Applied Psychology in the Voice Studio: A Cognitive Behavioral Approach

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Abstract

Due to the increasing number of musicians dealing with mental health issues, it may be beneficial to incorporate psychologically therapeutic practices and techniques into a musician's daily practice regimen in order to foster objective thinking and resiliency. This dissertation is designed to educated voice teachers and students on certain aspects and techniques of Cognitive Behavioral Therapy. It will cover the history and efficacy of the treatment modality, overviews of various self-guided therapeutic techniques, and suggestions for practical application. This paper endeavors to offer the voice teacher psychologically therapeutic techniques they can incorporate into their pedagogical resources.

Acknowledgements

I was 13 years old the first time I saw the band Oneword play at a small dance hall called the Circle B in Grand Island, Nebraska. Growing up in a new subdivision surrounded by cornfields, my friends and I were insulated from the kids on the other side of Highway 281 who had founded and fostered a thriving (at the time) music scene. In addition to the Circle B, the two bowling alleys in town served as perfect venues for weekly showcases of bands made of kids not much older than I was. What these bands lacked in technical proficiency was made up for in the effervescent joy of making the loudest sounds they could with their comrades. One of those bands, the legendary Oneword was the outlier.

Oneword was a band made up of four students who all attended Grand Island Senior High School. Influenced by alternative rock bands like Glassjaw, Far, Hum, and others I would come to know well, Oneword's moving, cathartic songs were full of melodic earworms that were played by meticulous and talented musicians. The lead singer of the group was only a few years older than I, yet he sang his introspective lyrics with a powerful, emotionally experienced (well, as emotionally experienced as a high school guy can be) color in his voice. Oneword's shows were well-attended and full of people who would sing the words of their songs back at them. As a 13-year-old boy the experience of watching Oneword's shows blew my mind. These guys weren't much older, yet they were technically proficient musicians who wrote engaging songs that people loved to listen to. I remember sitting in my basement listening to a CD-R copy of an EP Oneword released thinking, "I want to do this."

It all started with my first bass guitar. Bass lessons, basement shows, and skateboarding eventually turned into voice lessons, character studies and theater classes. My love of music,

initially kindled by the kinetic energy of the Midwest local music scene, had now afforded me the opportunity to play and sing on different stages throughout the country.

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Introduction

The primary objective of any voice teacher is to facilitate a student's ability to master the fine physical mechanics of their individual voices. The mastery of these physical mechanics would ideally enable a student to have a successful singing career, due to a sustainable, reliable, and scientifically sound technique of vocal production. Expert vocal scientists and pedagogues have provided voice teachers and students with a "roadmap" of how to scientifically build a healthy, sustainable singing voice. Something that isn't typically addressed during a music student's formal education is the psychological impact of studying singing and the subsequent pursuit of a career in music.

How can a young singer foster positive learning habits and self-image and learning habits while dealing with the emotional ups and downs of a career in music? How can young singers quantify personal achievement in an industry where the definition of success is so nebulous? Considering a student's "psychological entanglements" while simultaneously building a voice can be a daunting task. A pedagogical teaching style that incorporates psychologically therapeutic modalities in conjunction with scientifically sound mechanical development is of the utmost importance. Most voice teachers are not licensed therapists, but some aspects of certain therapeutic modalities can be utilized by both teacher and student to foster a positive self-image and strengthen learning habits and emotional resiliency. For instance, one tool used by some mental health workers who practice Cognitive Behavioral Therapy (CBT) is called the Daily Mood Log. It's a worksheet that asks patients to give a quick self-inventory before and after therapy sessions. Using a small worksheet or a polling application with this kind of a model, a voice teacher can gauge a student's attitude and current self-image before and after lessons. With this kind of immediate feedback, voice teachers can have empirical evidence of a student's

subjective appraisal of themselves and their ability. This may also provide teachers with an insight into whether or not a pedagogical style or method is effective for that student. Using this information, teachers may then make teaching adjustments accordingly.

Providing a student with the ability to measure their own progress using empirical standards based on facts can foster a young singer's objectivity. Using those measurements, students can have evidence of their own musical progression. With this objectivity, a student may be able to avoid the trappings of what cognitive therapists refer to as "cognitive distortions", or irrational thought patterns that are typically self-defeating. Teaching voice students about these different types of cognitive distortions can make students become self-aware of their habitual thought patterns and in turn influence practice and performance. For this sake of this paper, the therapeutic modality explored will be Cognitive Behavioral Therapy, or CBT.

A Condensed History of Cognitive Behavioral Therapy

The fundamentals aspects of Cognitive Behavioral Therapy (CBT) can be traced all the way back to ancient philosophical traditions and schools of thought, notably the school of Hellenistic philosophy known as Stoicism. Stoic philosophers believed that false beliefs could lead destructive emotions and that simple logic could be used in order to identify and discard these beliefs. In his book, *The Enchiridion*, Stoic philosopher Epictetus writes, "Men are disturbed not by things, but by the views they make of things."[1] In other words, our feelings are created and influenced by our thoughts and biases.

The present-day roots of CBT can be traced to the merging of early 20th century behavioral therapy and the more modern cognitive therapy, initially developed during the 1960s. Behaviorists John B. Watson and Rosalie Rayner's studies of classical conditioning produced groundbreaking work in 1920 with their famous "Little Albert" case that demonstrated how emotional responses could become conditioned in humans. To do this, an 11-month old boy was shown a rat while simultaneously making a sudden banging noise behind him. Repeating this sequence of events numerous times, a distinct fear reaction was established within the boy whenever the rat was presented subsequently. It was noted that the same fear reaction was persistent and generalized to other stimuli.[2]

Behavioral treatment modalities and approaches appeared as early as 1924. The efficacy of treatment of anxiety disorders was fairly high, particularly in the application of psychiatrist Joseph Wolpe's concept of systematic desensitization. The goal of systematic desensitization is to overcome behavioral avoidance by gradually exposing patients to any anxiety provoking or

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[1] Epictetus. 1983. *The Enchiridion.* Indianapolis, IN: Hackett Publishing Co.

[2] Rachman, Stanley. 2015. "The evolution of behaviour therapy and cognitive behaviour therapy." *Behaviour Research and Therapy* 64: 1-8.

phobic stimulus until that stimulus can be tolerated, a method of counterconditioning.[3] Wolpe noted that systematic desensitization was successful 90% of the time when treating phobias.[4]

Behavioral approaches were successful in treating many neurotic disorders but had low efficacy in treating depression.[5] In the 1950s and 60s, the therapeutic approaches of Aaron Beck and Albert Ellis gained popularity having evolved out of the initial ideas of therapist Alfred Adler, a pioneer in addressing cognition (or thoughts) in a psychotherapeutic context. This influence led Ellis to develop what is now known as Rational Emotive Behavior Therapy (REBT) which serves as the basis of the contemporary cognitive model. Combining philosophical ideals from Epictetus and Alfred Adler, the cardinal premise of REBT is that a person's subjective interpretation of an unfortunate event or circumstance is influenced by their personal beliefs and philosophies. These subjective perspectives can lead to irrational perceptions and emotional upset.[6]

In a 1957 journal article, Ellis states, "If human emotions largely result from thinking, then one may appreciably control one's feelings by controlling one's thoughts – or by changing the internalized sentences, or self-talk, with which one largely created the feelings in the first place."[7] In order to change this internal dialogue, REBT follows a linear model of change where an adversity is named and a person's subjective beliefs about that adversity are questioned and potentially disputed or changed.

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[3] Kazdin, Alan E. 1978. "Behavior Therapy: Evolution and Expansion." *The Counseling Psychologist* 7 (3): 34-37.

[4] Wolpe, Joseph. 1969. *The practice of behavior therapy.* New York, NY: Pergamon Press.

[5] Rachman, 4.

[6] Ellis, Albert. 2001. *Overcoming Destructive Beliefs, Feelings, and Behaviors: New Directions for Rational Emotive Behavior Therapy.* Amherst, NY: Prometheus Books.

[7] Ellis, Albert. 1957. "Rational Psychotherapy and Individual Psychology." *Journal of Individual Psychology* 13 (1): 38-44.

Employing what he referred to as "**The ABC Technique of Irrational Beliefs**," Ellis created a process in which a person can objectively analyze irrational beliefs in a three-column table.[8] A person writing down these beliefs when practicing this technique gives credence to the "behavioral" aspect of this treatment modality. First, an Activating Event **(A)** occurs which triggers our Beliefs **(B)** and subjective interpretations of the Activating Event. These beliefs and thoughts can influence how we feel, which is the Consequence **(B)** of those potentially irrational beliefs. Ellis believed that holding onto irrational beliefs and thoughts would make it impossible for a person to respond to situations in an adaptive and psychologically healthy way.[9] Replacing these beliefs with more rational attributions and reactions to Activating Events could potentially lead to a reduction in negative emotions.[10]

Albert Ellis's work went on to influence psychiatrist Aaron Beck who in the 1960s developed what is referred to as Cognitive Therapy. His new approach to treatment was outlined in the book *Depression: Causes and Treatment*, first released in 1967. With this modality, people are taught to recognize negative and irrational thoughts that cause them emotional distress. Those thoughts are then challenged by logic, reevaluated, and modified. Beck theorized that depression prone people develop what he referred to as a "negative self-schema", in that they adhere to a set of pessimistic and negative beliefs about themselves.[11]

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[8] Ellis, Albert. 1962. *Reason and Emotion in Psychotherapy.* New York: L. Stuart.

[9] McLeod, Saul. 2015. *Simply Psychology.* Accessed August 2018. https://www.simplypsychology.org/cognitive-therapy.html.

[10] Holmes, M. Kathleen. n.d. *Aaron Beck, Albert Ellis and Cognitive Psychology* . Accessed Aug 3, 2018. http://psychology.info/aaron-beck-albert-ellis-and-cognitive-psychology/.

[11] Allen, Josiah P. 2003. "A Overview of Beck's Cognitive Theory of Depression in Contemporary Literature." *Great Ideas in Personality/The SAPA Project Test.* December. Accessed August 10, 2018. http://www.personalityresearch.org/papers/allen.html.

So, what is a "schema"? In the context of Cognitive Therapy, a schema is the underlying organizational framework of the mind in which a person processes and evaluates information about the environment, themselves, and the future.[12] These schemas could be attributed to some sort of traumatic event, such as the death of a family member, exclusion from social groups, or parental neglect, abuse, overprotection, and criticism.[13] A negative self-schema could influence the way someone thinks and responds to a given situation.

In life, people confront a plethora of different challenges and situations. In doing so, a number of unbidden and spontaneous thoughts may seem to "pop" into our heads. Aaron Beck referred to these as "automatic thoughts". If a person with a negative self-schema were to experience a distressing situation, their stream of automatic thoughts may be persistently negative, potentially contributing to emotional abnormality. For instance, if someone with a negative self-schema is having trouble finishing a project, their thought stream may be: "I'm the worst writer in the world and I'm never going to get this finished. If I don't get this finished, everyone will think I'm stupid and my grades will suffer. If I flunk out of school, my parents will disown me!"

In addition to negative self-schemas, Beck noted two other mechanisms that he believed were responsible for depression: The cognitive triad and errors in information processing. The cognitive triad is made of separate forms of negative thinking, specifically negative thoughts about the self, the future, and the world around us.[14] These three worldviews manifest themselves in a depressive person's automatic thoughts. As these worldviews interact, the impact

[12] Hoermann, Simone, Corinne Zupanick, and Mark Dombeck. 2013. *Cognitive-Behavioral Theory Expanded: Schema Theory.* December 6. Accessed August 3, 2018. https://www.mentalhelp.net/articles/cognitive-behavioral-theory-expanded-schema-theory/.
[13] McLeod, Accessed August 2018
[14] Beck, Aaron. 1967. *Depression: clinical, experimental, and theoretical aspects.* New York: Harper & Row.

can disturb a person's perception and cognitive processing. To help these depressive patients, Beck developed a list of "errors in thinking" or cognitive distortions that he suggested could be contributing to a person's emotional distress. The initial 1967 list of cognitive distortions included thinking processes such as:[15]

Distortion and Description	Thought/Example
1. **Arbitrary interference**: Drawing irrational conclusions from irrelevant evidence.	Thinking you're worthless because your favorite television show was cancelled.
2. **Selective abstraction**: Focusing on a detail taken out of context and ignoring everything else.	A football player blaming himself for losing a game without considering the lack of contributions from his teammates.
3. **Magnification**: Blowing the importance of an undesirable event out of proportion.	"I switched those two words around in that first act dialogue – I'm the worst actor ever."
4. **Minimization**: Devaluing the importance of positive events.	A chef is praised by a patron for his restaurant yet sees it as trivial.
5. **Overgeneralization**: Coming to negative conclusions on the basis of a small, isolated event.	"I've never received a B- on an Organic Chemistry test before. All the others have been As! I'm so dumb."
6. **Personalization**: Taking the negative feelings of others and attributing them to yourself.	"Dad was really angry when he came home from work today. It's probably all my fault."

Beck believed that "it is just as possible to perceive a thought, focus on it, and evaluate it as it is to identify and reflect on a sensation such as pain."[16] Within the parameters of the cognitive

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[15] Beck, 234 – 236.
[16] Beck, Aaron, and Corey Newman. 2005. *Kaplan and Sadock's Comprehensive Textbook of Psychiatry, 8th Edition.* Edited by Benjamin Sadock, Virginia Sadock and Pedro Ruiz. New York: Lippincott, Williams and Wilkins.

model, by reflecting and evaluating a thought, patient and therapist can work in conjunction to empirically test the accuracy of the thought and modifying according to reality.[17]

Initially, behavioral and cognitive treatment modalities were contrasted in studies to determine which intervention was more effective. The two modalities began to merge throughout the 1980s and 1990s, due in part to British psychologist David Clark's pivotal work on the cognitive theory of panic disorders, as was American psychologist David Barlow's comparable model.[18, 19] Clark's theory postulates that panic attacks result from a catastrophic misinterpretation of the bodily sensations involved in typical anxiety responses such as shortness of breath, changes in perception, and rapid pulse. An anxious person experiencing these symptoms may misinterpret these sensations as more perilous than they really are.[20]

Combining behavioral treatment techniques for such as systematic desensitization and conditioning with the cognitive model's system of empirical evaluation, testing, and correction gave birth to "modern" cognitive behavioral therapy. In the present day, CBT is known not only as a modality, but as a catch-all term for cognitive-based interventions that have evolved from CBT's foundational principles. Therapeutic modalities such as Eye Movement Desensitization and Reprocessing (EMDR), Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT), Multimodal Therapy (MMT), and others contain a combination of cognitive and behavioral treatment principles.[21]

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[17] Knapp, Paul, and Aaron Beck. 2008. "Cognitive Therapy: Foundations, Conceptual Models, Applications and Research." *Revista Brasileira De Psiquiatria* 30 (2): 54-64.

[18] Rachman, 5.

[19] Barlow, David. 1988. *Anxiety and its disorders.* New York, NY: Guilford.

[20] Clark, David M. 1986. "A cognitive approach to panic." *Behaviour Research and Therapy* 24 (4): 461-470.

[21] Trull, Timothy. 2007. *Clinical Psychology (7th Edition).* Belmont, CA: Thomson Wadsworth.

The Efficacy of CBT

According to Hoffman et al., CBT is the most widely studied form of psychotherapy.[22] The efficacy of CBT has been reviewed and studied for numerous conditions including schizophrenia and other psychotic disorders, addiction and substance use, depression, bipolar disorder, anxiety disorders, somatoform disorders, personality disorders, insomnia, anger and aggression, general stress, chronic pain and fatigue, even criminal behaviors. In a survey of recent meta-analyses, there is strong support for CBT in the treatment of anxiety disorders, somatoform disorders, anger control problems, and general stress. Of the eleven studies reviewed, CBT showed higher response rates in 7 reviews than comparison treatment modalities.[23] Additionally, CBT has shown to be equally effective in treating obsessive-compulsive disorder and somewhat superior to drug therapies in the treatment of adult depression.[24] This fact supports the idea that depression may have a cognitive basis.

CBT has also been shown to be effective in the treatment of eating disorders and perfectionism. In 2017, a survey was conducted by the Imperial College London to study the prevalence of eating disorders in musicians, and to evaluate their relation to perfectionism, stress, anxiety, and depression. Of the 301 musicians surveyed, 32.3% of respondents reported having experienced an eating disorder.[25] This is alarming as eating disorders have the highest mortality rate of all mental illnesses.[26] Researchers posit that the increased risk for eating disorders in

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[22] Hofmann, Stefan, Anu Asnaani, Imke Vonk, Alice Sawyer, and Angela Fang. 2012. "The Efficacy of Cognitive Behavioral Therapy: A Review of Meta analyses." *Cognitive Behavioral Therapy* 36 (5): 427-440.

[23] Ibid. 1

[24] Butler, Andrew, Jason Chapman, Evan Forman, and Aaron Beck. 2006. "The empirical statis of cognitive-behavioral therapy: A review of meta-analyses." *Clinical Psychology Review* 17-31.

[25] Kapsetaki, Marianna Evangelia, and Charlie Easmon. 2017. "Eating disorders in musicians: a survey investigating self-reported eating disorders of musicians." *Eating and Weight Disorders* 1-9.

[26] Lozano, R, M Naghavi, K Foreman, S Lim, K Shubuya, V Aboyans, and ZA Memish. 2010. "Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010." *Lancet* 2095-2128.

musicians could be due to their increased levels of perfectionism.[27] The data shows that singers

were especially prone to eating disorders. One plausible reason is that there may be an

ambivalent association with a singer's body being the instrument[28] and the cultural idealization

of thinness and beauty.[29]

Any singer who suffers from an eating disorder might benefit from CBT as one review of

meta-analyses has shown that improvements with CBT were significantly larger than those for

medications in terms of binge frequency, purge frequency, and all-around eating attitudes.[30] CBT

also fared significantly better in remission response rates for bulimia nervosa compared to other

treatment modalities.[31] Treating clinical perfectionism with CBT may be beneficial as theories

suggest that targeting perfectionism may be effective in reducing symptoms across a range of

different mental disorders.[32] Recent studies have shown that CBT shows promise to be an

effective intervention in the treatment of procrastination.[33] Procrastination, ever-present in daily

life, is rarely seen as truly problematic or systemic. However, its ubiquitous presence, especially

on college campuses, can have malignant effects on personal relationships, work performance,

and overall mental well-being.[34] One theory of procrastination conceptualizes it as a failure to

exert control over emotions, thoughts, and impulses in regard to preferred standards.[35] Other

psychologists see procrastination as an avoidance behavior stemming from a well-intentioned

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[27] Kapsetaki and Easmon, 7.

[28] Ibid 7.

[29] Ibid 2.

[30] Butler, et al., 27.

[31] Hofmann et al., 433.

[32] Lloyd, Samantha, Ulrike Schmidt, Mizanur Khondoker, and Kate Tchanturia. 2015. "Can Psychological
Interventions Reduce Perfectionism? A Systematic Review and Meta-analysis." *Behavioural and Cognitive
Psychotherapy* 705-731.

[33] Karas, Dorota, and Marcantonio Spada. 2009. "Brief cognitive-behavioural coaching for procrastination: a case
series." *Coaching: An International Journal of Theory, Research and Practice* 2 (1): 44-53.

[34] Ibid, 44.

[35] Vohs, Kathleen, and Roy Baumeister. 2004. *Handbook of Self-Regulation.* New York: Guilford.

coping mechanism gone awry. Procrastination usually manifests itself when someone feels

anxiety about an important task. In order to relieve these anxious feelings, one can procrastinate

for temporary relief of symptoms. A vicious cycle begins when deadlines arrive, causing

procrastinators to feel guilt and shame. These self-defeating feelings are then avoided by putting

the task off further.[36] Counselors can make procrastinators aware of their automatic thoughts and

the avoidant behaviors associated with them by setting a hierarchy of tasks and goals. Cognitive

restructuring, CBT's process of accessing and testing irrational beliefs, may be beneficial for

procrastinators, as they typically have certain thoughts related to procrastination, leading to

negative emotional reactions that feed into said behavior.[37]

In 2007, the results of a pilot study determined that CBT can improve the treatment of

functional dysphonia.[38] Functional dysphonia is a blanket term given to patients exhibiting poor

voice quality in the absence of an anatomical or neurological condition.[39] Dysphonic patients

were divided into two cohorts, one receiving voice therapy alone with the other cohort receiving

CBT-enhanced voice therapy. The CBT-enhanced voice therapy received treatment structured by

the following principles:

1. Formulating and explaining a patient's dysphonia in terms of predisposing, precipitating,
   and maintaining factors.

2. Behavioral interventions to rid patients of these unhelpful maintaining factors.

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[36] Swanson, Ana. 2016. "The real reasons you procrastinate - and how to stop." *The Washington Post*, April 27.

[37] Talask, Gabriel, and Marcele Regine de Carvalho. 2017. "Cognitive Behavioral Based Treatment for Procrastination." *Psychology and Behavioral Science International Journal* 8 (1): 1-3.

[38] Daniilidou, Paressa, Paul Carding, Janet Wilson, Michael Drinnan, and Vincent Deary. 2007. "Cognitive Behavioral Therapy for Functional Dysphonia." *Annals of Otology, Rhinology & Laryngology* 116 (10): 717-722.

[39] Behlau, Mara, Glaucya Madazio, and Gisele Oliveira. 2015. "Functional dysphonia: strategies to improve patient outcomes." *Patient Related Outcome Measures* 243-253.

3. Cognitive interventions to identify and challenge negative thinking patterns contributing to the dysphonia.

4. Relapse prevention and coping strategies.[40]

The patients who received CBT-enhanced voice therapy reported significantly more improvement in post-treatment general health questionnaires.[41] These findings are particularly useful for singers as recent meta-analysis reported that 40.53% of classical singers and 55.15% of voice teachers report suffering from dysphonia.[42]

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[40] Ibid, 718-719

[41] Daniilidou et al, 721.

[42] Pestana, Pedro, Maria Manso, and Susana Freitas. 2017. "Prevalence of Voice Disorders in Singers: Systematic Review and Meta-Analysis." *Journal of Voice* 31 (6): 722-727.

The Prevalence of Depression and Anxiety in Musicians and University Students

In November of 2016, the BBC, online music magazine *Pitchfork*, *Billboard*, and other popular news outlets published the findings of a study conducted by the University of Westminster and Help Musicians UK, a charity that provides supports to musicians throughout their careers. In a pilot survey of 2,211 self-identifying professional musicians working in the UK music industry, 71.1% of respondents believe they had experienced incidences of anxiety and panic attacks, and 68.5% experienced incidences of depression.[43] The Office for National Statistics data indicated that between the years of 2010-13, 1 in 5 of the general population aged 16 years or older suffer from anxiety and/or depression.[44] By these measurements, the research suggests that musicians could be up to three times more likely to suffer from depression compared to the public.

The survey also reported that the majority of respondents felt underserved by available help: 52.7% of respondents found it difficult to get help and 54.8% believed there were gaps in the provision of available help.[45] The authors concluded that the preliminary findings suggested that working in, or having ambitions to work in the music industry might indeed be making musicians sick, or at least negatively contributing to their levels of mental well-being.

A second finding to emerge from this survey was that although musicians find solace in the production of music, the working conditions of forging a musical career are traumatic with the core trauma being the serious challenge of sustaining a living. The music industry contributes

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[43] Gross, Sally Anne, and George Musgrave. 2016. *Can Music Make You Sick? Music and Depression.* Part 1: Pilot Survey Report, Middlesex: University of Westminster/MusicTank.
[44] Source (accessed July 2018): ONS Measuring National Well-being: Health, 2013 (2013): http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp171766_310300.pdf ONSMeasuring National Well-being: Life in the UK, 2015 (2015): http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp171766_398059.pdf
[45] Gross, Anne, and Musgrave, 5.

to an artist's experience of anxiety and depression due to the precarious nature of the work and an inability to plan one's future because of it, the nature of being an independently contracted employee, the antisocial hours, physical and mental exhaustion, and low or often zero pay. One respondent in the survey's comment section remarked: "A plumber doesn't work for 'experience'; a doctor doesn't perform surgery for 'exposure'."[46]

Other respondents noted the difficulties of dealing with a lack of recognition for one's work, especially with the perceived notion that musical labor isn't 'real work'. Some found difficulty in the welding of music and personal identity into one's own sense of personal selfhood and the impact the lack of perceived success can have on one's self-worth.[47] Classical musicians mentioned the physical dangers of a musical career, such as repetitive strain injuries or vocal injuries suffered by singers. Instances of exploitation within the industry were rampant as well, especially related to the problems of being a woman in the music industry, from balancing work and family commitments to sexual harassment.[48]

The findings of this survey are quite troubling and do very little to bolster the resolve of the next generation of up and coming musicians. Over two-thirds of the respondents in the Help Musicians UK survey (66.2%) were between the ages of 18-35, a large chunk of that demographic within the age range of the typical university music student.[49] This particular demographic is charged with the preservation and refinement of the musical artform and must be prepared to deal with the inherent hardships in artistic endeavors. According to a recent study, those hardships are taking a heavy toll.

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[46] Ibid, 13.
[47] Ibid, 14.
[48] Ibid, 14.
[49] Ibid, 10.

In 2013, the University of Nebraska – Lincoln published a study examining the rates and characteristics of broader mental distress in university music students. In a survey of 287 music majors and minors, 52.8% of respondents reported symptoms of anxiety that interfered with their day-to-day function to a mild degree whereas 14.7% reported symptoms that interfered to a moderate/severe degree.[50] Of the 285 respondents to the survey items regarding depression, 12.98% reported having received treatment at some point in their lifetime-to-date.[51] Most of the participants in the survey (249/287) had never been treated for depression, yet 144 (50.1%) of the respondents had experienced one to four depressive symptoms during the previous 12 months that mildly interfered with their everyday function and quality of life.[52] Regarding suicide, fourteen (Pedrelli, et al. 2015)respondents (4.9% of the total sample) reported previous suicide attempts in their lifetime-to-date.[53] Similar to the findings in the Help Musicians UK survey, 56.2% of the respondents reported that making music had a positive impact on their mental health.[54]

Due to the numerous transitions and developmental challenges they face, University students as a whole are susceptible to mental distress and may risk exacerbating current psychopathology that first manifested in childhood and/or trigger its first onset.[55] Mental health disorders typically have their peak onset during young adulthood with 75% of those susceptible

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[50] Wristen, Brenda G. 2013. "Depression and Anxiety in University Music Students." *UPDATE: Applications of Research in Music Education.* (Sage Publications) 31 (2): 20-27.

[51] Ibid, 25.

[52] Ibid, 24.

[53] Ibid, 25.

[54] Ibid, 25.

[55] Pedrelli, Paola, Maren Nyer, Albert Yeung, Courtney Zulauf, and Timothy Wilens. 2015. "College Students: Mental Health Problems and Treatment Considerations." *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry* 39 (5): 503-511.

having their first onset by the age of 25.[56] The prevalence of anxiety is particularly high among

college students with approximately 11.9% of students suffering from an anxiety disorder.[57]

Another debilitating mental health problem college students struggle with is depression with

prevalence rates of 7-9%.[58]

There are many developmental factors that may contribute to these prevalence rates.

Traditional college students are young, beginning college after completing high school. The

majority of new college students have depended in large part on their parents for financial

support and do not work or work part-time. Many new college students experience potentially

stressful experiences for the first time in their lives, including work, forming romantic and/or

sexual relationships, balancing an academic workload, and living with belief systems different

from their own.[59]As these students develop their cognitive maturity, some may struggle with

adult-like responsibilities and challenges such as financial hardship, sexual identity and

expression, and substance abuse, all while dealing with personal and parental expectations.[60]

University music students face a number of different challenges in addition to the

stressors faced by all university students. Music is a highly competitive field where many

qualified, capable applicants audition for a limited number of roles and positions. A musician can

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[56] Kessler, Ronald, G. Paul Amminger, Sergio Aguilar-Gaxiola, Jordi Alonso, Sing Lee, and T. Bedirhan Ustun. 2007. "Age of onset of mental disorders: A review of recent literature." *Curr Opin Psychiatry* 20 (4): 359-364.

[57] Blanco, Carlos, Mayumi Okuda, Crystal Wright, Deborah Hasin, Mark Olfson, Bridget Grant, and Shang-Min Liu. 2008. "Mental Health of College Students and Their Non-college-attending Peers: Results from the National Epidemiologic Study on Alcohol and Related Conditions." *Archives of general psychiatry* 65 (12): 1429-1437.

[58] Eisenberg, Daniel, Justin Hunt, and Nicole Speer. 2013. "Mental health in American colleges and universities: variation across student subgroups and across campuses." *The Journal of nervous and mental disease* 60-67.

[59] Arnett, Jefferey Jensen. 2000. "Emerging adulthood: A theory of development from the late teens through the twenties." *American Psychologist* 55 (5): 469-480.

[60] Kadison, Richard, and Theresa Foy DiGeronimo. 2004. *College of the overwhelmed: The campus mental health crisis and what to do about it.* San Francisco, CA: Jossey-Bass.

sometimes feel stuck in a pervasive loop of competition, auditioning for everything from elite precollege programs, conservatories, universities, and professional positions.[61] Unfortunately, this sense of competition can make a student foster a sense of maladaptive perfectionism. Of all artistic pursuits, music depends on a high level of perfection from those hopeful of attaining success in it.[62] Developing musicians may be adding undue stress on themselves in their need to reach a self-imposed standard of musicianship.[63] This is concerning as a recent study has shown that people who are high in perfectionistic concerns tend to perceive others as dissatisfied with them and as disapproving of them. These feelings of rejection and exclusion make perfectionists vulnerable to depressive symptoms.[64]

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[61] Wristen, 21.

[62] Dews, C.L. Barney, and Martha S. Williams. 1989. "Student Musicians' Personality Styles, Stresses, and Coping Patterns." *Psychology of Music* 37-47.

[63] Wills, Geoffrey, and Gary Cooper. 1984. "Pressures on Professional Musicians." *Leadership & Organization Development Journal* 5 (4): 17-20.

[64] Sherry, Simon, Anna MacKinnon, Kristin-Lee Fossum, Martin Antony, Sherry Stewart, Dayna Sherry, Logan Nealis, and Aislin Musquash. 2013. "Perfectionism, discrepancies, and depression: Testing the perfectionism social disconnection model in a short-term, four-wave longitudinal study." *Personality and Individual Differences* 54 (6): 692-697.

Application of CBT Techniques and Skills in the Voice Studio

It is important to note that voice teachers should never assume the duties of licensed mental health professionals. Learning to sing can be emotionally strenuous. Voice teachers can be present during a student's most vulnerable moments. The CBT techniques and skills that voice teachers can employ in their studios should not take the place of true psychological intervention.

Voice teachers should be aware of the mental health resources available to their students. Typically, at the collegiate level students are informed of those resources during campus orientation. An extraordinary number of college campuses have psychiatric counseling facilities and mental health centers; the Association for University and College Counseling Center Directors (AUCCCD) reports having over 900-member universities throughout the United States, Canada, Europe, and Asia.[65]

The CBT skills and techniques that will be discussed in this document are intended to serve as a tool to foster resiliency and objective thinking in young singers. Singing is a skill that requires the coordination of finely tuned muscles, proper breath management, dramatic intention, and a knowledge of language and styles. It also requires patience. Whether it be the patience it takes to navigate through a voice change or waiting to hear back from an audition, a student with a productive, self-sustaining, resilient attitude could be less prone to undue mental distress and

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[65] Mack, Judy. 2004. "Association for University and College Counseling Center Directors." *About Us.* December. Accessed August 2018. https://www.aucccd.org/about-aucccd-new.

more adaptable to life's challenges.[66] As is true with psychotherapy, not every treatment is a

panacea. The self-guided skills and techniques within this document are meant to serve as

another educational arrow in a voice teacher's quiver and are adaptions and reiterations of

similar materials readily available online and in bookstores across the country.

Procrastination

One of the many challenges that voice teachers face is helping students who

procrastinate. At some point, every singer has procrastinated learning a piece of vocal literature.

As mentioned previously in this document, university music students have a unique set of

stressors and challenges they'll encounter during their collegiate career. Some students may have

trouble adapting to a hectic and stressful schedule of classes, rehearsals, performances, and work

obligations outside of class times. If a voice student is chronically coming to lessons

underprepared, their perceived "lack of time" is not always without merit. Other voice students

may be procrastinating for a variety of other reasons.[67]

1. **A perceived lack of reward**: Of all motivators, reward is one of the most
   powerful. Reward may come in different subjective iterations, whether it be a
   monetary award, being cast in a specific role, being hired at a specific opera
   house, critical validation, and so on. Singers who aren't feeling rewarded may
   constantly berate themselves; never giving themselves credit for the positive
   things they achieve. Voice teachers may want to stress to their students early in
   their singing careers that they must be in it for the "long game." Voice teachers
   could ask a student to define success in their own terms. This may provide useful
   insight to the motivations and goals of a young performer.

2. **The fear of failure**: Unfortunately, some people's appraisals of their self-worth is
   solely based on their accomplishments. If a singer has suffered numerous
   "failures," they may begin to believe that exerting a moderate effort and failing
   may be worse than trying at all. This may ring true to singers who have
   experienced multiple audition seasons without landing a gig. A young singer may
   overgeneralize and believe that not receiving a callback or not being hired as a

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[66] Taylor, Shelley, and Peter Gollwitzer. 1995. "Effects of Mindset on Positive Illusions." *Journal of Personality and Social Psychology* 69 (2): 213-226.

[67] This list

young artist means that they are untalented failures or unworthy of validation. This is not true. One thing is undoubtedly true – no one can fail at everything 100% of the time. It's important to teach students to adopt a process-oriented approach to their singing careers. Becoming a complete performer takes time, and therefore it takes patience. More often than not, singers have no control over the minds of the people sitting across the room in an audition. Singers do have control of how they respond in a given environment whether it be in the lesson studio, practice room, on stage, or in an audition. Some students evaluate themselves on a note-to-note basis – this can be emotionally exhausting. Voice teachers could develop a new definition of "failure," one where voice cracks and forgotten words aren't expressly encouraged but identified as educational building blocks. To quote noted voice pedagogue Steve Smith, "In lessons, only one of us is paid to listen to you, and guess what? It's not you." Singers should be encouraged to evaluate their work based on how efficiently they're following his/her artistic process. If they're adhering to their process, the fear of failure may become obsolete.

3. **The fear of success**: One common trope you hear in the entertainment media is that someone is an "overnight success". More often than not those "overnight successes" are 15 years in the making. Ben Franklin once stated, "Diligence is the mother of good luck." For a singer, it means they've put in the work and followed the process, putting them in the right place at the right time. Singers who finally fill a performance schedule after initially struggling may develop imposter syndrome should any opportunities come their way, believing that their opportunities are mere products of chance rather than hard work and resilience.[68] Afraid of being exposed as a "fraud", they convince themselves that they can't meet the expectations (imaginary or otherwise) of the people relying on them. Those singers then refuse performance opportunities in an attempt to maintain control by avoiding commitments. The fear of success and the fear of failure are really two sides of the same coin. If a voice student is diligent in their work and is proficient with their instrument, it should be no surprise when that investment in effort pays off.

4. **The fear of disapproval or criticism**: Singer's lives are under constant scrutiny from seemingly all angles, some of them not even pertaining to musicality at all. A glance at the comment section of certain YouTube videos of some singers could make anyone want to hide under a rock. Toxic commentaries on a singer's height, weight, and dress; it can seem relentless at times. Procrastination-prone singers may harbor the belief that any musical mistakes may lead to immediate and vehement rejection. The potential for rejection may feel like too heavy a burden to bear, causing a student to essentially hide under a rock. After all, if a

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[68] "Imposter syndrome" or the "imposter phenomenon" is defined by Langford and Clance as: "The psychological experience of believing that one's accomplishments came about not through genuine ability, but as a result of having been lucky, having worked harder than others, or having manipulated other people's impressions." CBT may be an effective treatment for these thoughts as cognitive restructuring to alter imposter-related thinking patterns, combined with behavioral risk-taking homework assignments may bring about change, pg. 500.

singer doesn't sing, they can't be criticized. In the world of social media where a person's every step can be criticized, it may seem difficult for teachers to foster an environment where mistakes are welcomed. Practicing and performing can be compared to other physical activities in the sense that the more you do it, the more proficient you are. Just like a personal trainer checks the form of a person lifting weights, a voice teacher is there to provide and promote the guidelines of proper "vocal form." Premier athletes are well-schooled in proper form and technique, developing and perfecting each technique with consistent, precise repetitions. A voice student with good "form" can then approach every practice room session, sight reading exercise, and performance as another "rep." The more repetitions you put in, the stronger you become. It is true that the more performance opportunities a student takes advantage of increases the likelihood of disapproval, whether it be from the audience, peers, teachers or others. It also increases the opportunities for a student to habituate to performance anxiety, experiment with different expressive gestures and articulations, and give a new "first impression." When you're a young singer, it may feel like your voice is evolving and changing every other day. This can provoke anxiety, but it can also be thrilling. Habituating, despite the potential for scrutiny and criticism, is key.

5. **Waiting for the muse:** Procrastination-prone students may feel like they need to be motivated before beginning a task like practicing, memorizing music, or performing. It is interesting how if a student is anxious about completing an unpleasant task, the muse never seems to show up. There are many "cross-contaminations" with procrastination; some voice students may be waiting for the muse because they have determined that the task provides little reward, or that because the reward isn't immediate, it isn't worth doing now. Students must be reminded that action comes first before motivation.[69] The more a voice student follows the process, the greater the chances for potential reward. If that student is rewarded in some way as a result of following that process, the process is then reinforced.

6. **Maladaptive Perfectionism:** People who are high in perfectionistic concerns tend to perceive others as dissatisfied with them and as disapproving of them. These feelings of rejection and exclusion make perfectionists vulnerable to depressive symptoms.[70] Singers who may be afraid of disapproval may develop perfectionistic tendencies in order to remedy any perceived "imperfections". There's a reason the cliché "no one is perfect" exists. Unrealistic self-imposed standards and goals can cause young singers undue harm. It's imperative for voice teachers to be honest and objective with their students about their musical development and career advisement. Students with unrealistic standards and goals may seek out real-world examples of outliers to justify their expectations of themselves. It's important to remind young voice students that regardless of "natural talent," the law of averages is one that's rarely broken. Young singers must be aware that there's a difference between setting goals and setting mental

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[69] Burns, David. 1999. *The Feeling Good Handbook.* New York, NY: Plume.
[70] Sherry et al, 697.

traps. Goals are affirming and come from a place of self-acceptance and compassion.

7. **Lack of perceived mastery**: As was stated earlier, more often than not, "overnight successes" are people who have been working diligently for years. Even the most successful, well-respected singers endured frustration, personal demons, self-doubt, and other obstacles on the way to achieving their dreams. If a singer believes that singing should be without physical and mental roadblocks, they may conclude it's not worth doing, or that they an outlier in the pantheon of successful vocalists before them. Procrastination-prone singers may not learn a vocally challenging operatic role because they perceive it to be too difficult; wasting the time they could be spending working that role into the voice. To achieve perceived mastery, students must work for it. Realistic, rational goals must be set and reinforced not only by the teacher, but also by the student themselves. To quote an often-heard maxim, "How do you get to Carnegie Hall? Practice!"

8. **Low frustration tolerance**: A number of voice students may procrastinate due to their inability to deal with frustrations, impulsively overreacting to situations that don't go their way. A music student's tolerance for frustration has a bearing on how they cope with the normal and abnormal challenges and adversities life can present. As stated earlier, university music students deal with an immense number of unique challenges. When someone feels stressed or fatigued, they are more likely to experience a lower than usual tolerance for frustration. [71] Music students with high frustration tolerances may be more likely to have a positive self-concept and are more persistent when the going gets tough.[72]

If a voice teacher has a student that chronically procrastinates, there are numerous ways of going about helping them. For instance, if a student repeatedly comes to lessons not having learned the text, notes, and rhythms of a song, teachers may consider breaking the song up into smaller separate pieces. It's important for the teacher and student to set realistic and attainable goals right at the beginning of instruction [73] These goals may vary in difficulty based on the student's level of experience. A true beginner may want to focus solely on the rhythmic content

[71] Knaus, William J. 2012. *The Cognitive Behavioral Workbook for Depression.* Oakland: New Harbinger Publicatons, Inc.

[72] Ibid, 206.

[73] Oxford Learning. 2017. *Why do students procrastinate?* September 27. Accessed August 2018. https://www.oxfordlearning.com/why-do-kids-procrastinate/.

of a song for a week, while a more experienced singer may be encouraged to memorize and perform a song in a week. It may be beneficial for teachers to devise and develop their own versions of The Anti-Procrastination Worksheet using the five-column outline from Dr. David Burns's book, *Feeling Good: The New Mood Therapy*.[74]

Using this worksheet, a student can manually break down a task step by step.[75] Teacher and student can discuss how "micro" or "macro" the task can be. If an advanced student has been putting off working with Beethoven's *An die ferne Geliebte*, the task could be divided into six separate pieces, one for each song. The individual songs themselves could then be potentially broken down into selected elements as well, such as text, melody, and rhythm. Regardless of how you choose to divide up the task, the learning goals must be realistic.

Within the first vertical column, the voice student can break down the task at hand. The second column is the student's chance to write down the predicted difficulty of the task using a 0-100% scale. For instance, if the student believes that learning "Auf dem Hügel sitz ich späend," the strophic first movement of *An die ferne Geliebte*, will be incredibly challenging, they can write 90%. Within the third column, the student can then predict their satisfaction upon completing the task, again on a 0-100% scale. The fourth and fifth columns are then the student's actual measurements of difficulty and satisfaction. Provided below are examples of completed and blank versions of a musical anti-procrastination worksheet adapted from the original Burns model.

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[74] An example of this worksheet's outline can be found on page 99 of *Feeling Good: The New Mood Therapy*. Blank variations of the same worksheet are easily found and readily available online for personal use.
[75] Burns, David D. 1981. *Feeling Good: The New Mood Therapy.* New York, NY: Penguin Books.

The Task An die ferne Geliebte	Predicted Difficulty (0-100% scale)	Predicted Satisfaction (0-100% scale)	Actual Difficulty (0-100%)	Actual Satisfaction (0-100%)
Auf dem Hügel	80%	20%	30%	90%
Wo die berge	70%	5%	15%	75%
Leichte Segler	60%	10%	5%	85%
Diese Wolken	75%	25%	20%	90%
Es kehret	90%	15%	10%	80%
Nimm see hin	85%	10%	35%	100%

The Task	Predicted Difficulty (0-100% scale)	Predicted Satisfaction (0-100% scale)	Actual Difficulty (0-100%)	Actual Satisfaction (0-100%)

An die ferne Geliebte
- Auf dem Hügel
    - Text
    - Rhythm
    - Melody
- Wo die berge
    - Text
    - Rhythm
    - Melody
- Leichte Segler
    - Text
    - Rhythm
    - Melody

The Task
- Macro
    - Micro
    - Micro
    - Micro
- Macro
    - Micro
    - Micro
    - Micro
- Macro
    - Micro
    - Micro
    - Micro

Worksheets such as these can be eye-opening for students because they provide evidence that typically contrasts perceived abilities with actual abilities. In this case, the data suggests that anxiety over one's ability is largely driving the procrastination, as the expectations are so thoroughly undermined by the actual work of following the artistic process through practice. Now, homework like this isn't going to help every procrastinator in the studio, but it may provide some students with insight into their personal reasons for procrastinating. They may discover that the measurable feelings of apprehension they once had towards completing tasks may be vastly outweighed by the actual satisfaction upon completion. Worksheets like these can provide the opportunity for voice students to practice objective thinking and organizational skills in addition to showing self-reported, empirical evidence of progress.

Perfectionism

According to Knauss, Perfectionism is "like a ball of twine with different colored threads that you can label 'high expectations,' 'fear of failure,' 'dread over rejection,' 'fear of blame,' 'anxiety,' 'procrastination,' and more."[76] Perfectionistic singers are at elevated risk of depression due to the combination of demanding and alarmist self-talk.[77] Demanding words such as "should" and "must" can cause a person to feel pressured and resentful, paradoxically leaving you unmotivated and irritated.[78] Voice students with perfectionistic tendencies may belittle themselves incessantly with their self-talk, especially after a performance. A perfectionistic singer believing that they "should" have practiced more due to a textual slip-up in performance, or that they "shouldn't" have auditioned for a specific opera company after a poor showing is

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[76] Knaus, 254.
[77] Cox, Brian, and Murray Enns. 2003. "Relative Stability of Dimensions of Perfectionism in Depression." *Canadian Journal of Behavioral Science* 35 (2): 124-132.
[78] Burns, 39.

essentially self-punishment. Perfectionistic performers will often shame and guilt themselves when they fall short of their lofty expectations of themselves.

Perfectionistic singers may also hold their peers to their lofty standards. Directing these "should statements" at others can set up a person for a lifetime of frustration. For example, a perfectionistic singer may begin to feel self-righteous and bitter in a rehearsal if a principle castmate forgets a stage direction in an opera rehearsal: "This guy should have remembered his entrance. I'm sick of his mistakes screwing up my performances. We ought to be finished with this scene by now!" Resentful feelings like this can be malignant and spread from one colleague to another. Whether the perfectionistic tendencies are directed toward the self or others, perfectionistic voice students must make changes to their expectations to approximate reality or else they run the risk of constantly being let down.[79]

If voice students are allowed to filter reality through a perfectionistic lens, they run the risk of seeing their present and future performances as either overwhelming successes or outright failures, quantifying their personal worth using the same judgmental, black-or-white thinking process.[80] Voice teachers may take note of how a young singer speaks about themselves during lessons. If a young singer is consistently using words such as "should," "ought," "must," "need," "insist," and "require," they may have demanding outlooks. To combat this outlook, something like a change of language may be beneficial. The semantics of certain words can change the way something is perceived. Granted, the effects of emotionally charged language won't be neutralized by mere word substitution, but it will provide a linguistic framework in which to build an observant, self-observant perspective. The language of a preferential outlook consists of phrases such as would "prefer," "wish," "desire," "want," "favor," "care to," "would like," and

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[79] Burns, 39.
[80] Knaus, 255.

"aspire to."[81] If a student needs a technical correction during a lesson, the correction could be suggested as part of a continuum: "That last phrase was about 70% of what I wanted in regards to breath support. What would you like to do differently this next go-round?" Language like this encourages critical objective thinking for the student and provides the voice teacher with insight into the student's technical knowledge and problem-solving skills. Objective thoughts are more accessible to reason than perfectionistic black-or-white thoughts.

There's a strange paradox in perfectionist ideals. Perfectionists long for what any reasonable person does. Who wouldn't want to achieve the ideals of certainty, control, acclaim, happiness, and comfort. Taking the achievement of these ideals as a barometer of one's self-worth is a recipe for shame. That's not to say that young singers should set "the bar" lower. There are completely reasonable, rational requirements singers can have for themselves. A young baritone may insist on finishing overdue program notes. An experienced soprano may require a certain diet to avoid gastric reflux. These are responsible, values-based demands that can be easily attained.

Voice teachers can foster their student's objective thinking habits by developing an anti-perfectionistic thinking worksheet using a technique similar to Albert Ellis's **ABC Technique of Irrational Beliefs.** Below are blank and completed examples adapted from *The Cognitive Behavioral Workbook for Depression (2nd Edition)*, by William Knaus.[82] The format of this worksheet is a 2x7 table that adheres to the original Ellis model. In the first box of the right column, the student writes down the **Activating Event**, or their negative experience. The second box down is where the student writes down their **Rational Beliefs** about the event. Beneath that box, the student is encouraged to observe the **Emotional and Behavioral Consequences for the**

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[81] Ibid, 257.
[82] This model first appears on page 261.

Rational Beliefs. The next space can show how deep a student's perfectionistic tendencies are as they record their **Irrational Perfectionistic Beliefs** and their **Emotional and Behavioral Consequences for Irrational Beliefs**. Students can practice objective thinking in the next space where they list **Disputes for Irrational Perfectionistic Beliefs**. Students can "dispute" their irrational thoughts with rational and reflective insights. The last box is meant for reflection as students can record the **Effects of the Disputes**.

The benefit of a self-guided worksheet like this is that it encourages a student to analyze their thoughts objectively. Young voice students who are particularly hard on themselves may gain insight into how their perfectionism reinforces depressive and demanding thought patterns. Just like learning to navigate the passaggio, objective thinking takes practice. Students can find a plethora of CBT "homework" using a quick internet search, providing them with the practice tools they need at the click of a button. Again, this CBT "homework" isn't meant to serve as a therapeutic intervention for a student in crisis, but as self-guided skill development. The following is Knause's self-guided skill development tool; with sample responses in the right-hand column. A clean copy is also included for those readers who would copy it for personal use.

The ABCs of Perfectionistic Beliefs

Activating Event	
Rational Beliefs	
Emotional and Behavioral Consequences for the Rational Beliefs	
Irrational Perfectionist Beliefs	
Emotional and Behavioral Consequences for the Irrational Perfectionistic Beliefs	
Disputes for Irrational Perfectionistic Beliefs	
Effects of the Disputes	

Figure 1. William Knause's anti-perfectionistic thinking worksheet (after Ellis): **The ABCs of Perfectionistic Beliefs.** The original model/table appears on page 261 of *The Cognitive Behavioral Workbook for Depression (2nd Edition)*.

The ABCs of Perfectionistic Beliefs

Activating Event	I had a really rough callback at an audition.
Rational Beliefs	I would hope to have another chance to show them what I can do.
Emotional and Behavioral Consequences for the Rational Beliefs	Disappointment. Work to better prepare myself for the next opportunity.
Irrational Perfectionist Beliefs	I should have had those asides memorized and picked a different vocal color. I'm such a train wreck.
Emotional and Behavioral Consequences for the Irrational Perfectionistic Beliefs	Bitterness. Resentment. I want to curl up in a little ball and hide from the world.
Disputes for Irrational Perfectionistic Beliefs	I'm choosing to accept myself as I am regardless of any perceived faults. This allows me the opportunity to improve day by day. I am my biggest advocate.
Effects of the Disputes	I'm still frustrated about the callback, but I'm feeling more at peace with myself. Every day is a clean slate.

Figure 2. Knause's **ABCs of Perfectionistic Beliefs**, with sample responses on the right.

Redefining Success and Observing Mental Traps

In a capitalistic, commercially driven society, success is typically measured monetarily. By that metric, the most "successful" professional musicians operate as independent contractors, moving from gig to gig. For singers at the beginning of professional careers, those gigs can be few and far between. Young voice students in the middle of their musical training may not be mentally or vocally mature enough to pursue a professional career, let alone bear the financial cost of pursuing opportunities. The cumulative costs of transportation, voice lessons, application fees, membership dues, and recording fees can incur a heavy financial burden.

The odds are especially stacked against university students. The typical college student borrows the majority of their total educational costs due to increasing tuition rates and decreasing levels of financial aid.[83] Two thirds of college students report having major concerns when it comes to paying for college.[84] These financial stressors can cause struggling students to drop out of college altogether.[85] With the stressors created by financial difficulties compounding the mental and physical stressors of vocal development, music students must redefine their personal metric of success.

Students can redefine success through setting achievable personal goals. Voice teachers and students must set realistic goals based on a student's level of ability. It's important for voice teachers to be aware of their student's "conception of ability" – their belief about the nature of ability and the role it plays in achievement.[86] A student who struggles vocally may believe that

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[83] Joo, So-Hyun, Dorothy Burband, and John Grable. 2008-2009. "The Academic Impact of Financial Stres of College Students." *J. College Student Retention* 10 (3): 287-305.

[84] Pryor, John, Sylvia Hurtado, Jessica Korn, Victor Saenz, José Luis Santos, and William Korn. 2006. *The American Freshman.* Los Angeles: Higher Education Research Institute.

[85] Burd, Stephen. 2004. "Colleges Permit Too Many Needy Students to Drop Out, Says Report on Gradiation Rates." *The Chronicle of Higher Education*, June 4: A14.

[86] Schunk, Dale. 1990. "Goal Setting and Self-Efficacy During Self-Regulated Learning." *Educational Psychologist* 25 (1): 71-86.

their musical ability is fixed, global, and stable (fixed mindset), pre-emptively putting a ceiling on their potential. It would benefit voice teachers to hold an incremental view of ability, insisting that ability (a growth mindset) is comprised of a number of individual skills and increases with experience.[87, 88] A student's conception of ability can affect their personal goal setting and self-efficacy, making it paramount that reasonable and achievable goals are chosen through objective analysis and appraisal.[89]

One way a voice teacher could gauge their student's perceived ability is to track goal progress via student self-assessment. This self-assessment consists of a number of reflective questions the student could quickly filled out before and after a voice lesson. An assessment like this can give a voice teacher instant information into their student's practice habits, self-concept, and overall well-being. Questions 8-10 can also provide insight into how effective the voice teacher's instruction is. If a voice teacher were to encounter a student that consistently provides lower "belief" numbers for those questions, a discussion with the student regarding teaching styles may be warranted.

Lower numbered answers for these questions don't necessarily reflect a lack of teacher pedagogical ability. Every once in a while, voice teachers will encounter a discrepancy between teaching styles and learning styles. Voice teachers may want to take the results of this assessment as an opportunity for self-reflection. Hopefully, teacher and student can collaborate on how to make lesson times more effective and beneficial, especially at an institution that doesn't permit a student to change voice studios. Very few voice teachers are perfect fits for 100% of voice

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[87] Dweck, Carol. 1986. "Motivational processes affecting learning." *American Psychologist* 41: 1040-1048.

[88] Dweck, Carol, and Ellen Leggett. 1988. "A social-cognitive approach to motivation and personality." *Psychological Review* 95 (2): 256-273.

[89] Wood , Robert, and Albert Bandura. 1989. "Impact of Conceptions of Ability on Self-Regulator Mechanisms and Complex Decision Making." *Journal of Personality and Social Psychology* 56 (3): 407-415.

students. They can only do their best to impart their vocal wisdom and experience in a relatable and compassionate manner. Vocal development and progression can feel stagnant at times and assessments like this can provide students with the opportunity to observe musical growth and goal attainment through self-reported empirical measurements.

Voice Lesson Self-Assessment

Please answer each question choosing a number between 1-10.

1=**hardly believe** 10=**strongly believe**

1. I'm confident in my preparation for today's lesson	
2. I'm in a good place vocally.	
3. I've made incremental progress towards my personal goal.	
4. On a scale of 1-10, how close are you to achieving that goal?	
5. I can easily make objective observations about my singing.	
6. I feel pretty good, man.	
7. I feel like I'm getting better when practicing.	
8. I'm able to understand the technical things discussed in lessons.	
9. The things discussed in the lesson were communicated effectively.	
10. I feel like I've improved after this lesson.	

Singers may also benefit from another method of self-assessment developed by psychiatrist David Burns – the Daily Mood Log.[90] This is a three-column analysis with the first column being the space to record negative "automatic thoughts". Negative automatic thoughts are the spontaneous thoughts that seem to "pop" into our heads when stressed or faced with adversity. The second column is where singers can record their "cognitive distortions". Cognitive distortions are categorizable irrational thought patterns that are typically self-defeating. Aaron Beck first proposed the theory of cognitive distortions in 1967. In the 1980s, David Burns popularized the theory, giving the distortions common names and providing examples. The third column is where the student can write a rational response to the irrational thought. In practice, singers should record a value of how strongly they believe the distortion using a 0-100% scale. Upon analyzing the irrational thought, the student may notice that it fits under one or more of the fifteen categories of distortions. This may affect how strongly they believe the initial automatic thought. They can then record how strongly they believe the initial thought after objective analysis. Below is a list of the fifteen most common cognitive distortions and logical fallacies adapted for singers. Included are examples of those distortions in practice within a musician's context.[91]

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[90] The original template for the David Burns' Daily Mood Log appeared in *The Feeling Good Handbook*, 1989.
[91] This list is originally adapted from two sources: David Burns' *Feeling Good: The New Mood Therapy* (1981) and Aaron Beck's *Depression: clinical, experimental, and theoretical aspects* (1967). More information on cognitive distortions is readily availible online via search engines.

Distortion and Description	Thought/Example
1. **All-or-Nothing Thinking**: This line of thinking sorts everything in definitive black-or-white categories without any shades of grey in between. If it isn't one thing, it's the other. This is especially prevalent in perfectionistic thinking.	"I forgot a couple of words during the third song in *An die ferne Geliebte* – it ruined the whole performance!"
2. **Overgeneralization**: This is seeing an isolated event as a never-ending pattern of defeat by using words such as "always" or "never" when thinking about it.	"My singing technique doesn't matter at all, I never get cast in shows." "I'm always going to crack on an F#!"
3. **Mental Filter**: This distortion involves dwelling on a single negative detail in a way that poisons the rest of the well, like a drop of ink in a beaker of water.	"I got an incredible review in OperaNews and the Times, but that guy online said I sounded 'timid' and 'shrill'."
4. **Discounting the Positive**: Any positive experiences and happenings are discarded by insisting that they "don't count", setting one up to feel inadequate and insufficient.	"Like everyone else, I got into Brevard, Crested Butte, and Ravinia, but apparently Aspen doesn't want me."
5. **Jumping to Conclusions**: Magical thinking where you interpret things negatively with no facts to support your conclusions. Arbitrary mind-reading and fortune-telling.	"They didn't smile at me when I walked into the room for the audition. They must have hated my dress and thought I sounded horrible. They'll never let me sing for them again!"

6. **Magnification** : Thoughts of this type exaggerate the importance of personal problems and shortcomings while minimizing the importance of desirable qualities.	"Yeah, the aria felt pretty good, but that last high A in the cadenza was awful."
7. **Emotional Reasoning**: This line of thinking assumes that negative emotions reflect the way things really are.	"I feel so bad after that lesson. I must be a terrible singer."
8. **"Should" statements:** These are statements one makes to oneself about what they "should", "ought" to, or "must" be doing. Unmet personal expectations can be a breeding ground for shame. This can also be applied to personal expectations of others, which can lead to resentment.	"I should at least be at the Ryan Center by now! I should have practiced way harder." "Of course, Charlie would screw up that melisma in the Palestrina. He knew the stakes were high for this performance! He ought to have come to more rehearsals!"
9. **Labeling and Mislabeling**: This is most extreme form of overgeneralization listed previously. These are thoughts in which we assign certain evaluative judgements to ourselves and others based on a single instance.	"The Maestro is an arrogant S.O.B.; he didn't even thank me for bringing him coffee."
10. **Personalization**: These thoughts involve someone taking everything personally and/or self-blaming with absolutely no logical reasoning.	"My voice teacher's energy was really low today. I must have sung so poorly."

1. **The Control Fallacy**: This can manifest as two separate, but similar beliefs. One is the belief that we're in complete control of ourselves and our surroundings, making it *our* responsibility for the feelings of those around us. The second belief is that we have no control over anything and victims of a predetermined fate. Two sides of the same coin.	"The audience didn't laugh at my joke onstage. Was it something I did?" "It's not my fault that my music isn't memorized – my professors gave us all this theory homework."
2. **The Fairness Fallacy**: This fallacy can make us resentful because what is perceived as fair is subjective. Going through life and measuring situations by their "fairness" can cause a person to feel or behave badly due to those biases. A classic trope of parenthood is telling a child, "Life isn't fair." Things will not always work out in our favor.	"Amber has been cast in two roles this season. I know I'm a better singer than she is! What's up with that? Don't they want to spread the wealth?"
3. **The Fallacy of Change**: A distortion that involves us expecting others to make changes. This is usually accompanied by the concomitant belief that personal happiness and success rests on other people, leading to thought that the only way for someone to get what they want is by forcing others to change.	"If I keep telling my castmate to stop doing the annoying things he does during our duet, I could be a better performer overall."
4. **Perfectionism**: The idea that one must always be right, correct, or on target. For musicians, this may mean always playing or singing well. In this line of thinking, the idea that one is wrong or not performing to the best of one's ability is absolutely unacceptable. The concept of "musical beauty" may also be distorted.	"My French diction is absolute garbage on that Fauré piece and I can't sing it with the right color. If I'm not going to do it right, I shouldn't do it at all."
5. **The "Heaven's Reward" Fallacy**: This manifests as the belief that one's hard work, emotional/physical suffering, and personal struggle will result in a just and timely reward.	"I've been in music school for almost a decade. The audition panel has no choice but to hire me."

Automatic Thoughts	**Distortions**	**Rational Thoughts**
Write down your distressing automatic thought. On a scale of 0-100%, how strongly do you believe in this thought?	Really look at your distressing thought. Do you notice any distortions in it? Which one's?	Substitute a more realistic thought here. How strongly do you believe your initial thought?

Psychiatric Medications and their Effects on the Voice

The singing voice is a constantly changing instrument that can be affected by even the smallest changes in environment, climate, and biochemistry. The vocal mechanism can be considered a holistic or comprehensive instrument, as it's connected to the other parts of the body via the neural, muscular, and circulatory system. Because of this, certain medications singers take to maintain an everyday biological and mental "homeostasis" may have substantial effects on their voices, even if the medication's primary function is to serve a specific part or system within the body. Medications such as antidepressants, oral contraceptives, anti-inflammatories, antibiotics, mucokinetics, and antihistamines can be prescribed as a routine medication to be used by a person every day. Some over-the-counter medications can also function as routine medications. Singers should not take these routine medications for granted as they may have unforeseen detrimental effects on their instrument.

Medications used to treat mental illnesses can have interesting effects on singer's voices. There are six main types of psychiatric medications: antidepressants, antipsychotics (used to treat schizophrenia and psychotic disorders), depressants (sedatives and hypnotics), anxiolytics (for anxiety disorders), mood stabilizers, and stimulants. Of all the psychiatric medications prescribed, the most common are antidepressants. Antidepressants are drugs that are used for the treatment of a variety of psychiatric disorders such as major depressive disorders, eating disorders, chronic and neuropathic pain, obsessive compulsive disorder, and anxiety disorders. They've also been used to treat issues such as snoring, menstrual cramps, sleep disorders, attention-deficit hyperactivity disorder, and certain sleep disorders. Of all the different subsets of antidepressant medications, there are four most commonly prescribed: selective serotonin

reuptake inhibitors (SSRIs), atypical antidepressants, tricyclic antidepressants and monoamine

oxidase inhibitors (MAOIs).[92]

Selective Serotonin Reuptake Inhibitors function to increase the levels of serotonin in the

brain. Serotonin is a chemical found within the human body that serves to carry signals along

and for the sake of these drugs, *in between* nerve synapses.[93] A nerve synapse is a small junction

between two nerve cells - like two bus stops with a small gap between them. Some researchers

have theorized that serotonin is the chemical vital in maintaining a balanced mood. According to

this hypothesis, serotonin deficiencies, or "chemical imbalances", lead to mental illnesses.

Even though the exact mechanism of SSRIs is unknown, it is believed that they increase

the cellular level of serotonin by limiting its reabsorption in the presynaptic cell which increases

the level available to bind to the postsynaptic receptor.[94] In theory, these drugs serve to ensure

that this "happiness" molecule doesn't go "down the wrong pipe" while at the same time, making

it more available for the "right pipe." This theory is not without controversy.

Contemporary research has failed to confirm any serotonergic lesions in any mental

disorder and has in fact provided significant counter-evidence to the explanation of a simple

neurotransmitter deficiency.[95] In other words, researchers are having trouble finding consistent

chemical biomarkers in the brain that could support the "chemical imbalance" theory. According

Dr. Joseph Glenmullen, instructor of psychiatry at the Harvard Medical School, "A serotonin

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[92] Smith, Melinda, Lawrence Robinson, and Jeanne Segal. 2018. *Antidepressant Medication: What You Need To Know About Depression Medication.* September. Accessed November 10, 2018. https://www.helpguide.org/articles/depression/antidepressant-medication.htm?pdf=true.

[93] Mayo Clinic Staff. 2018. *Selective serotonin reuptake inhibitors.* May 17. Accessed August 16, 2018. https://www.mayoclinic.org/diseases-conditions/depression/in-depth/ssris/art-20044825.

[94] Bhandari, Smitha. 2017. *How Different Antidepressants Work.* June 23. Accessed August 2019. https://www.webmd.com/depression/how-different-antidepressants-work#.

[95] Lacasse, Jeffery, and Jonathan Leo. 2015. "Serotonin and Depression: A Disconnect between the Advertisements and the Scientific Literature." *PLoS Medicine* 2 (12): 1211-1216.

deficiency for depression has not been found."[96] Stanford psychiatrist Dr. David Burns, winner

of the A.E. Bennett Award given by the Society for Biological Psychiatry for his research on

serotonin metabolism, was asked about this theory:

> I spent the first several years of my career doing full-time research
> on brain serotonin metabolism, but I never saw any convincing
> evidence that any psychiatric disorder, including depression,
> results from a deficiency of brain serotonin. In fact, we cannot
> measure brain serotonin levels in living human beings so there is
> no way to test this theory. Some neuroscientists would question
> whether the theory is even viable, since the brain does not function
> in this way, as a hydraulic system.[97, 98]

Taking this into account, singers must keep this in mind: if an SSRI has been prescribed to a

singer and they feel positive benefits, ***then it works***. Even though the research doesn't support

the "serotonin deficiency" theory, millions of people have been helped by commonly prescribed

SSRIs such as Prozac, Lexapro, Celexa, Paxil, and Zoloft. Singers should be aware that these

drugs have been reported to increase coughing and gastroesophageal reflux. These drugs have

also been reported to have a drying effect on vocal fold tissues and mucosal membranes, which

can lead to hoarseness, soreness, vocal changes or laryngitis, leaving the performer susceptible to

injuries such as nodules. In rare occasions, asthma, laryngitis, bronchial spasms, sputum

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[96] Glenmullen, John. 2001. *Prozac Backlash: Overcoming the Dangers of Prozac, Zoloft, Paxil, and Other Antidepressants with Safe, Effective Alternatives.* New York: Simon and Schuster.

[97] Lacasse, Jeffrey, and Tomi Gomroy. 2003. "Is graduate social work education promoting a critical approach to mental health practice?" *Journal of Social Work Education* 39 (3): 383-408.

[98] For more information on this research, see: Mendels, Joe, James Stinnet, David Burns, and Alan Frazer. 1975. "Amine Precursors and Depression." *Archive of General Psychiatry* 32 (1): 22-30.

increase, muscle spasms, dyskinesia, parkinsonism, and reduced blood clotting may occur.[99, 100, 101]

Atypical antidepressants function to ease symptoms by affecting the neurotransmitters used to communicate between brain cells. Atypical antidepressants are prescribed to patients that have inadequate responses or intolerable side-effects from first-line treatment with SSRIs.[102] These medications are designed to act on serotonin in addition to other neurotransmitters such as dopamine and norepinephrine. For example, the atypical antidepressant Wellbutrin blocks the reabsorption of both norepinephrine and dopamine.[103] On the other side of the coin, the common atypical antidepressants Cymbalta, Effexor, and Remeron affect both norepinephrine and serotonin.[104] Singers may want to take note that the most common side-effects reported with these medications are pharyngitis, nausea, fatigue, increased risk of seizure, headaches, weight gain, blurred vision, muscle spasms, and a drying effect on mucosal membranes.[105, 106, 107]

Tricyclic antidepressants are chemical compounds that have three rings of atoms in their chemical structure. These drugs were developed in the early 1950s during the initial birth of psychopharmacology. In the present day, they serve as another option to patients that have

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[99] National Center for Voice and Speech - University of Iowa. 2014. *Rx and your voice - Voice Academy.* Accessed 21 2018, August . https://uiowa.edu/voice-academy/rx-and-your-voice.

[100] Leo, Raphael. 2001. *Psychiatric Times.* May 1. Accessed August 21, 2018. http://www.psychiatrictimes.com/geriatric-psychiatry/movement-disturbances-associated-ssris.

[101] Bottlender, R, P Dobmeier, and HJ Möller. 1998. "The effect of selective serotonin-reuptake inhibitors in blood coagulation." *Fortschritte der Neurologie - Psychiatrie* 66 (1): 32-35.

[102] Rush, A. John, Madhukar Trivedi, Stephen Wisniewski, Johnathan Stewart, Andrew Nierenberg, Micahel Thase, Louise Ritz, et al. 2006. "Bupropion-SR, Sertraline, or Venlafaxine-XR after Failure of SSRIs for Depression." *New England Journal of Medicine* 354: 1231-1242.

[103] Bhandari, 2017.

[104] Ibid, "Reuptake Inhibitors: SSRIs, SNRIs, and NDRIs."

[105] National Center for Voice and Speech - University of Iowa, 2014.

[106] Ogbru, Omudhome. 2018. *RxList - Effexor.* March 16. Accessed August 22, 2018. https://www.rxlist.com/effexor-side-effects-drug-center.htm.

[107] Cunha, John. 2017. *RxList - Cymbalta.* March 14. Accessed August 22, 2018. https://www.rxlist.com/cymbalta-side-effects-drug-center.htm.

inadequate responses or intolerable side-effects from first-line treatment with SSRIs and/or bad experiences with atypical antidepressants. The majority of tricyclic antidepressants act in the same way Cymbalta, Effexor, and Remeron does as serotonin-norepinephrine reuptake inhibitors as it blocks the serotonin and norepinephrine transporter. This serves to ensure that again, these "happiness" molecules don't go "down the wrong pipe" while at the same time, making more available for the "right pipe". The side-effects of these drugs are related to their antiquated chemical properties and the way they bind to certain molecules in the brain. Singers may want to note that that tricyclic antidepressants may affect muscle coordination, including within the vocal mechanism. Slurred and slowed speech has been observed along with a drying effect on mucosal membranes that can lead to hoarseness and other vocal injuries. Other side effects include blurry vision, urinary retention, cognitive/memory impairment, anhedonia (inability to feel pleasure), sexual dysfunction, irregular heart rhythms, and muscle twitches.[108, 109, 110, 111] In rare cases, rhabdomyolysis (muscle tissue death) has also been reported with these antidepressants.[112]

Monoamine oxidase inhibitors (MAOIs) are antidepressants that are usually administered as a "last-ditch effort" when SSRIs, atypical, and tricyclic antidepressants aren't having the desired effect. The biochemistry of MAOIs is a bit more complicated than the other three "traditional" antidepressants. Within the human brain, there's an enzyme called monoamine oxidase that removes the neurotransmitters serotonin, norepinephrine, and dopamine, the

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[108] National Center for Voice and Speech - University of Iowa, 2014.

[109] Ogbru, Annette. n.d. *RxList - Tricyclic Antidepressants.* Accessed August 22, 2018.
    https://www.rxlist.com/tricyclic_antidepressants_tcas/drugs-condition.html

[110] Biringer, Eva, Arvid Rongve, and Anders Lund. 2009. "A Reivew of Modern Antidepressants' Effects on Neurocognitive Function." *Current Psychiatry Review* 5 (3): 1-11.

[111] Mayo Clinic Staff. 2016. *Tricyclic antidepressants and tetracyclic antidepressants.* June 28. Accessed August 22, 2018. https://www.mayoclinic.org/diseases-conditions/depression/in-depth/antidepressants/art-20046983.

[112] Chabria, Shiven. 2006. "Rhabdomyolysis: a manifestation of cyclobenzaprine toxicity." *Journal of Occupational Medicine and Toxicology* (Published online 2006) 1 (16): 1-2.

theoretical "happiness" molecules at certain levels. The monoamine oxidase enzyme acts like the stadium cleaning crew after a football game by cleaning most of the spilled popcorn and beer cans. An MAOI inhibits the removal of those "happiness" molecules to a certain degree, theoretically inducing equilibrium of "chemical happiness".[113] However, since MAOIs typically affect other neurotransmitters in addition to serotonin, norepinephrine, and dopamine, the side effects can be far-ranging and surprising.

MAOIs are considered as a "last-ditch effort" due to their potentially lethal dietary and drug interactions. Singers taking MAOIs will need to modify their diets to avoid consuming foods and beverages containing tyramine. Tyramine is a byproduct of tyrosine, a nonessential amino acid used to synthesize proteins. If a singer were to consume a large amount of tyramine, they could suffer a potentially fatal hypertensive crisis. Tyramine creates a hypertensive crisis by increasing the release to norepinephrine which causes blood vessels to constrict. Foods with high levels of tyramine include chocolate, fermented foods (aged cheeses, beer, wine, pickles, soy and teriyaki sauce, etc.), raspberries, peanuts, avocados, bananas, pineapple, and many others.[114]

Singers will also have to be aware of potential drug interactions with over-the-counter and prescription medications, some dietary supplements, and illicit drugs. Combining with certain psychoactive substances, MAOIs can cause potentially lethal reactions with SSRIs, tricyclics, MDMA, and opioid pain medications.[115] MAOIs have also been known to cause neural sensitization which increases the addictive potential of certain drugs and substances, such

[113] Mayo Clinic Staff. 2016. *Monoamine oxidase inhibitors (MAOIs).* June 8. Accessed August 22, 2018.
    https://www.mayoclinic.org/diseases-conditions/depression/in-depth/maois/art-20043992.

[114] Hall-Flavin, Daniel. 2016. *MAOIs and diet: Is it necessary to restrict tyramine?* January 16. Accessed August 22,
    2018. https://www.mayoclinic.org/diseases-conditions/depression/expert-answers/maois/faq-20058035.

[115] Mayo Clinic Staff. 2016. *Monoamine oxidase inhibitors (MAOIs).* June 8. Accessed August 22, 2018.
    https://www.mayoclinic.org/diseases-conditions/depression/in-depth/maois/art-20043992.

as nicotine.[116] This sensitization can be produce dependence, causing an MAOI user to be

susceptible to withdrawal syndrome if the medication dosage isn't tapered over time.[117] Other

general side effects include muscle inflammation, sexual dysfunction, insomnia, myoclonic

twitches (sudden muscle jerks), mucosal dryness, constipation, and urinary hesitancy.[118] These

drugs also have the ability to cause vocal fold edema.[119]

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[116] Berlin, Ivan, and Robert Anthenelli. 2001. "Monoamine oxidases and tobacco smoking." *International Journal of Neuropsychopharmacology* 4 (11): 33-42.

[117] Dilsaver, S. C. . 1988. "Monoamine oxidase inhibitor withdrawal phenomena: symptoms and pathophysiology." *Acta Psychiatrica Scandinavica* 78 (1): 1-7.

[118] Hemmings, Hugh, and Talmage Egan. 2013. *Pharmacology and Physiology for Anesthesia.* Philidelphia: Elsevier Saunders.

[119] Sataloff, Robert Thayer. 2005. *Clinical Assessment of Voice*. San Diego: Plural.

<u>Conclusions</u>

Voice teachers and singers can employ and implement the techniques mentioned in this document with the hope that they may foster mental resiliency and objective thinking about their vocal progress. If voice teachers and students are interested in learning more about the techniques employed in CBT, further information is readily available online and in numerous self-guided workbooks and mass-market paperbacks. While it should be noted that though some techniques mentioned in this document may be helpful for some, they're not a panacea and are no substitute for a person in need of true psychological intervention by a licensed mental health professional Many universities have reference guidelines for identifying and helping students of concern. If a voice teacher feels that a student may be struggling with mental illness, communication is key. Students are well within their rights not to share anything about their personal well-being, but it is important that teachers let them know what resources are available to them.

When learning an instrument, musicians may benefit from not only musical practice, but mental practice as well. Mentally practicing the techniques mentioned in this document may give students the ability to analyze their progress objectively while contextualizing their successes and missteps in a rational and healthy way. The mental health crisis among musicians is very much real. Teachers who have therapeutic tools and techniques at their disposal may better serve developing musicians, providing them with the tools they need in order to pursue an often mentally and emotionally taxing profession.

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