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MA Voice Pedagogy Module 5 Assignment

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The Alexander Technique in Barbershop Chorus Pedagogy: A Representative Scoping Review of Evidence and Applications

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Component 1 - Project Portfolio

Introduction

As I progress on my choral directing journey, I am committed to filling gaps in my skillset so that I can best help our singers, who have a diverse set of musical backgrounds and experiences, grow along their vocal journeys. One of my chorus' recent priorities has been to enhance our performance quality by achieving a strong emotional connection to our repertoire and incorporating complementary staged and choreographed movement. While rehearsing these aspects of our performance, I have noticed that some of our singers experience vocal tension beyond what they typically experience when we focus on vocal technique. This suggests that while our singers possess the skills to sing efficiently, some of the physical processes that enable their efficient singing are not committed to habit and require a high degree of focus to achieve. This also illuminated that my pedagogical approach has possibly shifted too much toward being diagnostic rather than preventative, and at times may be too focused on resolving inefficiencies that present during rehearsal and not focused enough on building efficient vocal habits that reduce the likelihood of those inefficiencies presenting in the first place. As such, I became interested in exploring a methodology that could help our singers refine their vocal technique and engrain efficient vocal habits that persist even when their focus turns to other aspects of their performance.

One often-cited methodology that came to mind immediately, but that I knew very little about, is the Alexander Technique (AT). According to the American Society for AT (ASAT), practitioners in a variety of disciplines including the performing arts employ AT to "cultivate improved self confidence, breathing, endurance, vocal production, and precision of movement," (2025). A brief survey of the literature suggests that AT methods may have a variety of benefits in a barbershop ensemble context, including reducing muscle tension (Davies, 2020b), improving respiratory function (Austin and Ausubel, 1992), and reducing performance anxiety (Valentine *et al.*, 1995).

This study reviews the extant literature to explore the demonstrated impacts of AT on these key aspects of vocal performance and potential applications of AT in a barbershop chorus context.

Program of Study

Context

AT originates from the work of Frederick Matthias Alexander (1869-1955), an Australian man who struggled with hoarseness resulting from his work as an actor (Bloch, 2004). After medical treatments failed, Alexander examined himself in the mirror to try to determine the root cause of his vocal issues, comparing his posture while speaking normally versus while reciting lines (Bloch, 2004). He noticed that while reciting lines, he tended to "pull back [his] head, depress [his] larynx and suck in breath through [his] mouth in such a way as to produce a gasping sound" (Alexander, 1946, pp. 11-12), which was not the case in his normal speech. Alexander reasoned that these physical changes contributed to a "condition of undue muscle tension"

(Alexander, 1946, p. 17) in his body, and this finding became the basis for his eponymous technique, which people worldwide have used to develop more efficient postures and coordinations in a variety of applications (ASAT, 2025). ASAT claims that this helps facilitate “improved mobility, posture, performance and focus,” which can lead to relief of pain, tension and stress (2025).

AT is generally studied in private or group lessons consisting of both verbal and manual instruction (ASAT, 2025). AT lessons commonly involve the student lying on a padded table while focusing on “releasing any unnecessary tension [they] may be holding, promoting an enlivened sensory awareness and quieting [their] nervous system,” but can be customized and geared toward each student’s areas of interest, including performing arts like acting, dancing, playing musical instruments, and singing, enabling the student to perform key activities more easily and efficiently. (ASAT, 2025).

Perhaps unsurprisingly given Alexander’s occupation, actors commonly study AT and it is even included in some acting school curricula, often as a method of movement instruction, as it “provides a method for the integration of kinaesthetic experience as a means for organisation of coordination” (Bjerken, Mello, B. and Mello, R., 2012, p. 29). AT also has a strong level of adoption among musicians, with many musicians using it to “deal with playing-related challenges, such as postural discomfort and repetitive strain injuries” (Pendenza, 2024, p. 1). Like in acting programs, many universities and colleges have incorporated AT into their music curricula (Lee, 2019), and AT principles private voice teachers also employ AT techniques effectively to facilitate desirable vocal outcomes in their voice students (Hudson, 2002; Isley-Farmer, 2005). While many performing artists find AT to be beneficial, others have mixed or negative opinions about AT based on their experience with it, with some music students describing it as “frustrating” or even “pointless” (Pendenza, 2024, p. 10).

Although barbershop coaches and choral directors frequently work toward outcomes that AT has purports to achieve, such as reducing unwanted muscle tension in singers’ bodies, in my experience, AT is rarely explicitly applied in a barbershop context. AT has, however, been the subject of courses at barbershop educational events such as Harmony University in previous years (Barbershop Harmony Society, 2022) suggesting potential utility to applying AT methods in barbershop ensemble contexts. Given its long history of successful application in both voice and movement instruction in the performing arts, AT seems like a potentially viable methodology to use when working with barbershop ensembles.

The aims, objective and timescale for this exploratory study are outlined below:

Aims

- To improve my personal understanding of AT and how it is applied in practice when working with singers
- To critically analyze AT methods or exercises that may be effective in various barbershop chorus rehearsal scenarios, based on previous academic research and my anecdotal experience as a barbershop choral leader and ensemble coach

Objectives

- Conduct a review of the extant literature focused on the impact of AT and singing and related topics to identify the impact AT methods and exercises on muscle tension, respiratory function, and performance anxiety in singers and other performing artists
- Synthesize research findings with relevant grey literature and Alexander's writings to identify potential AT methods and exercises to apply in my barbershop choral directing practice to encourage these benefits in barbershop chorus singers
- Critically evaluate the potential applicability and efficacy of AT methods and techniques in various barbershop chorus rehearsal contexts

Timescale

The Gantt Chart below outlines various phases and tasks of this study from initial planning through final submission, along with approximate start dates, end dates, and durations.

Figure 1: Module 5 Project Gantt Chart

TASK NUMBER	TASK TITLE	START DATE	END DATE	DURATION (DAYS)	WEEK NUMBER																				
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Plan and define project	2025-07-16	2025-09-30	75																				
1.1	Attend lectures or watch lectures on playback	2025-07-16	2025-09-30	75																				
1.2	Brainstorm research question(s) and methodology	2025-09-01	2025-09-23	23																				
1.3	Finalize research qeustion(s) and methodology	2025-09-24	2025-09-30	7																				
2	Conduct literature search and review	2025-10-01	2025-10-31	31																				
2.1	Conduct literature search	2025-10-01	2025-10-24	24																				
2.2	Conduct literature review	2025-10-08	2025-10-31	24																				
3	Write paper	2025-10-15	2025-12-01	47																				
3.1	Write draft of paper	2025-10-15	2025-11-17	33																				
3.2	Revise draft of paper	2025-11-17	2025-11-30	14																				
3.3	Submit final draft of paper	2025-11-30	2025-11-30	1																				

Methodology

I conducted my literature review below following the methodology outlined by Randolph (2009), which builds on Cooper's Taxonomy (1988). My study focused primarily on research outcomes related to impacts of AT methods on vocal performance. Before beginning my Module 5 work, I had very limited knowledge about AT, no notable preconceived notions about it, and no conflict to resolve, so I approached this study through a neutral and exploratory lens. I integrated findings from previous academic research on AT and singing and other performing arts topics, along with related grey literature and my own anecdotal experience as a barbershop choral leader and ensemble coach. This study was completed in the style of a scoping review, but can be more accurately described as a representative scoping review, given the brief duration of Module 5.

To search for extant literature relevant to my research questions, I utilized the University of Wales Trinity Saint David's online library services, Google Scholar, and ProQuest. I used key search terms with boolean logic such as ("Alexander Technique" AND singing) and ("Alexander Technique" AND music). After

reading the abstracts of articles returned as results and determining whether each was related enough to my research questions to warrant a more through review, I then employed Thematic Analysis (Clarke and Braun, 2017) to determine which articles were related to each of my primary topics: muscle tension, respiratory function, and performance anxiety. I also utilized backward and forward citation chaining (Bates, 1989) to find additional related studies that did not appear in my original search results, and continued in this way until I exhausted all chained references meeting my inclusion criteria. Where there are gaps in peer-reviewed literature, such as on topics like voice pedagogy, vocal anatomy and physiology, and practical application of AT in a singing context, I referenced grey literature to enrich my findings. I also utilized a biography of Alexander, as well as one of Alexander's own writings to integrate aspects of the founder of this technique's perspective into the research. Finally throughout the exercise of writing this paper, I incorporated anecdotal evidence from my own practice as a barbershop choral leader and ensemble coach, as well as a performer with years of ensemble singing and private voice lesson experience.

My two primary inclusion criteria for white literature were that the study be either a peer-reviewed journal article or a doctoral dissertation, and that the full text be available online. Papers that meet these criteria have a high level of academic rigor, having passed the scrutiny of a significant review process by other experts in the field, and were also readily available for me to access and review at the time of researching. I did not enforce any publication date restrictions, so academic studies from 1980-2025 were included in this review, with Alexander's *The Use of the Self* having been originally published in 1932. While much of the literature on AT in a musical context focuses on instrumentalists rather than vocalists, I chose to include these studies in this review since the benefits identified may translate well to singers, although similar research would certainly be needed to confirm this. Lastly, research on other somatic methodologies such as the Feldenkrais Method (FM) is considered to be out-of-scope for this review, while Body Mapping research is in-scope, since it is a subdiscipline of AT (Franklin, 2016).

<u>Component 2 - Project Report: Review</u>

Introduction

Previous research suggests that performing artists who employ AT elements in their practice may benefit from reduced muscle tension (Davies, 2020b), improved respiratory function (Austin and Ausubel, 1992), and reduced levels of performance anxiety (Valentine *et al.*, 1995). I completed a representative scoping review of extant literature on AT's impact on singing, voice function, and related topics, in an effort to answer the following research questions:

1. How do AT methods and exercises impact singers in terms of muscle tension, respiratory function, and performance anxiety?
2. In what ways and in what contexts can AT methods and exercises be effectively incorporated into a barbershop chorus rehearsal to encourage the same benefits in barbershop chorus singers?

I most heavily weighted studies with experimental or quasi-experimental methodologies, those that were published in peer-reviewed journals, and those that included singers as participants. I combined findings from the literature with grey literature related to singing and AT, Alexander's personal writings, and anecdotal insights from my experience as a barbershop choral leader and ensemble coach. Finally, I critically reflected on my experience throughout the assignment, what I learned from it, and next steps for me in terms of attempting to incorporate AT principles or methods into my own barbershop chorus directing practice.

Literature Review

Muscle Tension

While there are some considerable areas of disagreement among voice pedagogues, an idea on which most are aligned - anecdotally including barbershop voice practitioners - is that unwanted muscle tension interferes with efficient vocal production. McCoy explains that "improper postures and tensions…are transferred from one location to another," (2016, p. 75), and Ragan (2020) likewise warns of the "potential for unwanted muscular antagonism and recruitment (engagement resulting in a negative consequence)," (p. 161) due to physical connections between the larynx and other vocal tract structures. Alexander's (1946) self-observation led him to a similar conclusion, arguing that lower body tension he experienced was "indirectly associated with [his] throat trouble," (p. 18) and that he achieved "better results in [his] reciting" (p. 18) after making postural adjustments. In fact, Lewis (1980) found that AT "is theoretically consistent with widely accepted principles of vocal pedagogy," (p. 136) based on a survey of singing teachers where nearly three-quarters agreed that a singer's "awareness and release of excess tension in one part of the body significantly facilitates awareness and release of excess tensions in other parts of the body" (Lewis, 1980, p. 136).

Klein, Bayard, and Wolf (2014) conducted a systematic review of experimental AT studies, concluding that of 237 AT citations they examined, only 12 were experimental studies meeting their inclusion criteria. Several of these studies do not meet the inclusion criteria of this study, either because their full text was not available online, they are not either published in a peer-reviewed journal, or they are not a doctoral dissertation. The only study reviewed in Klein, Bayard, and Wolf (2014) that dealt explicitly with muscle activity found that singers who underwent AT training experienced significant decreases in upper trapezius muscle activity relative to singers who completed only standard vocal exercises and those who completed body awareness exercises, providing strong evidence that AT training may significantly alter muscle activity in singers (Englehart, 1989). Wong *et al.* (2024) later concluded that AT lessons caused significant changes in postural angles in pianists that were still apparent four weeks post-intervention, suggesting that AT may encourage long-lasting changes in musicians' posture. Wong *et al.* (2024) did not specifically address or measure muscular tension, but their findings suggest that if a musician's posture is introducing or exacerbating muscle tension, that AT methods may be effective in helping them modify their posture to mitigate that tension.

Ying, *et al*. (2015) quasiexperimentally studied fifteen college-aged pianists, observing significantly lower tension levels in participants following an AT training regimen. In two studies by Davies (2020a; 2020b), university music students reported lower levels of muscular tension and improved posture following AT training. These three studies relied on subjective, self-reported test ratings from the participants, rather than objective measurements like in Englehart (1989), which is a substantial methodological limitation, and therefore these results should be interpreted with caution.

Much of the literature on the impact of AT on muscle tension in musicians are case studies, and most of these focus primarily on instrumentalists. An exception to this is Bosanquet's (1987) case study describing her work helping a child develop her singing voice, largely through AT-informed postural adjustment and muscle relaxation techniques, which helped the child substantially improve her intonation and expand her vocal range over a brief period of seven weeks. Rosenthal (1987) documented her work with three professional instrumentalists who each began studying AT while suffering from "severe or disabling pain" (p. 56) associated with their playing. The instructor was able to identify body areas where each musician carried excess tension, and help them reduce that tension through AT, ultimately leading to reduced pain levels. Importantly, she also equipped them with the necessary knowledge and skills to identify and mitigate similar tension issues on their own, for long-term impact. Other case studies on instrumentalists including strings, woodwinds, and piano players have highlighted how AT postural adjustment techniques helped improve the efficiency of musicians' playing by reducing habitual muscle tension (Kaplan, 1994; Bosch and Hinch, 1999; Kwon, 2012).

While findings of AT research of instrumental musicians may translate to singers, Chen (2006) found that singers they studied were drawn to AT training primarily to address psychological issues such as performance anxiety, while the instrumentalists were drawn to AT training primarily to address physical problems and cautioned that singers may suffer from different ailments than instrumentalists in general. Future research involving singers as participants is therefore warranted to confirm the applicability of these findings to singers.

As a practical method to address jaw and neck tension in singers, Heirich (2023) recommends asking singers to sing while lying down to help release their temporomandibular joint and adjacent musculature. While anecdotally I would expect this exercise to be similarly effective in choral singers who experience jaw and neck tension, it would prove difficult to implement during a chorus rehearsal because of the large amount of space it would require, the logistical challenge of lying down on risers for groups that utilize risers, and the difficulty some singers with mobility issues would have executing this exercise safely. Thus, this exercise is likely best reserved for individual voice lesson settings with singers who experience jaw and neck tension and who are sufficiently mobile to do it.

Heirich also discusses the AT concept of "thinking up" (2023, p. 281), a metaphorical method of encouraging singers to release neck tension. This instruction seems feasible to implement in a choral setting, as it can be done with each singer remaining in place and does not require significant explanation, and it could be beneficial when extralaryngeal tension seems to be a significant issue across the ensemble. Anecdotally, this is most common in passages that are relatively high in pitch and intense in dynamic. Some singers also

commonly experience extralaryngeal tension when the rehearsal focus is on emotional connection or movement rather than vocal technique, as extralaryngeal tension is a side-effect of their trying to increase their vocal and physical expression. Encouraging singers to continue “thinking up” in these scenarios may help prevent or delay the onset of such tension, but may make it more difficult for them to achieve the desired emotional connection or natural movement.

Mingle (2018) discusses how AT practitioners who notice tension in a singer may hypothesize that the tension arose because the singer focused on “the ends (phonation) rather than the means (vocal technique) that enable the desired result to occur” (p. 10), a phenomenon Alexander refers to as “end-gaining” (1946, p. 39). In the example of a singer experiencing jaw tension, the AT practitioner might opt to temporarily leave the context of the song, and move to a non-singing activity that encourages awareness of freedom of jaw movement, potentially even using manual guidance to help guide the singer to the desired outcome, before reintroducing the song context and encouraging the singer to focus on achieving the same kind of released jaw in their singing (Mingle, 2018). In my practice, when there is a widespread issue of a certain type of tension across the ensemble, I often will introduce an exercise to facilitate the release of the tense body part(s), although I typically retain the context of the song. Removing the context of the song as Mingle (2018) suggests could be useful when working on song passages with complex harmonies or rhythms, a scenario in which our singers often get caught up in focusing on the ends instead of the means, to use Alexander’s (1946) terminology. However, because it is impossible for one choral director to manually assist numerous singers at once, and because of ethical issues associated with physical contact with singers and within the student/teacher (or chorus member/director) power dynamic (Thuma and Miranda, 2020), I am unlikely to use manual guidance as a teaching method with my singers.

Franklin (2016) also outlines various methods for applying AT techniques in a choral rehearsal setting. He recommends movement exercises “to enhance understanding of posture and [find] other ways to engage the whole body in singing” (Franklin, 2016 p. 79). He also recommends doing exercises from Body Mapping, a related methodology to AT, to encourage well-coordinated movement, and instill in singers “an awareness of the importance of coordination of head and spine in any of their movements, leading them to freedom of physical action and ultimately freedom in their singing voice” (Franklin, 2016, p. 81). These exercises may be effective in scenarios where our rehearsal focus is on movement, and also as a warm up exercise to help establish an efficient foundational singing voice on which to build for the remainder of the rehearsal. Franklin additionally discusses the applicability of AT to choral conducting, arguing that if a conductor is focused on the ends of their conducting, rather than the means by which they are doing the conducting, then like the singers they are leading, conductors may unconsciously exhibit habitual tensions or inefficient coordination, which in turn can induce tension in their singers. Conductors like me who lack AT training may benefit from such training to better mitigate any muscle tension in their conducting that may contribute to vocal inefficiencies in their ensemble.

Moreno (2016) also advocates for Body Mapping in working with singers, including mapping the atlanto-occipital joint to mitigate neck tension, as well as mapping articulatory structures including the jaw,

tongue, and velum to mitigate tension in those areas. For instance, the author notes that “once students understand the nature and size of the tongue, they may learn that they are using the tongue to do the work of other muscles in order to achieve proper resonance” (Moreno, 2016, p. 72). Body Mapping exercises such as these may be an effective addition to a warm up regimen. Alternatively, a separate Body Mapping educational session may be a more appropriate way to introduce this concept. Regardless, it would be interesting to see what impact helping barbershoppers build awareness of their body map would have in a barbershop ensemble setting.

Respiratory Function

Efficient breath management in singing “requires a dynamic balance between inspiratory and expiratory muscles to achieve efficiency”’ (Ragan, 2020, p. 19). Due to the interconnectedness of the body’s musculature discussed previously, excess muscle tension can potentially interfere with this balance and impact respiratory efficiency, meaning that the goals of mitigating unnecessary muscle tension in the body and promoting efficient respiratory function are inextricably linked. Alexander (1946) lamented his “faulty breathing” (p. 9) while reciting lines and hinted at the interconnectedness and interdependence of different aspects of vocal production, expressing uncertainty as to which of his unintentional head movement, laryngeal depression, or “sucking in of breath” (Alexander, 1946, p. 12) was causing the other two.

A study on Body Mapping in flute pedagogy defines balance as “a fluid state in which the body does its work most efficiently and effectively,” (Pearson, 2000, p. 19) and notes that when a flautist is out of this state, they put unnecessary pressure on various muscles of the body to compensate, which hinders their performance (Pearson, 2000). In particular, the author explains that if “the balance [through the core weight-bearing part of the spine] is even a little off, the back muscles tighten slightly and impede deep breathing” (Pearson, 2000, p. 38). Since people share the same general anatomy and physiology regardless of the instrument they play, the same is true for singers, and achieving a state of balance is similarly important for efficient voice production. Pearson advocates for the use of the word “balance” instead of “posture,” which she argues “impl[ies] stiffness” (2000, p. 95). Moreno (2016) similarly advocates for the use of the adjectives to describe posture that encourage “free, uninhibited movement” (p. 26) rather than rigidity. This reinforces that instructors of all kinds should be intentional and precise with their choice of language, an idea for which Cole (2015) also argues in the context of teaching with AT methods.

As with the idea of AT’s training’s impact on muscular tension, there are few experimental studies in the literature that have investigated the impact of AT training on respiratory function in musicians. Dennis (1987) experimentally studied the impact of AT on the respiratory function of wind instrumentalists, finding no evidence that AT improved any of the outcomes of interest. In fact, the only significant finding showed that the AT group performed worse than the control group in maximal voluntary ventilation. Five years later, Austin and Ausubel (1992) studied the impact of AT on respiration outside the context of music, finding evidence that subjects who underwent AT training saw statistically significant increases in maximum voluntary ventilation, peak expiratory flow, maximal inspiratory mouth pressure, and maximal expiratory mouth pressure. The authors hypothesize

that these respiratory improvements associated with AT training were partially due to lower resting tension levels in the torso musculature. Gaunt (2007) observed notable differences in breathing behavior of oboists following AT instruction, suggesting that AT may encourage changes in breathing technique of musicians. Davies (2020a) similarly observed improvements in breathing of wind players who received AT instruction, bolstering the evidence that AT training may help improve musicians' respiratory function. These results may translate to singers, but more singing-specific research is needed, especially given the criticality of efficient breath management in singing.

Moon, Park, and Yang (2022) studied the use of a therapeutic singing treatment that was based on AT methods and its impact on elderly people with healthy voices, finding that those who completed it showed statistically significant improvement in peak expiratory flow rate as well as other phonatory metrics. This especially suggests that AT training could be especially impactful for the respiratory function of the population of barbershop singers, which skews older (Gongaware, 2025).

Bosch and Hinch's (1999) case studies on flautists involved refining respiratory technique through an AT lens. The authors found that the AT instructor was able to help two flute students improve their respiratory function through techniques like having the student release their abdominal muscles prior to inhalation, having the student lay on the floor to help them improve their posture and breathing efficiency, and through the Whispered Ah technique, which involved breathing in, and then allowing the air to release from the mouth without any effort to force it to release (Bosch and Hinch, 1999). These exercises helped the students to reduce habitual tension that was negatively impacting their breathing technique, and ultimately improve in their flute playing. Heirich (2023) similarly advocates for the exercises of lying on the floor to help with breathing efficiency as well as reducing muscular tension, as it may encourage improved freedom in the intercostal muscles and rib cage, allowing for a more natural recoil-based inhale rather than an active one that some singers are accustomed to. I have previously instructed my chorus' singers to loosen abdominal tension while inhaling, but some would likely benefit from an occasional reminder of this concept. As discussed in the previous section, the lying down exercise, while potentially useful in an individual voice lesson setting, is logistically impractical in a chorus rehearsal setting. The Whispered Ah exercise, however, could be directly applied in a barbershop chorus setting and may help choral singers improve breath management by simply being less active and more relaxed in their inhalation and exhalation. I would expect it to be particularly useful in situations where we have long held notes that some singers struggle to sustain for their full duration. This is especially common in climactic moments of songs, which tend to be higher in pitch and louder in dynamic, meaning extralaryngeal tension is also more likely to be present as discussed in the prior section, so some work may need to be done to disentangle multiple sources of tension.

Heirich (2023) also discusses the idea of breath holding, specifically the unintentional and habitual blocking of normal breath flow. For people who do this, the author argues that exercises should be performed that break this habit and establish a new habit of natural breath flow. She proposes two partner-based games to draw awareness to breath-holding habits that, while interesting in concept, again involve physical touch, this time between pairs of singers, and so are unlikely to be great candidates for a chorus rehearsal. One final

exercise she proposes involves a singer gradually progressing from whispering one vowel to singing vocal exercises to singing passages of a song, and each time a singer breathes, simply allowing the breath to come back in naturally without any action on the singer's part. This exercise is meant to help the singer think differently about breathing for singing, and making it less of an active process, which would be a good exercise for singers who tend to overbreathe in their singing in an individual voice lesson. However, It would be difficult to implement in a choral setting given the impossibility of coordinating the varying lengths of each person's phrases and preserving the natural, individualized cadence of the exercise for each singer.

Moreno (2016) argues that Body Mapping can also help improve singers' respiratory efficiency by helping them better understand what happens in their body during respiration such as the natural movement of the rib cage and spine, along with other key parts of the respiratory system like the diaphragm and abdominal muscles. These exercises as described in Moreno (2016) involve manual guidance, which for ethical reasons discussed previously I will likely avoid. However, like Moreno's other Body Mapping exercises discussed in the previous rehearsal, they could be modified to exclude manual guidance and could still be incorporated into a barbershop chorus rehearsal, whether as part of the warm up or in a separate educational session. Weiss (2005) notes that while singers are typically taught about vocal and breath anatomy and physiology in vocal performance degree programs, they do not learn about other integral body parts such as the head, neck, or back. This incomplete anatomical education could contribute to the common mismapping of body parts such as the spine that Moreno (2006) refers to, and advocates for body mapping work to correct, and this relative lack of knowledge of vocal anatomy is even more likely to be the case among barbershoppers who are mostly amateur singers with little-to-no formal music or voice education (Gongaware, 2025).

Performance Anxiety

A third area in which there is a notable amount of research of the impact of AT on musicians is performance anxiety. A common mental health condition among musicians, Music Performance Anxiety (MPA) "encompasses a set of cognitive, physiological, and behavioral symptoms that impact the population of musicians when exposed to public musical performance" (Gómez-López and Sánchez-Cabrero, 2023, p. 720.1). The authors distinguish between adaptive MPA which is considered to be a somewhat normal reaction to public performance, and debilitating MPA which is more severe, harder to alleviate, and can have substantial negative impacts on the quality of the performance of its sufferers. While a challenge for all types of performers, MPA can be particularly problematic for singers as it can cause symptoms including "shaking voice,...difficult or altered breathing,...[and] muscular tension," (Boyett, 2019, p. 3), all of which can impact a singer's vocal quality. Musicians with MPA may even hyperventilate, which "is a particularly disturbing issue for wind and brass players and singers who rely on breath control to produce sound" (Zhukov, 2019, p. 54). Clearly, mitigating performance anxiety for musicians who suffer severely from it is very important to helping them maximize their potential as performers.

Ryan and Andrews (2009) surveyed 201 choral singers, over half of whom noted that they experienced moderate performance anxiety at least half of the times they perform. Further, 15% reported frequently

experiencing performance anxiety, and 7% characterized their performance anxiety as being highly severe. This shows that even in a choral ensemble setting, singers still commonly suffer from performance anxiety, which may detract from their individual contribution to the ensemble and therefore detract from the ensemble's overall performance quality. Alexander viewed anxiety in a similar vein as he viewed physical issues like excess tension, arguing that it would require a change in their underlying habits for a person with anxiety to successfully overcome it. Thus, while AT's original aim was not necessarily to address psychological issues like anxiety, Alexander seemed to feel his methods could be helpful in mitigating them.

Supporting Alexander's position, Klein, Bayard, and Wolf's (2014) systematic literature review found that the only statistically significant results in the body of literature of AT on musicians at their time of publication was related to reduction of performance anxiety. Valentine *et al*. (1995) experimentally studied the impact of AT training on various measures including self-rated anxiety levels in musicians in both high and low stress situations, finding that the group who completed AT training reported statistically significant reduction in anxiety levels in the low stress environment. However, the researchers did not observe this same anxiety reduction in the high stress environment, meaning perhaps the participants did not receive sufficient training in AT to successfully manage the high stress situation, or alternatively that AT training in isolation may not equip musicians with the skills to do so, and another intervention would be needed either in addition to or in lieu of AT training. Egner and Gruzelier (2003) used AT as the treatment for an active control group when testing the impact of two neurofeedback protocols on a variety of outcomes in instrumental music students, observing a reduction in performance anxiety in both the neurofeedback groups and AT group, as well as the control group. Consequently, despite performance anxiety decreasing in the AT group, this is not strong evidence that AT methods caused the reduction in performance anxiety. Other studies reviewed in Klein, Bayard, and Wolf (2014) that cited reduced performance anxiety among musicians who studied AT did not meet the inclusion criteria of the present study.

Armitage (2009) explored the relationship between posture and emotion, as well as the psychological impact of AT training in general, outside the context of music. She argues that "body posture and emotions are linked, and that posture can contribute towards the cause and maintenance of distress" (Armitage, 2009, p. 8). This suggests the possibility that AT exercises aimed at adjusting posture, may also have an impact on the emotional state of the singer, including altering anxiety that may be present. More research is needed in this area to establish a more firm connection between posture and emotion. Armitage also notes that people who had undergone AT training often reported feeling more confident. This impact of increased confidence could have contributed to the reduction in anxiety levels observed in the AT studies discussed previously, though more research is also needed to confirm this.

Heirich (2023) recounts her personal experience with addressing performance anxiety through an Alexandrian approach by developing new mental habits such as "learn[ing] to be present in the moment, "learn[ing] to let go of things that did not go exactly as planned," and "learn[ing] to pay continual attention to [her] kinesthetic sense of how [she] was singing" (p. 225). Unlike muscular tension and respiratory inefficiencies, she does not posit any AT exercises that are specifically focused on reducing performance

anxiety, instead emphasizing the complexity of performance anxiety and the wide variety of methods that may help different singers “understand [their] fears and to turn the adrenaline rush into positive energy” (Heirich, 2023, p. 226).

Given the different physical ways MPA can manifest in a singer and evidence in the literature previously discussed, there is likely a complex interaction between performance anxiety and physical issues like muscular tension and breathing difficulties which may make it difficult for choral directors and voice teachers to disentangle cause from effect. Fortunately, it seems that some of the previously mentioned AT exercises may address a singer’s issue from both a physical and psychological angle. For instance, the Whispered Ah exercise mentioned in the previous section can help singers more efficiently manage their breath, and breathing exercises in general have shown potential to help reduce and stress anxiety (Jerath *et al.*, 2015). Additionally, the exercise of singing while lying down has physical benefits of reducing unwanted muscular tension in areas like the neck, but may also allow a singer to achieve more vocal efficiency, which could boost their confidence level in their abilities and reduce future performance anxiety. Incorporating breathing exercises like the Whispered Ah exercise as a warm up, especially on performance days when singers’ level of anxiety is likely to be higher, may be an effective way to mitigate barbershop chorus singers’ performance anxiety, while also facilitating other respiratory benefits discussed previously.

Performance anxiety may be difficult to address in a rehearsal setting since some singers’ anxiety may not manifest outside of a true performance setting when the stakes are at their highest. In an ensemble setting like a barbershop chorus rehearsal, this difficulty is compounded even more by the aforementioned complexity of performance anxiety, the multitude of ways it can manifest in singers, and the idea that each singer may best respond to a different approach to mitigating performance anxiety. As a choral leader, I endeavor to create conditions that make my singers as comfortable as possible to begin with, and to equip them with exercises to utilize if they do begin to experience anxiety in a performance setting to help them return to as relaxed a state as possible. Ryan and Andrews (2009) noted that 84% of respondents to their survey felt that the conductor’s behavior impacts their level of performance anxiety. In particular, the conductor being anxious, stressed, or otherwise in a bad mood seems to be a large trigger of performance anxiety in the ensemble. Therefore, it is incumbent upon me to manage my own emotions appropriately so that they do not adversely impact those of my chorus’ singers and best set the ensemble up for success during each performance. The authors also noted that singers used a variety of techniques to cope with performance anxiety, including prescription drugs, alcohol, and psychotherapy. While I would not advocate for the use of alcohol as a coping mechanism, I would certainly encourage singers who suffer from severe performance anxiety and feel they need help to seek medical treatment or counseling from qualified experts. In these situations, it is important for choral leaders to recall their scope of practice, and not conjecture any particular diagnoses or proposed medical treatments, but simply refer the singer to a licensed medical professional for examination and treatment. Beyond this, I would emphasize the potential benefits of breathing exercises such as the Whispered Ah in reducing performance anxiety in the moment, whether off-stage prior to a performance or between songs while accepting applause, and encourage singers to implement that technique on their own as needed.

Future research on the impact of AT study on performance anxiety is warranted to better understand its exact impact. Previous research has focused on self-reported anxiety metrics as opposed to objective metrics, so it would be interesting to investigate the impact of AT study in performance anxiety sufferers on physical measures such as pulse and respiration rates, as well as neurological activity. Such a study would be challenging to design as it would be nearly impossible to replicate a true performance environment while also having the ability to obtain objective physiological measurements of what is going on in the singer's body during the performance. Accordingly, future studies will likely be restricted to objective, self-reported measures of anxiety for practical reasons. Future studies are also warranted to understand the connection between the psychological phenomenon of performance anxiety with its physical symptoms like respiratory challenges and muscular tension.

Conclusion and Future Recommendations

The evidence for the impact of AT on muscle tension, respiratory function, and performance anxiety in singers is mixed and inconclusive. While a fair number of previous studies have been completed, many of them did not find statistically significant impacts of AT on these measures, were more anecdotal in nature such as those focused on results from interviews with musicians or practitioners, or had methodological limitations such as not being randomized trials, not having a control group, or relying on self-reported assessments of the outcomes of interest rather than objective measurements. Additionally, many of the studies reviewed featured instrumentalists as participants rather than singers, or were conducted in a context entirely outside of music, so more evidence is needed to demonstrate that these findings also apply to singers. The reasons for these methodological limitations are likely several, including limited research funding for the arts in general, the inherent complexity of measuring physical outcomes of singers with most of the vocal production process being invisible to external observers without the aid of sophisticated equipment, and the complexity of mimicking a typical performance environment in a controlled, laboratory-like setting. These challenges are likely to continue to limit the potential for experimental AT research on singers for the foreseeable future, which emphasizes the importance of other research methods, including practice-based methods, to evaluate the efficacy and limitations of AT in various voice pedagogy applications.

Despite this lack of concrete scientific evidence of the efficacy of AT methods on the outcomes of interest singers, there is still anecdotal and case study-based evidence of its efficacy to support its use in voice pedagogy. The AT techniques previously discussed were mostly designed for use in the private voice studio, and several are likely not feasible in a choral ensemble setting due to floor space restrictions, the nature of the exercise (e.g. ones that allow for varied phrase durations), or ethical considerations such as wanting to avoid manual guidance and physical touch. I am inclined to reserve these types of exercises for individual voice instruction settings for singers experiencing issues with muscle tension or respiratory inefficiency.

Other exercises such as the "thinking up" exercise, the Whispered Ah exercise, introducing an unrelated, non-singing activity to release a particular tension, and other Body Mapping activities could easily be incorporated into a barbershop chorus rehearsal in scenarios like vocal warm up routines or separate

educational sessions outside of rehearsal, when rehearsing passages of songs where tension is especially common, such as those that are high in pitch or dynamic, or when rehearsing emotional connection or movement and wanting to keep vocal efficiency in check even when it is not the primary objective. I am intrigued to try these exercises to see if they can help the singers with whom I work develop and engrain more efficient habits and thereby improve their contribution to the ensemble.

Critical Reflection

For the remainder of this paper, I will critically reflect on my Module 5 learning experience. Since I opted for a repeat of Module 4 and did not produce an artifact, I needed to select a reflective model in which practical experience with my learnings was not a critical component. Driscoll's (2007) 'What?' model of critical reflection is applicable to theoretical, desk-based learning and positioned me for future learning, growth, and exploration in the application of AT methods in my barbershop choral directing and ensemble coaching practice.

What?

I considered making the focus of this study both AT and FM and investigating their impacts on additional singing outcomes, but ultimately decided to narrow my scope to only AT and only the three outcomes previously mentioned.

So What?

Although I am interested in learning how AT impacts other aspects of singing, learning how FM impacts various aspects of singing, and comparing and contrasting the literature between the two, this original scope would have been far too broad for this project's timeline and word count. I had a similar experience in Module 4, where I originally considered a topic that was too broad in scope, and needed to choose a narrower topic to focus on, leaving other related topics for future learning. This learning from Module 4, as well as the advice of Module 5 tutor Joshua Lee-Cummins, led me to make the wise decision to narrow the focus of my Module 5 project to something that was more manageable within the timeframe I had to complete it and the word count I had to write about it.

Now What?

This decision reinforces my learning from Module 4 that while it is tempting to try to study a wide variety of topics to learn as much and gain as many skills as possible, I also need to resist this urge and instead select a topic broad enough to have enough substance to study, but narrow enough to be able to delve thoroughly into rather than covering a broader range of topics, but only at a surface level.

What?

I reviewed the extant academic literature on the impact of AT and other performers to try to understand the potential impacts of AT on muscle tension, respiratory function, and performance anxiety in singers.

So What?

Given AT's long history of application, including among singers, I expected there to be a considerable body of academic research on its impact on singers. However, there was relatively little research specifically on singers, and even the broader body of research on all musicians did not contain as much experimental research or as many conclusive findings as I anticipated. While there is anecdotal and case-study evidence to justify AT's use in a singing context, including the potential applications in a barbershop chorus context previously discussed, more research is very much needed to clearly demonstrate the benefits of AT to singers and other performers.

It was also interesting to review some of Alexander's writings to better understand his perspective as he examined his personal issues with hoarseness, determining what he believed to be its causes and potential remedies, and then subsequently developing what would become known as AT. While his methods were not scientifically rigorous and would not pass the scrutiny of modern peer review, he did seem to make astute observations about his own behavior that are largely consistent with widely held truths in modern voice pedagogy, even after it has been influenced by decades of additional findings in voice science.

Now What?

I learned a good deal from this exercise about the theoretical basis for and philosophy of AT from Alexander's own writings and other writers' analysis of AT, as well as ways in which AT has been successfully applied in the voice studio, choral rehearsals, and by instrumentalists. However, as of this writing, I have never worked with an AT practitioner or seen AT implemented in practice, so I would be interested in studying AT myself to experience it firsthand.

I do not anticipate my own pedagogical practice drastically shifting toward AT methods given the lack of clear scientific evidence to support it. However, I am cognizant that my practice is more art than science, and that some AT methods could prove to be helpful in working with barbershop ensembles even without scientific evidence demonstrating that. I am open to experimenting with the methods discussed previously in various scenarios throughout a barbershop chorus rehearsal where they seem particularly applicable.

What?

I researched applications of AT in private voice and instrumental lessons to determine which of those may be feasible to implement in a barbershop chorus setting and in which types of scenarios they seem most applicable.

So What?

In my research, I encountered several AT-based exercises that are commonly utilized in voice and instrumental lessons. I anticipated that most of these exercises would be directly applicable to a choral setting, but more of them than I expected would likely not be easily applied in a choral setting without adaptation. I also did not consider the ethical considerations of manual guidance and physical touch on which AT largely relies. I am uncomfortable with that aspect of AT teaching and will likely avoid that in my own pedagogy. Despite this, I identified some exercises that I expect to translate naturally to a barbershop chorus setting, namely the Whispered Ah and “thinking up” exercises, as well as various Body Mapping strategies that could be useful to help singers achieve more efficient breath management, reduce muscular tension, and acquire a better understanding of their bodies, and therefore their instruments as singers.

Something else that became apparent to me throughout the process is that my current teaching philosophy is already fairly consistent with AT principles, despite me never having studied AT. I often focus on identifying and mitigating sources of muscular tension, which is common in AT training. I also often talk about achieving efficient breath management through allowing the breath cycle to be as natural as possible without actively aiding it, which seems to be aligned with AT principles on breathing. Accordingly, I anticipate that I will explore AT methods and potentially borrow them to fill gaps in my pedagogical practice, rather than substantially shifting my pedagogy to pure AT or marketing myself as an AT practitioner.

Finally, I did not initially consider the potential impact of AT techniques on conductors. As a relatively inexperienced choral conductor, I am focused on refining my conducting technique, including working one-on-one with my chorus’ Artistic Director on making my gestures more clear and reducing unconscious tensions that stand to adversely impact the ensemble’s performance. Based on my learnings from this project, AT lessons seem like they may be very helpful for me in helping me accomplish this, so I am interested in taking AT lessons in the future, both for my own singing and conducting technique.

Now What?

I will develop a plan for how to integrate the aforementioned AT methods throughout my barbershop chorus’ rehearsals and other educational contexts in 2026, and will iteratively evaluate and modify my approach based on the outcome of testing each exercise. I will also search for AT instructors in my local area and inquire about introductory lessons to help me improve the efficiency of both my singing and conducting technique.

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