachers should be aware that such actions are not resting the voice and need to be attentive for possible vocal fatigue (Williamson, 2005).
Vocal rest is often encouraged before and after vocally demanding performances. A study assessing the voices of singers before, immediately after, and the day after an opera performance found that vocal rest the day after a performance facilitated quicker recovery (McHenry, Evans, & Powitzky, 2016). In a healthy voice, adequate recovery time is often necessary to allow the laryngeal muscles an opportunity to restore healthy function. Voice amplification while teaching or speaking in large spaces can also be effective in preventing vocal fatigue or other voice issues as well as treating professional voice users with a voice disorder (Roy et al., 2003).

**Hydration**

Proper hydration is necessary for health of the body as well as the vocal folds and is one of the most frequent recommendations of voice therapists and medical doctors. The vocal folds need adequate lubrication to maintain healthy vibration, particularly with prolonged phonation. While this may seem to be common sense, there are multiple factors that effect hydration. Suggested methods of hydration often include humidification, steam inhalation, and increased water intake in addition to the limited intake or avoidance of drying conditions such as smoke, alcohol, diuretics, antihistamines, and caffeine.

Multiple studies have proven that hydration treatments facilitate voice production by making phonation easier and that dehydrating conditions can make phonation relatively more difficult. In one such study a double-blind placebo-controlled approach was used to assess the relation between hydration level and
phonatory effort. Effort measures were found to be the greatest following the dehydration treatment and lower for the control and wet treatments. The study also found that the greatest distinction between hydration levels and effort was at higher pitch levels; phonation effort was increased when subjects were dehydrated and phonating at high pitch levels (Verdolini, Titze, & Fennell, 1994). Since singing requires a greater range of pitch levels than in normal speech, proper hydration should be a daily consideration for singers.

Caffeine is a known diuretic and singers are often advised to restrain from its use to avoid dehydrating effects. However, evidence is mixed about caffeine’s effect on body fluid balance and the vocal mucosa. One study indicated that there is not sufficient empirical evidence to support the claim that caffeine is dehydrating on the voice (Bhavsar, 2009). Another study sought to examine the effect of caffeine on the voice and despite a wide variability among subjects they reported occasional alterations in voice quality (Akhtar, Wood, Rubin, O'Flynn, & Ratcliffe, 1999). Minor voice quality changes may not be a deterrent for the general population; however, for professional voice users, particularly singers who depend on high levels of voice quality, it is a significant consideration. Therefore, singers are encouraged to eliminate or minimize caffeine intake.

**Sleep**

Although adequate sleep is recognized as being a healthy behavior, it is also commonly overlooked when discussing vocal health. The American Medical Association recognizes sleep medicine as a practiced specialty as a result of an
increase of awareness of the importance of sleep to human health. Sleep is widely understood among medical professionals to effect mood, cognition, problem solving, memory, performance, productivity, accident rates, and general health including endocrine, cardiovascular, and immune functions. Sleep is also an important part of the learning process. A number of recent studies demonstrate that for optimal learning to occur, we must not only be well rested before training, but that post training sleep is essential to consolidate newly learned skills or demonstrate improvement.

Of interest to singers is the preliminary research that indicates sleep deprivation may alter respiratory function and affect speech patterns, particularly intonation, articulation precision, and rate. Other effects of sleep deprivation include mood shifts, diminished concentration and reaction time, impaired short and long term memory, decreased logical reasoning, decreased response time, and impaired cognition. Even short-term sleep loss may result in an impaired glucose tolerance, increases in the stress hormone cortisol, and lead to decreases in growth hormones and leptin (signals hunger and satiety). Additional studies have shown that a single night of inadequate sleep (a total of four hours) diminishes the activity of natural killer cells (part of the immune system that attacks bacteria, viruses, and tumors) by more than one-fourth the next day. Long-term sleep deprivation holds consequences of a depletion of the immune system, accumulation of body fat rather than muscle, acceleration in the aging process, potential memory impairment and increased risk for depression as well as work related injuries and automobile accidents (Harvey, 2003a).
To look into the sleep patterns of singers, 56 classical singers that were associated with an opera company in a large city completed a survey. Most of the respondents reported sleeping 7.5 hours per night when not rehearsing or performing, which they considered an adequate amount of sleep. However, during times of rehearsal or performance the mean duration of reported sleep was 6 hours with 96% indicating that this was not enough sleep and there was difficulty falling asleep. Vocal consequences of poor sleep were also reported such as difficulty with breath support (86%), reduced vocal endurance/voice tiring easily (36%), huskiness/roughness to the voice (18%), and greater time needed for warm-up (8%). Reduced focus and the ability to concentrate were also reported. In addition, 62% of the surveyed singers scored a 10 or greater on the Epworth Sleepiness Scale, indicating pathological sleepiness.

There are a variety of sleep disorders that can contribute to a chronic lack of sleep and pharmaceutical, behavioral, and mechanical interventions can be used to treat sleep disturbances. It is important to consult a primary care physician to discuss problems sleeping and decide if it is necessary to see a specialist. Usually behavior treatment of sleep disorders is preferred which includes modifying the sleep environment, altering pre-sleep activities, cognitive restructuring of sleep attitudes, and training in relaxation. Singers and students need to understand that sleep deprivation jeopardizes not only their creativity, but also their basic productivity, safety, and health, and they should seek medical assistance when necessary (Harvey, 2003b).
Holistic Health

Holistic health is an approach to general wellness that considers the whole person rather than focusing on illness or specific parts of the body and may be applied effectively for voice therapy for the improvement of disordered and normal voices. The wellness continuum demonstrates all possible levels of health from premature death, no illness in the middle, to the highest possible level of health.

Holistic health is an ongoing process that requires a personal commitment to improvement. Hydration and sleep, as already discussed, are critical elements of holistic health. It is well understood that proper nutrition, exercise, and weight and stress management are also important aspects of maintaining good health. Body awareness and relaxation techniques can be useful for singers in order to prevent hypertension and there are a myriad of choices available including, but not limited to: Alexander Technique, Feldenkrais Method, Yoga, and Massage Therapy.

Alexander Technique

The Alexander Technique is a process of restoring balance, flexibility, and ease of movement. Frederick Matthias Alexander developed the techniques as a tool in alleviating breathing problems and hoarseness during public speaking (Alexander & Maisel, 1970). Alexander technique is usually taught by licensed teachers and uses a combination of verbal instruction and a light touch to guide students to release unnecessary muscular tension and recognize the sensation of proper positions while sitting, standing, and moving. There is evidence that the Alexander Technique is effective in relieving chronic back pain and many instrumentalists and vocalists report it
enables them to breathe more easily and therefore perform better (Klein, 2014). More research is needed to evaluate the effect of Alexander technique on musical performance, but it is a useful tool for musicians wishing to enhance kinesthetic awareness and reduce tension.

**Feldenkrais Method**

Developed by Moshé Feldenkrais, the Feldenkrais Method is a form of education that utilizes gentle movement and body awareness to improve physical function and promote general wellbeing. By increasing awareness of posture and habitual movements, patterns can be identified and slowly modified as needed (Feldenkrais, 1977). There are two types of lessons; Awareness Through Movement (ATM) is a guided lesson that can be done in a group setting or individually with the use of books and videos. The second type of practice is Functional Integration (FI), which involves a hands-on session with a Feldenkrais practitioner (Nelson & Blades-Zeller, 2002). Although there is not enough research to demonstrate its effectiveness, many singers have found the Feldenkrais Method instrumental in correcting posture and developing a connection to their body.

**Yoga**

Yoga is an ancient technique that is used to promote physical and mental health through postures, the regulation of breathing, and meditation and has become a popular form of exercise in today’s society (Moliterno, 2008). Multiple studies have shown that the practice of yoga can reduce perceived stress and negative feelings while lowering levels of anger, anxiety,
and depression. A recent study sought to evaluate the effectiveness of yoga practice on somatization, a term given to recurrent and multiple medical conditions that do not have a discernable cause (headaches, dizziness, chest pain, lower back pain, muscle soreness, etc.). The study found that yoga training had the potential to reduce many of the physical symptoms as well as the mental health indicators such as anxiety, depression, anger and fatigue (Yoshihara, Hiramoto, Oka, Kubo, & Sudo, 2014). Traditionally yoga is thought to integrate all aspects of one’s self (body, mind and, spirit), leading to health and wholeness and an effective method of stress management.

**Massage Therapy**

Massage therapy is a body-centered therapy that can have profound impact on the body, mind, and emotions and can be considered a valuable element of self-care. A study by Touch Research Institute suggests that massage therapy may help decrease stress and improve mental clarity. The immediate effects of a brief 10-minute massage therapy session were assessed in 100 hospital employees at a major hospital. The participants reported lower anxiety, depression, fatigue, and confusion, and great vigor following the massage therapy session. For singers, the elimination of unnecessary tension can assist in ease of phonation, breath efficiency, and tuning the resonators. Singers and students interested in finding a massage therapist should conduct a quick internet search to find massage therapists
within a certain area as well as their appropriate credentials, certifications, licenses, etc. (Deeter, 2006).

**Vocal Function Exercises and Vocal Warm-Ups**

One of the management approaches used in voice therapy that represents this holistic approach is Vocal Function Exercises (VFE). When all three subsystems (respiration, phonation, and resonance) are addressed in one exercise it is considered holistic voice therapy (Stemple, 2005). Multiple studies have shown that VFE were effective in improving voice production in adults with or without voice disorders, including trained singers (Roy et al., 2001).

An early study examined the value of Vocal Function Exercises in the practice regimen of singers. Vocal efficiency, the relationship of acoustic and aerodynamic vocal parameters that indicate whether phonation has been produced with as little effort as possible, is believed to lead to the desired vocal quality required in classical singing. The vocal function exercises in this study focused on the “therapeutic effect at the voice source by giving the laryngeal and respiratory muscles a refined, sustained isometric workout at a very soft dynamic level” (Sabol, Lee, & Stemple, 1995, p. 27). Unlike typical vocal exercises, these are not concerned with the volume or tone color necessary for public singing but instead involve the coordination of many aspects of laryngeal muscle activity and respiration as a series of related actions. The acoustic, aerodynamic, and video stroboscopic analysis of twenty graduate-level voice majors was examined on two occasions, 28 days apart. The subjects were divided into an experimental group, who performed the exercises
two times each day, with two repetitions each time and a control group. Significant positive changes in the experimental group emerged including increased phonation volumes at all pitch levels, decreased flow rates, as well as increased maximum phonation times. The study concluded that improved glottal efficiency could be acquired by performing exercises using specific vowels in isometric-isotonic contractions to create a natural response from the musculature. Vocal function exercises served as an effective model for the type of exercises to be used and do not further strain the voice.

**Exposure to Irritants and Environmental Concerns**

People are well aware of the damage cigarette smoking causes to the lungs and body in general and the destructiveness of smoking on the voice cannot be emphasized enough. Chronic use can cause the toxic chemicals in tobacco to accumulate in the body, which can damage the vocal tract, lungs, heart, and circulatory system. Environmental, second-hand tobacco smoke also causes irritation to mucous membranes, pulmonary effects, and cancer, which are all detrimental to the voice. It is also important to remember than any type of smoke, including marijuana, fireplaces, and incense, can dry out the vocal folds causing an increase in the production of mucosa (Sataloff, 2004).

Other lesser-known environmental irritants include compounds in paints, adhesives, and formaldehyde, which is present in plywood, particleboard, carpeting, upholstery, etc. These substances have been associated with mucosal irritation, allergy, and cancer. Asbestos, present in building materials, has been associated
with lung disease. Even household sprays and aerosols may have adverse effects on the voice (Sataloff, 1996). Some of these materials may be present on opera stages. A study of working conditions for professional singers onstage found a number of irritants that presented vocal issues for the performers who were exposed to them. These irritants included aromatic diisocyannates, penicillium frequentans in cork granulate, formaldehyde in cork granulate, cobalt and aluminum in pigment components, and quartz sand capable of entering the alveoli. Environmental safety concerns were expressed to the theater administrators in order to eliminate the harmful substances and thereby limit damages (Richter et al., 2002).

Other environmental factors include acoustics and humidity levels. Singers are often exposed to dry environments, especially during winter. Humidification has been found to be an effective means of decreasing the detrimental voice effects of superficial laryngeal dehydration (Levendoski, Sundarajan, & Sivasankar, 2014). Singers are encouraged to monitor humidity levels and use a humidifier when necessary, especially when sleeping and in practice spaces.

Acoustics can also greatly effect sound production in a given space. In poor acoustical conditions there is a greater risk for vocal strain during speech or singing in order to be heard; room design, surface materials, and background noise can all be contributing factors. Teachers should be aware of the acoustics in studios as well as classrooms and when possible consult with an acoustic architect or engineer, especially in the development of new buildings (Sataloff, 2010).
It may not be in a singer’s power to completely control their environment or exposure to pollutants; however, it is crucial that they are aware of possible irritants and take action if vocal changes occur.

**Medical Considerations**

**Baseline Voice Evaluations**

“Preventative medicine is always the best medicine” (Heman-Ackah, 2008, p. 467). Although singers are aware of the need to seek medical assistance when there is a problem, examination before there is an issue is not commonly thought of. Recent studies recommend strobovideolaryngoscope evaluations for singers in order to establish a “normal” baseline and by doing so laryngologists are better able to provide the best possible care (Jaworek & Sataloff, 2015).

A study by Lundy et al. investigated the incidence of laryngeal abnormalities in asymptomatic singing students. Overall, the presence of abnormal laryngeal findings was high, including: benign vocal fold lesions (8.7%), erythema (61.4%), edema (29.8%), and incomplete glottal closure (61.4%) (Lundy et al., 1999). This high incidence rate of laryngeal issues among students without any reported symptoms is surprising. Abnormal laryngeal findings do not always signify the presence of a voice disorder, but they can indicate a predysphonic condition. Therefore, it is important for students and professional singers to establish a baseline in order to be better informed about the condition of their voice and how to best care for it.
Information about a student’s vocal health is also beneficial to their singing teacher who might alter teaching strategies. An examination can help to identify a laryngeal pathology early, allowing for a higher success rate of treatment plans and recovery.

Reflux

Reflux laryngitis is common among singers due to the increased intraabdominal pressure required for breath management when singing, as well as the behaviors and stress relevant to a performing career. Although singers may deny symptoms, on closer examination the presence of gastroesophageal reflux effects such as excessive phlegm, frequent throat clearing, and sore throats are often revealed (Elias, Sataloff, Rosen, Heuer, & Spiegel, 1997). During a national convention of singing teachers, volunteers were recruited for a strobovideolaryngoscope evaluation and found there was evidence of reflux laryngitis, as well as other abnormal findings, in all of the volunteers (Heman-Ackah, Dean, & Sataloff, 2002). Everyone has the potential to experience reflux when intraabdominal pressure increases, especially the amount of abdominal pressure needed to support healthy phonation.

Laryngopharyngeal reflux (LPR) is an extraesophageal variant of gastroesophageal reflux disease (GERD) that affects the larynx and pharynx. LPR is believed to damage the larynx either directly or secondarily. Direct injury occurs when acid and pepsin come in contact with laryngeal mucosa, resulting in mucosal injury. Indirect injury can occur when irritation of the
distal esophagus by acid triggers a vagus nerve response that produces chronic cough and throat clearing that leads to trauma to the laryngeal mucosa. LPR is a pervasive disorder that may cause hoarseness, throat clearing and other symptoms that are particularly problematic in professional voice users. Singers affected by LPR typically describe difficulties such as increased tension, vocal fatigue, harder vocal onset, sore throat, metallic taste, swallowing difficulty, or throat “tickle”. Although these symptoms are common, it is possible that patients diagnosed with LPR are asymptomatic and especially lack heartburn associated with GERD. Heartburn is a symptom of severe and frequent refluxed gastric acid that enters the esophagus and damages the layers of tissue. It takes significantly less acid reflux to injure the thin tissue layers of the larynx and upper airway than it does to cause heartburn. Vocal fold trauma caused by laryngopharyngeal reflux may also play a role in the development of laryngeal pathologies, necessitating early identification of reflux and proper treatment.

Treating LPR is best done with a combination of behavior changes and possibly OTC medication or that prescribed by a doctor. Suggestions for controlling LRP through behavioral changes include: maintain a healthy body weight, elevate the head of the bed to reduce horizontal reflux flow at night, wear loose fitting clothing around the waist, eat smaller well balanced meals, avoid alcohol, caffeine, tobacco, chocolate, and mint which may relax the lower esophageal sphincter, avoid fatty or greasy foods as well as spicy or acidic foods, avoid carbonated beverages, and do not eat within three hours
of sleep. Some people find that behavioral changes alone will curb their symptoms while others may require a proton pump inhibitor (PPI) or other medication (Sataloff, 2010).

Anti-reflux surgery is a possibility as well for those who are not able to manage symptoms through behavior modification and medication. A study conducted on the success rate of surgery on patients with LPR that were professional voice users found that results were positive with 60% of patents on no reflux medication post-operatively and an additional 24% who were on less medication (Weber et al., 2014).

**Allergies**

Allergies are common in the United States, affecting about one out of every five people. An allergic reaction is an abnormal response to something an individual inhales, ingests, has contact with, or is injected with, creating symptoms from mild to severe and even fatal. Inhalant respiratory allergies are the most likely to adversely affect singers and other professional voice users. Mild allergies often go undetected and can be more incapacitating to professional voice users because of the effect on the mucosal cover layer of the vocal folds. Singers and actors who travel often may find it more difficult to identify allergens because pollinating seasons vary significantly across the United States, as do the allergens that are most problematic in each region. Work environments, such as old concert halls and rehearsal spaces, may also aggravate allergies to dust and mold because of the numerous curtains,
backstage areas and dressing rooms that are rarely cleaned thoroughly (Sataloff, 1997).

A hidden respiratory allergy might be the cause of a singer’s vocal difficulties or recurring laryngitis, dysphonia, cough, or prolonged hoarseness. Inhalant allergies are caused by sensitivity of the respiratory tract to pollens, mold spores, animal dander, or dust mites and there are two types of allergic reactions. First, the acute reaction is immediately recognized by sudden bouts of sneezing, itching, etc. after exposure to an allergen. The second type of allergic reaction occurs after prolonged, daily allergen exposure. These late phase symptoms are often less intense, but more prolonged and therefore more difficult to interpret. Symptoms may include nasal congestion, which impairs resonance, post-nasal drip covering the vocal folds, excess mucus-causing throat clearing or cough, or edema (swelling) of the vocal folds.

Antihistamines are not as effective in treating late phase symptoms and are frequently avoided by singers for their dehydrating side effect. Nasal steroid sprays are often found to be more desirable and effective. Specific allergy testing is the only way to identify an allergy as the cause of the symptoms. Once an allergy has been found, proper care can be taken such as establishing a clean environment or initiating immunotherapy (allergy shots). Immunotherapy does not have any of the drying or irritating effects that medications may have and is frequently recommended for patients with late phase respiratory allergies. Treatment strategies work best when they
are individualized for each patient; it is therefore encouraged that an allergist be consulted if a singer is concerned about ongoing symptoms and other illnesses have already been ruled out (Jackson-Menaldi, Dzul, & Holland, 2002).

**Premenstrual Voice Syndrome (PMVS)**

Many women suffer from symptoms of Premenstrual Syndrome (PMS), which can include depression, anxiety, fatigue, emotional sensitivity, and irritability as well as physical symptoms such as cramps, bloating, joint and muscle pain, and breast tenderness. Many female singers also experience a variety of difficulties related specifically to their singing during this time. Premenstrual Voice Syndrome (PMVS) can cause vocal fatigue, decrease in range, faint hoarseness, and loss of power and agility. It is believed that one-third of menstruating females experience some form of these symptoms for up to five days prior to menstruation. Vocal fold swelling, resulting in disturbances in muscle function and vibratory patterns, cause many of these symptoms. Mucosal fluids of the larynx are also significantly thicker, decreasing freedom of movement of the vocal folds.

Studies have found that singers with poor technique or abusive vocal habits may be more susceptible to experiencing the symptoms of PMVS than vocally healthy singers. Severe PMVS may indicate hormonal imbalances and singers should discuss hormone testing with their physician. Other studies have shown that the contraceptive pill has a positive effect on the symptoms of premenstrual voice strain. Singers taking the pill rated higher on voice
perception scores and mood with significantly less perceived hoarseness.

Birth control pills stabilize hormonal levels throughout the menstrual phase, decreasing the amount of vocal changes due to fluctuating hormone levels. Vocal rest and proper hydration and hygiene can also help alleviate symptoms.

Although many female singers struggle with symptoms of PMVS, studies have indicated that these symptoms may not actually affect the sound that others hear. Therefore, the reason to avoid or cancel performances during the menstrual cycle should not be based on the singer’s perception of reduced vocal quality by others, but rather based on her own physical discomfort while in performing situations (Oberlander, 2010).

**Anesthesia**

Singers need to consider the risks of anesthesia on the voice. The establishment of an artificial airway and maintenance of general anesthesia may pose risks of altering the voice mechanism postoperatively. Following an endotracheal tube intubation, the patient should be aware that a mild sore throat, rough or raspy quality to the speaking and singing voice, diminished vocal range, and increased voice breaks are common and usually diminish within 72 hours. Singers should not expect to perform for at least a week after minor surgery and could need to wait longer after more serious procedures. Prolonged alterations to the voice are also a possibility, including arytenoid dislocation, intubation granuloma, posterior glottis ulceration, and recurrent laryngeal nerve paresis. Possible considerations to
Medications and Their Effect on the Voice

It is vital that singers discuss medications and possible treatments with a medical doctor, as doctors are aware of possible side effects that are relevant to professional voice users. The effects of medication vary from person to person and the benefit of the medication may outweigh any nominal side effects. Singers and professional voice users should be aware of the possible effects so that they may make an informed decision with the help of a doctor. It is beyond the scope of this study to discuss all medications and their effect on the voice; however, some of the most common ones will be addressed.

Analgesics

Common analgesics, such as aspirin and acetaminophen, as well as non-steroidal anti-inflammatory medications such as ibuprofen, can cause platelet dysfunction that interferes with blood clotting. The result is an increased risk of vocal fold hemorrhage and therefore professional voice
users are generally discouraged from using them (Sataloff, 1995). If a singer has a reoccurring condition that makes the use of such drugs necessary on a regular basis, it is advised that they speak with a doctor to find a possible alternative.

**Antibiotics**

The use of widespread antibiotics has decreased in recent years; nevertheless many are useful in treating bacterial infections. These antibiotics may have an effect on the voice including throat dryness, an allergic reaction, or ancillary side effects that may hamper a performance. Singers with upcoming performances may want to consider other treatment options (Murry, 2007).

**Anticholinergic**

A recent study found that anticholinergic medication is a risk factor for dysphonia due to a drying effect. It is understood that vocal fold dehydration causes a decrease in mucosal wave frequency and amplitude, increasing phonation threshold pressure and thus, strain. In patients with dysphonia of unclear etiology, correlations were found with anticholinergic medications. The odds of being hoarse when taking a single anticholinergic drug were nearly twice that of a patient who was taking none, and the odds of hoarseness jumped to nearly five when a patient was taking two or more anticholinergics, suggesting an additive effect (Haft, Farquhar, Carey, & Mirza, 2015). There are many different types of anticholinergic drugs used to treat a variety of conditions, which also leads to a great variance in the
severity of side effects. Professional voice users should be aware of these possible effects before beginning treatment, and consider dehydrating drugs as a possible cause in the occurrence of dysphonia with unclear origins.

**Antidepressants**

According to Sataloff, all psychoactive medications have effects that can interfere with vocal tract physiology. Side effects have a wide range and may include: dysarthria, increased cough, increased reflux, asthma, laryngitis, bronchospasm, and drying effects. Dryness in the mouth and nasal mucosa are the most common side effects, in addition to being the greatest concern for singers (Sataloff, 1995).

**Antihistamines**

Antihistamines are commonly used to treat allergies, reflux, or motion sickness either by prescription or over the counter. Antihistamines have a drying effect on upper respiratory tract secretions and a thickening and reduction of mucosal secretions. Other side effects may include hoarseness, sore throat, voice changes, laryngitis, increased effort needed when vocalizing, or sedating effect. Virtually all antihistamines have a drying effect; however, the severity varies widely from person to person and between drugs. Many people are also unaware that antihistamine and decongestant components are part of several OTC medications such as sleep aids (Benninger & Murry, 2008).

**Decongestants**
Decongestants act as vasoconstrictors, helping to reduce secretion production by shrinking mucous membranes. Overuse of decongestants like phenylpropanolamine, found in OTC cough medicines, can have a dehydrating effect. However, some decongestants also contain expectorants, such as guaifenesin, which thin and increase secretions, counteracting the drying effect. Singers suffering from excessive mucus and postnasal drip may find these OTC medications helpful, as long as they do not contain the addition of antihistamines (Murry, 2007).

**Hormones**

Various hormone treatments can significantly affect the voice including androgens and anabolic steroids, which have been documented to lower the fundamental frequency pitch and cause coarsening of the voice. Women who are being treated for endometriosis or postmenopausal sexual dysfunction should consult their doctor about these possible side effects.

High-dose progesterone birth control pills can cause similar androgen-like changes in the voice and were historically discouraged for singers. However, low-dose contraceptives, which are most common today, have a significantly lower chance of voice changes and any perceived changes are usually reversible when medication is discontinued. There is limited research on the effects of forms of hormonal contraception on the voice other than oral contraception, such as intrauterine devices, patches, rings, and implants. Multiple studies have indicated that low-dose oral contraceptives
(OCPs) are safe for vocalists and may stabilize the singing voice (Rodney & Sataloff, 2015).

Thyroid hormone replacement therapy is also common in the treatment of hypothyroidism in women. Careful monitoring of these hormone replacements is important for professional voice users.

**Steroids**

Adrenocorticoids are known to cause side effects, which can include gastrointestinal upset and ulcers, increased appetite, mucosal drying, blurred vision, and aggravation of blood glucose levels. Nasal steroids have had few demonstrated effects on the voice; however, orally inhaled steroids have shown oral candidiasis, dysphonia, pharyngitis, hoarseness, and cough and are therefore not recommended for professional voice users unless absolutely needed (Abaza, Levy, Hawkshaw, & Sataloff, 2007).

Corticosteroids are effective for treating edema and lessening the effects of allergic reactions. However, inhaled corticosteroids can cause side effects such as loss of voice, hoarseness, throat pain, gastric irritation with possible hemorrhage, and mucosal drying. Oral inhalers can also cause inflammation, mucosal drying, dysphonia, and potential wasting of the vocalis muscle. The appropriate dose of corticosteroids is controversial and requires further study. It is recommended that singers only use corticosteroid medications if there is a pressing, professional voice commitment that is being hampered by vocal fold inflammation (Sataloff, 1995).
Reflux medications

PPIs and H2 blockers are commonly used in the treatment of reflux; however, they also have possible side effects. Documented side effects of PPIs include diarrhea, abdominal pain, nausea, dry mouth, muscle cramps, depression, dizziness, fatigue, headaches, and others. H2 blockers can also cause dryness. Even OTC antacids demonstrate significant side effects including constipation, bloating, diarrhea, and Drying effect. Singers with reflux should consider behavioral modifications and discuss medications with a physician.

Alternative and Over-the Counter Medications

A survey of singers found that 71% used therapies they considered to be alternative medicine. Unfortunately, a significant number also did not discuss these therapies with their physician or other knowledgeable practitioner. Some complimentary and alternative medicines (CAM) are beneficial while others may have no effect or may be potentially harmful. Supplements are not regulated in the United States and therefore it can be difficult to obtain information about possible side effects, interactions with other drugs, etc. Recent studies have indicated that some supplements contain chemicals that are not listed on the label and can possibly be harmful; these include but are not limited to lead, microorganisms, radioactive agents, pesticides, fumigation agents, and other plants (Sataloff, 2005).

Tea is often a recommendation as a treatment of illness because of its medicinal benefits. Although there have been numerous scientific studies regarding
the health benefits of tea, the results are wide-ranging and overall inconclusive. Another compounding factor is the fact that there are over 2,000 types of tea derived from 82 different species of C. sinensis, the plant from which tealeaves come. These many varieties make consistency between products difficult, coupled with the fact that herbal manufacturers are not required to seek FDA approval, thus warranting caution by the consumer. Some singers have avoided tea because of the caffeine content and its supposed dehydrating effects. According to current available research, low to moderate use by healthy individuals of caffeine found in tea is not detrimental to singers or singing. Although there is a wide range of opinion as to the extent of its health benefits, it is generally agreed that tea, particularly green tea, warrants a positive recommendation for consumption. When used for medicinal purposes however, the consumer should first consult with his or her health care provider (Deeter, 2014).

Vitamins, when used inappropriately, can also have adverse effects on the voice. Vitamin C is sometimes consumed in large amounts in an effort to maintain health or prevent the occurrence of a common cold. In some people a drying effect similar to that of a mild antihistamine or other adverse side effects occurs when vitamin C is taken in large doses. Vitamin E in excessive doses can have a blood-thinning effect leading to an increased risk of vocal hemorrhage (Sataloff, 1995).

There are many additional herbal medications that have negative side effects.

Here is a table of some of the more common herbal supplements:
### Table A.1. Common Herbal Supplement Side Effects

<table>
<thead>
<tr>
<th>Herbal Supplement</th>
<th>Side Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echinacea</td>
<td>Allergic response, immunosuppressive after 8-wks of use</td>
</tr>
<tr>
<td>Ephedra</td>
<td>Dehydration, cardiac events, stroke, seizures</td>
</tr>
<tr>
<td>Fennel</td>
<td>Anticoagulation activity</td>
</tr>
<tr>
<td>Garlic, ginger, Ginkgo</td>
<td>Anticoagulation activity, nausea, vomiting, restlessness</td>
</tr>
<tr>
<td>Ginseng</td>
<td>Agitation, insomnia, vaginal bleeding</td>
</tr>
<tr>
<td>Licorice root</td>
<td>Hormonal activity, hypertension, reflux</td>
</tr>
<tr>
<td>Milk thistle</td>
<td>Laxative effects</td>
</tr>
<tr>
<td>Nettles</td>
<td>Diuretic effects</td>
</tr>
<tr>
<td>Primrose</td>
<td>Anticoagulation activity</td>
</tr>
<tr>
<td>St John’s wort</td>
<td>Insomnia, gastrointestinal upset, fatigue, bloating, dizziness</td>
</tr>
<tr>
<td>Kava</td>
<td>Liver damage/failure, Hepatitis, cirrhosis, jaundice, impaired reflexes</td>
</tr>
</tbody>
</table>

#### Dealing with Illness

Most vocal disorders are caused by misuse of the voice that is not usually related to singing technique. Speech-related abuses or other vocal habits are most commonly the culprit, as previously discussed. How quickly a person experiences vocal difficulty after vocal abuse varies greatly from person to person. With the cessation of the abusive habits and proper rest any swelling usually resolves in 24-48 hours (Vaughn, 2001). Vocal fold edema--swelling--is a common bodily response to not only vocal abuse, but also illness. Despite careful monitoring of voice use and overall health, illness will still sometimes occur. Too often singers are confronted with “the show must go on” mentality or a belief that it is possible to sing through a cold or other illness. Occasionally a singer with an acute voice problem may proceed with a full performance (Mishra, Rosen, & Murry, 2000). However, these potentially dangerous philosophies should be discouraged.
Vocal symptoms of upper respiratory infections are well recognized ranging from mild roughness in sound to complete inability to speak or sing. Often the upper register is preserved and in these cases light or moderate singing may be appropriate. It is important that the singing remain easy and not be pushed or forced. Although the singer's experience of a respiratory infection is highly individual there are a few general recommendations. First, taking general care of oneself with proper hydration, rest, and reduction of voice use appropriate to the level of symptoms, is critical. Suppressing the abusiveness of coughing on the vocal folds can be achieved through non-medicated cough drops, hydration, and steam inhalation. Menthol-eucalyptus drops tend to be drying, and cough drops with an anesthetic effect that lessens the sensitivity to pain, should be avoided to prevent increased vocal trauma. Postnasal drainage can be treated with a saline nasal irrigation, throat gargle, or Guaifenesin, which may also be helpful. While absolute voice rest is rarely advocated, reducing voice use is usually a wise decision. Appropriate use of the voice for lessons, choir, and rehearsals should be discussed with a physician and voice teacher (Michael, 2012).

Robert Sataloff (2000) has found in his experience that professional voice users are rarely hypochondriacs and therefore a voice problem that hasn't resolved itself in 7-10 days should be taken seriously and may necessitate visiting a medical professional for evaluation (Sataloff, 2000).


**Treating Voice Disorders**

A voice disorder occurs when the voice loudness, pitch, or quality is outside the normal range for voice use according to age and gender. Voice changes can be heard as hoarseness, breathiness, loss of range, difficulties with vocal onset, duration, loudness, or ring in the tone, and may occur abruptly or develop slowly. Patients whose voice no longer meets their requirements for voice use are also considered to have a voice disorder, despite frequent lack of more obvious symptoms. Once a potential problem has been identified, singers should seek help as soon as possible. An otolaryngologist (ENT), who specializes in disorders of the voice, can assign a medical diagnosis and refer the patient for an evaluation and or treatment by a speech-language pathologist (SLP) and singing voice specialist (SVS). ENTs identify and definitively diagnosis vocal fold and laryngeal structure anomalies and can perform vocal fold surgery when necessary. For this reason they are often the first step in receiving care for a voice disorder (Wicklund, 2010).

The SLP is an important member of the voice care team providing assessment and evaluation of laryngeal function as well as therapeutic interventions. Voice therapy is effective in improving vocal performance in adults with functional dysphonia and other voice disorders. The SVS is often a voice teacher who can recommend therapeutic singing voice exercises and songs to help rehabilitate the injured singing voice.
References

Part I


doi:http://dx.doi.org/10.1016/S0892-1997(00)80006-5


doi:http://dx.doi.org/10.1016/j.jvoice.2010.04.005

doi:http://dx.doi.org/10.1016/j.jvoice.2011.03.001


doi:http://dx.doi.org/10.1016/j.jvoice.2010.04.008


doi:http://dx.doi.org/10.1016/j.jvoice.2013.12.009


Part II


VITA

EDUCATION

Master of Music - Voice Performance, University of Kentucky, August 2009

Bachelor of Arts - Applied Music: Voice, Transylvania University, May 2006

TEACHING EXPERIENCE

Adjunct Faculty, Bluegrass Community and Technical College Spring 2013 - present

Instructor, Changsha Education College, Changsha, China July-August 2014

Music Assistant, South Elkhorn Christian Church, Lexington KY Fall 2012 - present

Private Voice Instructor, Lexington, KY Feb. 2007 - present

Academic Tutor, Center for Academic and Tutorial Services, University of Kentucky Fall 2011 - present

PERFORMANCE EXPERIENCE

<table>
<thead>
<tr>
<th>Opera Roles</th>
<th>Performance Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antonia</td>
<td>Les contes du Hoffmann University of Kentucky Opera Theater 2015</td>
</tr>
<tr>
<td>Soprano</td>
<td>Get Stuffed Schmidt Opera Outreach Program 2010</td>
</tr>
<tr>
<td>Erneste</td>
<td>The Billy Goats Gruff Schmidt Opera Outreach Program 2008</td>
</tr>
<tr>
<td>Musetta (scenes)</td>
<td>La bohème University of Kentucky Opera Workshop 2007</td>
</tr>
<tr>
<td>Adele (scenes)</td>
<td>Die Fledermaus University of Kentucky Opera Workshop 2007</td>
</tr>
<tr>
<td>Gretel (scenes)</td>
<td>Hansel and Gretel Lexington Opera Society Opera Workshop 2005</td>
</tr>
<tr>
<td>Pamina (scenes)</td>
<td>Die Zauberflöte KIIS, Salzburg, Austria 2004</td>
</tr>
<tr>
<td>Despina (scenes)</td>
<td>Cosi fan tutte Transylvania University Opera Workshop 2004</td>
</tr>
<tr>
<td>Chorus</td>
<td>La bohème University of Kentucky Opera Theater 2010</td>
</tr>
<tr>
<td>Chorus</td>
<td>Hansel and Gretel University of Kentucky Opera Theater 2008</td>
</tr>
<tr>
<td>Chorus</td>
<td>Carmen University of Kentucky Opera Theater 2007</td>
</tr>
<tr>
<td>Chorus</td>
<td>La Traviata University of Kentucky Opera Theater 2006</td>
</tr>
</tbody>
</table>

Other Performance Experience

<table>
<thead>
<tr>
<th>Event</th>
<th>Performance Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA Recital</td>
<td>University of Kentucky Nov. 21, 2015</td>
</tr>
<tr>
<td>DMA Recital</td>
<td>University of Kentucky Sept. 08, 2013</td>
</tr>
<tr>
<td>DMA Recital</td>
<td>University of Kentucky May 2, 2014</td>
</tr>
<tr>
<td>Closing Ceremony Ensemble</td>
<td>World Equestrian Games 2010</td>
</tr>
<tr>
<td>MM Recital</td>
<td>University of Kentucky May, 2009</td>
</tr>
<tr>
<td>Handel’s Messiah (soloist)</td>
<td>Second Presbyterian Church 2007</td>
</tr>
<tr>
<td>Rutter’s Requiem (soloist)</td>
<td>Second Presbyterian Church 2004</td>
</tr>
</tbody>
</table>
LEADERSHIP EXPERIENCE/HONORS

TORA Scholarship, University of Kentucky, 2009-2013

Omicron Delta Kappa, National Leadership Honorary, Transylvania University, inducted in 2005

Delta Delta Delta National Fraternity, Transylvania University, 2002-2006
  • Vice President of Academics, 2003
  • Vice President of Chapter Development, 2004

Student Orientation Leader, Transylvania University, Fall 2003, Fall 2004

First-Year Woman-of-the-Year Award, Transylvania University, 2002-2003