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How to Address Music Performance Anxiety (MPA): An Explorative Study

By
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An undergraduate honors thesis submitted in partial fulfillment of the
requirements for the degree of
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In
University Honors
And
Bachelor of Music Performance

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Introduction

Stage fright, also known as performance anxiety, is a feeling that many people have experienced at some point in their life. Whether this be during public speaking, before a test, or at a competitive sports event, without adequate coping methods, performance anxiety can present a challenge to completing the task at hand. Music Performance Anxiety (MPA) can be a lifelong obstacle, affecting musicians who are working towards a career in performance, as well as those who already have an established and successful career. Despite years of training, countless performances, auditions, and recitals, figuring out how to address MPA can be challenging. For some musicians, acute MPA has gotten in the way of a successful career and others give up performance despite being competent musicians.

As a violinist hoping to eventually have a successful performance career, I write this thesis project mainly from my own interest, as it presents an opportunity for me to find the best way to combat my own MPA. The focus will be on the overall impact different MPA treatments have on my own ability to perform. This thesis will involve comparing and contrasting different treatments, nevertheless I am not looking to find general conclusions regarding the efficacy of specific MPA treatments. This project is tailored to my own situation, but I hope other musicians will be able to learn from the treatment methods I explore and replicate the process for themselves.

Background

Many famous musicians such as Fredric Chopin, Arthur Rubinstein, Vladimir Horowitz, and Sergei Rachmaninoff, have been known to have MPA (Kenny, 2011, p. 1). Studies have found that MPA is prevalent in professional orchestras and music institutions. One survey of 56

orchestras found that 70% of the musicians reported MPA levels severe enough to affect performance ability (Kenny, 2005). Another survey of 2,212 classical musicians found that 40% of them had MPA, which they felt affected their performance (Hoffman and Hanrahan, 2012). Despite these findings, research on MPA is relatively new and not often undertaken. Compared to the existing research on anxiety disorders and the occurrence of performance anxiety in other fields (such as public speaking, test, and sports anxiety), research on MPA is still in its infancy. This is partly because a concrete definition of MPA is still developing and a standard has not been established to ensure well-conducted, randomized, and controlled, research studies (Kenny, 2005)¹. In addition, there is debate as to whether MPA should be categorized under other anxiety disorders, such as social phobia, or if it should be considered its own separate disorder.

Defining MPA

Dianna Kenny, a professor of psychology and music at the University of Sydney, has emerged as one of the leading experts on MPA. Kenny argues that MPA has distinctive traits that separate it from social phobia and other anxiety disorders, but also states that MPA can still occur comorbidly with social phobia (Kenny, 2011, p. 61).

Kenny defines MPA as a persistent stress and apprehension related to music performance; the degree of anxiety being partially independent of the level of skill, training, and preparation of the musician (Kenny, 2011, p. 61). It should be noted that being “partially independent” of those factors means that anxiety stemming from not being prepared or not feeling proficient on the instrument does not qualify as having MPA. MPA usually manifests

¹ This sentiment is not only expressed by Kenny, but others as well. Similar concerns were expressed in a literature review by McGinnis and Milling (2005). Hoffman and Hanrahan (2012) also states a need for standardizing “behavioral and performance quality measures”. Sturder, Gomez and Hildebrandt (2011) state that a standard definition of MPA is lacking, as well as “a generally accepted measure of MPA”. Cox and Kenardy (1993) state there is a need for “more complete and valid assessment of performance anxiety”.

itself in cognitive (memory lapses, confusion, inability to concentrate or focus attention), somatic (increased heart rate, sweating, shaking, trouble breathing), and behavioral symptoms (poor coordination or execution of technique, tensing of muscles) (Kenny, 2011, p. 61).

The severity of MPA can also be impacted by the performance setting. It is more often severe when there is a high ego investment, evaluative threat, and a very real possibility of failure (Helding, 2016, p. 88; Kenny, 2011, p. 61; Parncutt and Mcpherson, 2002, p. 49). A setting that may elicit higher levels of MPA could be an audition for a position with a symphony, whereas an informal performance surrounded by friends would most likely result in lower MPA levels. Along those lines, a study conducted by Cox and Kenardy (1993) found that solo performances usually result in higher anxiety levels than when performing in a group. That said, performers can still suffer MPA when performing in groups, particularly if their position has more responsibilities. Examples of such positions include section leader, concertmaster, or being the sole performer responsible for the part.

Any form of anxiety has two components: trait and state. Individuals with trait anxiety have personality characteristics, which may be innate (ex. shyness) or learned (from previous experiences), influencing their susceptibility to stress (Parncutt and Mcpherson, 2002, p. 50). Those with state anxiety only experience anxiety in specific situations (such as in a competition or audition) (Kelly and Saveanu, 2005; Parncutt and Mcpherson, 2002, p. 50). One's experience of MPA may differ depending on whether the individual is more partial to trait or state anxiety.

MPA can affect all types of musicians (professional and amateur, regardless of genre) and often throughout their lifespan. It is also important to note that MPA can affect musicians of all ages and levels (Kenny, 2011, p. 49; McGinnis, 2005, p. 357). Having MPA does not

necessarily mean it will negatively affect performance quality; research has shown that some anxiety is beneficial to reach an optimal performance level (Kenny, 2011, p. 207; Parncutt and Mcpherson, 2002, p. 50). However, many musicians feel that it does negatively affect their performance quality. Furthermore, studies have shown MPA can be considered an “occupational stressor”, which increases the chances of suffering from other general health problems (Kenny, 2011, p. 51-56). These two reasons are why there is an increasing interest in research on effective treatment methods.

Manifestation of MPA

MPA will manifest itself differently for each individual. However, the question of how the somatic, cognitive, and behavioral symptoms, interact to elicit MPA is still relevant. Does experiencing those pre-performance jitters inform us that we are nervous or scared? Or is it the other way around, that knowledge of the impending performance is what makes performers nervous? Onset of MPA can be likened to the flight or fight response, only instead of a bear, the “threat” is the audience. This analogy can be used to explore the different ways MPA could be triggered.

The first scenario is that the performer sees the audience and registers it as a threat, prompting feelings of nervousness. The behavioral and somatic symptoms are a result of our cognitive awareness (Kenny, 2005, p185; Bradbury, 2008b). Unfortunately, it is not always this simple, as performers can feel nervous hours before the actual performance and even before they are in the performance venue and have yet to see or hear the audience, a.k.a the “threat.” This presents a second scenario: the somatic and behavioral symptoms come first, resulting in feelings

of nervousness, which contribute to evaluating the audience as a threat once the performer is on stage, perpetuating more symptoms of MPA (Kenny 2005, p. 185; Bradbury, 2008b).

Determining the exact origin of how MPA is initiated could be important when considering treatment methods. However, as research stands, this is yet to be definitively determined. Either way, all three processes create a vicious cycle and any treatment that is able to lessen the effects of MPA could be considered successful.

Treatments for MPA

Treatments aim to address one of the three main manifestations of MPA, and thus can be divided into three main categories - somatic, behavioral, and cognitive. Behavioral and cognitive treatments are often based on similar premises, but use different delivery methods.

Somatic Treatments

Somatic treatments try to lessen the somatic symptoms (elevated heart rate, sweating, shaking, shortness of breath... etc). A common treatment is the use of Beta Blockers. Beta Blockers reduce the effects of adrenaline by slowing the heart-rate (Mayo Clinic). Studies have found that some musicians use alcohol or other self-prescribed drugs such as Valium and Cannabis (Parncutt and Mcpherson, 2002, p. 51). A drawback of using these methods is unwanted side-effects (such as drowsiness or impaired cognitive function). Furthermore, if the anxiety is mostly a result of cognitive and/or behavioral symptoms, then Beta Blockers, alcohol, and/or other drugs may be ineffective.

Behavioral Treatments

Behavioral treatments aim to change dysfunctional behaviors that happen when we experience anxiety (Kenny, 2011, p. 180). A standard behavioral treatment is systematic

desensitization. This involves training in muscle relaxation paired with visualizing increasingly stress-inducing performance settings (Parncutt and Mcpherson, 2002, p. 52). Other behavioral treatments use progressive muscle relaxation, breathing exercises, and behavioral rehearsal.

Cognitive Treatments

Cognitive treatments aim to change faulty thinking patterns that can lead to dysfunctional behaviors (Kenny, 2011, p. 182). This is accomplished through cognitive restructuring, which replaces negative, unproductive, and doomsday thoughts with self-affirming thoughts, aiming for a more objective and rational approach to problem solving (Kenny, 2011, p182; Parncutt and Mcpherson, 2002, p. 53). Stress inoculation is one type of cognitive treatment. This entails articulating realistic expectations of what will be experienced during the performance and acknowledging them as normal (Parncutt and Mcpherson, 2002, p. 53). Other treatments include positive self-talk and mental rehearsal of the performance.

Alternative Treatments

Other alternative treatments for MPA include Biofeedback, Alexander technique, Ericksonian resource retrieval, and Hypnotherapy. Unfortunately, each method was only used in one or two studies, so results are inconclusive (Kenny, 2005).

While the amount of research on MPA is growing, it has not been determined whether one treatment method or a combination of treatment methods is superior to another. However, all studies found that any treatment is better than no treatment at all. It is also worth noting that since all individuals have different levels of MPA and work in a wide variety of settings, there may never be one type of treatment that works for everyone. Given this, the best outcome would

be for each musician to find the treatment method that works best for their situation. This is what I hoped to achieve by undertaking this project.

Methods Employed

A requirement of my major (Music Performance on Violin) was to give an hour-long recital, which took place on May 21st, 2017. I had approximately 7 weeks to prepare for my recital. In conjunction with learning and practicing the music, preparation included applying Cognitive, Behavioral, and/or Cognitive-Behavioral Treatments (CBT). The goal was lowering my MPA to a level that benefitted my performance ability, specifically for my recital. I randomly assigned each treatment to one of the pieces that was on my recital program. Although I did not practice every single piece on my program every single day, I applied each particular treatment before or while I practiced the piece it was assigned to. Below is an explanation of each specific treatment and how I implemented them.

Centering - Paired with Brahms Violin Sonata No. 3 in D Minor, 1st Mvt.

Centering is similar to meditation and can be categorized as a cognitive exercise. The goal of Centering is to give more control over the level of energy we feel and our ability to focus attention on a specific task. One can Center Up or Center Down. For example, by lowering the amount of nervous energy felt before or during auditions (Centering Down), or by raising energy levels during rehearsals or practice sessions (Centering Up). The idea is to get to an energy level that is optimal for performing. This concept was developed by Don Green, who began as an expert in Sports Psychology and has adapted his methods for performing artists. In his book *Performance Success*, he explains why Centering is effective and details the steps needed to master Centering.

Centering (up or down) is a way to help the brain switch from left side thinking to right side thinking. This is important because the left brain is responsible for our analytical thoughts, reasoning, and logic, a.k.a. the inner dialogue and thought processes that happens during a performance. When stressed, it is easy to let left brain thinking dominate; this can often result in thoughts becoming more scattered and any negative self-criticism becomes all-consuming. This causes the performer to lose focus or tighten up, resulting in a poorer performance outcome. On the other hand, the right brain is responsible for our creativity, imagination, and abstract thoughts. Right brain thinking allows the performer to focus on aspects of the music, such as sound quality and what emotional response the music should evoke. When performing, the key is to find a balance between right brain and left brain thinking.

How to Center

The following steps on how to Center are from Don Greene's instructions in his book *Performance Success*.

Step 1: To Center, begin in a grounded, balanced position. This could be sitting or standing, but the position should feel natural and relaxed. The head may be tilted downwards. If standing, the feet should be shoulder-width apart with arms hanging at the sides. If sitting, feet should be planted so if you were to stand, it would be in one fluid motion. Hands can rest on the lap.

Step 2: Form an intention - what do you hope to accomplish by Centering? The intention could range from "learn how to Center" to "having a good bow arm when I play" to "you will perform Brahms Sonata in D Minor well at your recital".

Step 3: Pick a focus point you will direct attention and energy to. This point could be anywhere in the performance or practice space, as long as it is below eye level.

Step 4: Close your eyes and concentrate on your breathing. Each breath should be deep - in through the nose, out through the mouth. With each breath, check for tension in the body. Take as many breaths as needed until you feel calm and focused on your breathing, the mind clear of extra thoughts.

Step 5: Find your Center by thinking about where your center of gravity lies. It should be approximately two inches below the navel. Once again, the purpose is to have a solid foundation. When under stress, one's center of gravity usually goes up. The higher up the center of gravity, the more unbalanced we are. Once you find your Center, continue to breathe for 3-7 breaths.

Step 6: Once you feel Centered, recall your intention - this will be called a process cue. Repeat this process cue to yourself as you continue to breathe. It may help to coordinate your breathing with each repetition of your process cue. You should feel a shift from left brain to right brain thinking.

Step 7: Start imagining yourself executing your process cue. If the process cue is "smooth string crossing", imagine yourself playing with smooth string crossings. Try to feel a connection between the process cue and your center. Lastly, direct your energy at the focus point you chose. Feel your energy collect at your center and then bring it up and out, directing it at that focus point. Open your eyes and make this intention a reality.

Implementation

The first week was devoted to learning how to Center. Greene recommends practicing Centering 3-10 times a day, for 7 days; initially it should take 30 seconds to 2 minutes (Green,

2002, p. 45). Ideally, Centering was practiced before each practice session of Brahms (Table 1). The effectiveness of this method was determined by how well I felt in control or how quickly I gained control of any nervous energy before my recital.

Focus and Concentration- Paired with Mozart Violin Concerto in D Major, 1st Mvt.

This qualifies as a CBT where the goal is to achieve a state of heightened awareness and focus on the present moment. Being 100% focused on the present moment is harder than it sounds. When practicing, it can be easy to practice on “automatic pilot”. This is when you are merely going through the motions of playing, but are not actively thinking about what or how you are practicing. For example, on automatic pilot mode you may play through a difficult passage repeatedly, hoping that repetition may fix any problems. However, this will most likely not fix the problem unless you identify *what* is difficult about the passage and work on that. Thus, being able to practice with good focus and concentration is important if one hopes to improve.

Good focus is also crucial when performing. In his book, Greene touches on the importance of concentration; awareness of what is happening in the moment gives us more time to adjust and make quick decisions. For example, with intonation, the higher our awareness, the more quickly we can adjust if a note is out of tune. Furthermore, good focus helps block out other distractions, such as noise from the audience, that can potentially make us mess-up.

The practice of improving one’s focus falls under the umbrella of Mindfulness-Based Stress Reduction (MBSR) techniques (Kenny, 2011, p. 189). An important aspect is being able to accept what is happening in a non-judgmental mindset, detached from strong feelings or thoughts (Kenny, 20011, p. 189). For example, after a mistake, acknowledge that it happened, but refrain

from judging it as “good or “bad”. W. Timothy Gallwey, author of *The Inner Game of Tennis*, claims that these type of self-judgments set in motion a thought process which, more often than not, becomes self-fulfilling (Gallwey, 2015, p. 19). Greene also claims that once we are aware of the types of thoughts we have while performing, we can then train ourselves to not fall into thinking in unproductive ways. This relates to the next type of Cognitive therapy - positive self-talk -which will be discussed below.

Implementation

Don Greene devotes a segment of his book on how to improve one’s focus and concentration. One way of doing this is to construct a mental boundary around yourself that only you are allowed into - any distractions must stay outside the boundary. Greene recommends varying the area your boundary encompasses, as well as the types of possible distractions. I kept a record documenting the area my chosen boundary encompassed and distractions that occurred while I practiced (Table 2).

Another component of concentration is the duration - how long concentration is sustained while playing. The length of time I concentrated varied. Initially, my focus was for half a page or one full page. My goal was to eventually maintain concentration for the entire piece. In addition, I also documented which sections of the piece I chose to maintain concentration for and how successful I was (Table 2).

Self-talk and Self-Confidence - Paired with Bach Partita No. 1

Doomsday thinking, negative self-talk, and unnecessary self-criticism, can have a more detrimental effect on performances than we realize. Studies have shown catastrophic thinking before and during performances usually correlate to higher anxiety levels (Kenny, 2001, p. 185).

Furthermore, this way of thinking can be self-fulfilling, resulting in a poor performance.

Breaking the habit of negative self-talk first requires us to be aware of our thoughts. Greene suggests playing through a piece and then writing down what thoughts went through our heads (Greene, 2002, p.50). Once we are aware of negative thoughts, we can replace them with more positive ones. For example, instead of thinking “your intonation is terrible”, think “be mindful of your intonation”. The difference is subtle, but it removes judgment and replaces it with a more useful self-directive. One can also make a habit of consciously thinking positive thoughts before a performance: “you will play great and it will be fun” or “mistakes are ok, you will learn from them”.

Implementation

I chose one or two positive phrases to tell myself before each performance, as well as identifying any negative thoughts I had while practicing or performing and replacing them with positives one. To help me be more conscious of my thoughts, I recorded some of the thoughts, positive and negative, I had while practicing or performing.

Visualization and Mental Rehearsal - Paired with Vitali’s Chaconne in G minor

Visualization is a cognitive-behavioral treatment where one mentally envisions themselves completing the task at hand. The task could be as small as playing a few measures of music, to mentally rehearsing an entire performance. This exercise requires one to mentally go through every single step needed to execute a desired task, such as envisioning yourself walking out on stage and putting the music on the stand, or, for a challenging passage, thinking about how your fingers and bow must interact for each note to execute the passage. Multiple studies

have shown that mental practice can help master motor skills and, in combination with physical practice, usually results in better performances (Kenny, 2011, p. 216).

How to visualize

Take a passage and imagine yourself executing it. Most likely you will choose a passage you find difficult. Start at the beginning of the passage. Which finger(s) on which string(s)? Is it an up bow or down bow? What is the dynamic and articulation? You will need to practice it very slowly. Panella (2014) recommends imagining how you want the passage to sound. It may help to think of a recording you have heard and imagining yourself sounding like that. The idea is that imagining yourself playing it perfectly will help when you actually play it.

Implementation

I employed mental practice with passages I found challenging. I would record what passage and the number of times I mentally rehearsed the passage (Table 3). The duration of the mental practice was however long it took to mentally go through the passage. At least one difficult passage was mentally rehearsed per practice session.

Exposure - Applies to all pieces

The idea is that frequently performing will help acclimate the performer to the general feeling of performing. I did not come across any studies that specifically explored this as a treatment option, however, I felt like it was worth trying. This would most likely be considered an alternative approach for treating MPA.

Implementation

I plan on implementing exposure by picking a different piece from my recital program each week and performing it weekly in studio class.

Results and Discussion

Centering

Centering was paired with the Brahms Violin Sonata No. 3 in D Minor (Table 1). The first week was devoted to learning how to Center. Even though Centering only takes a couple of minutes, like starting any new habit (exercising regularly or eating healthy), I found I was not consistent in doing it every day.

In general, I Centered before each time I practiced Brahms. Exceptions were when I rehearsed Brahms with my accompanist, as it was not always appropriate, or it had slipped my mind due to other distractions. One time I began practicing before realizing I had forgotten to Center. In this case, I forced myself to stop practicing, Center, and then continue practicing. This was not as easy as it sounds, as I dislike interrupting my practice once I begin.

I found that Centering was useful in focusing my attention completely on Brahms. Although Greene says that once you accomplish Centering it could take as few as 10 seconds, I found I enjoyed setting aside at least 2 minutes to Center. I always began Centering by first focusing on my breathing and checking muscles for stress. This helped clear my mind of other distracting thoughts. I discovered that I hold a lot of tension in my shoulders and upper chest, which was definitely not ideal for performing. Once I was sure I was focused solely on my breathing, then did I form my intentions and think of the process cue. Process cues ranged from focusing on string crossing, rhythmic awareness, and sound quality. There was definitely a noticeable difference in the quality of my practice sessions.

On one occasion, I tried Centering before a concert given in front of my fellow music students². I was pleasantly surprised that I was able to slow my pounding heart, which in turn made me feel calmer. Unfortunately, this was a bit short lived, as my heart rate once again increased as I walked out on stage. However, this was still considered a victory as, in the past, I had been unsuccessful in slowing my heart rate.

Curiously, before my recital, I was not as nervous as I anticipated I would be. The energy I did have was more from excitement than nervousness. Thus, the process cue when Centering was more affirmation that I would perform well instead of trying to calm myself down. I think Centering proved to be an overall useful technique, particularly for having productive practice sessions. As gaining expertise in how to effectively use Centering requires practice, the majority of the times I Centered was not before a performance, but before practice sessions when I was already calm. In the future, I will apply Centering in a wider variety of performance settings and when I am already nervous, such as before an audition, to actually experience the effect it has on my performance anxiety.

Focus and Concentration

Developing my focus and concentration was paired with the Mozart Violin Concerto No. 4 in D Major (Table 2). This was both easier and harder than I had expected. It was easier in the sense that I happened to be in the process of memorizing this piece. In that context, I was more invested in maintaining my focus whenever I practiced. A lapse in focus usually meant a memory lapse. It was easy to block out noises that were consistent: at school, the sounds of others practicing in their practice room, and at home, the sound of my parents in the kitchen or

² The piece I was performing was not Brahms but a Handel-Halvorsen Passacaglia

walking down the stairs. What easily broke my concentration were abrupt noises, such as the sound of a door slamming. Likewise, sudden movements were also more distracting. Once, I practiced near a window and found myself looking up every time someone passed by on the sidewalk.

I also stumbled upon an interesting observation. My father enjoys listening to me practice, however sometimes he likes to tap along to the music. Unfortunately, he is not a musician, so the beat he tapped did not always match the internal beat I was trying to maintain for rhythmic purposes. Similarly, it was distracting if there was a clock that was ticking to a different beat than the one I was trying to keep. Whenever this happened, it often interfered with my playing.

According to Greene, a component of improving one's focus is to draw a boundary around oneself. I found this component harder to execute. It was hard to maintain my imaginary boundary, not necessarily because of other distractions, but because I found it difficult to remember exactly where I had drawn my boundary while also focusing on my playing. If I did remember, it took a lot of mental energy to separate the space within the boundary from the space outside the boundary.

On occasions that I performed for my peers, it was easier to make this separation. I think because in those situations, there was more of a physical boundary of where the stage and audience met. Likewise, the smaller the space, the easier it was to maintain my boundary. For example, the practice rooms at Portland State University are quite small - often my boundary was the practice room. It helped that there was physical representation of my boundary - the walls and door of the practice room. Furthermore, the practice rooms are sparse (one piano and

possibly a chair). I found that the more objects there were in the room (like the living room in my house), the harder it was to distinguish where I had drawn my boundary.

It was not until very late in this process that I discovered it helps if my boundary is not a pre-determined space around me, but a malleable bubble that encompasses me. A fixed boundary made me feel more stuck, like I was not allowed outside it. However, a malleable boundary meant I could adjust it whenever I wanted to.

Reflecting on this idea of drawing a mental boundary, I came to contemplate the possible pros and cons. The pros are feeling more secure and having an increased ability to ignore distractions. Feeling secure, confident, and focused, are essential for a convincing performance. The con is that feeling too detached from the audience could create another problem. This problem arises if you consider the inherent meaning of giving a performance. What I mean is that when performing music, the intention is to share the music with the audience. There is a possibility that putting up a boundary, even if it is imaginary, could inadvertently get in the way of the performer accomplishing this. I think more performance experience would be needed to explore this further.

Lastly, I think the reason why having a boundary may help is because, as a performer, there is the fear of how the audience will react and how our performance will be received³. In a way, having a boundary almost suggests that there is a possibility the audience will attack if the performance is poor. Of course, this is very unlikely to happen. Thus, this type of worrying originates from within our minds, not due to previous experience of being attacked (verbally or physically) by audience members. Personally, most of my anxiety comes from within, so I

³ Excluding “performances” like auditions where the performer knows their performance will be judged.

wonder if imagining a boundary is only effective to a certain extent. No matter how good or strong my imaginary boundary is, this type of boundary cannot block out my thoughts.

That said, at my recital, I felt I was able to block out distractions from the audience very well. There was a photographer who walked around taking pictures while I played, which I was not aware of while I performed. After my recital, I was also informed a child had uttered an exclamation during one of the pieces and I do not recall noticing that while I performed. Lastly, I felt I was able to put myself and my pianist into a bubble while the audience remained outside that bubble, allowing me to focus more on the music than the audience.

Visualization and Mental Rehearsal

Visualization was paired with Vitali's Chaconne in G minor (Table 3). I found this was the most difficult to execute. When you visualize, you need to imagine the exact finger, bow direction, and string you need to produce each note. Essentially, the passage needs to be memorized. The first time I attempted mental rehearsal, I got to the second note and could not remember where my finger needed to be. I could hear the note and passage in my head, but was not completely confident that I was imagining myself playing it correctly. Furthermore, one argument of using mental rehearsal as a tool is that you have the luxury of imagining yourself playing it correctly every single time. To my surprise, I realized I would get two bars into the passage and then doubt that I had correctly envisioned myself playing it. In addition, even though I was not actually playing, I still found myself thinking "are you sure you imagined yourself playing that in tune?". I can hear the piece correctly, in tune and with musical expression. However, as soon as I tried imagining myself playing it that way, I would begin to doubt myself.

The more I practiced visualizing, the easier it got. One reason was because the passages I picked were often the same. With repetition, I eventually memorized the notes and was able to focus more on sound quality and imagining how it felt to play that passage - the shape of my hand in relation to the violin or the feeling of the strings beneath my fingers. In addition, the more I familiarized myself with the piece and listened to recordings of other musicians playing it, the easier it was to imagine how I wanted it to sound.

Another aspect I could explore more with visualization is imagining that I am watching myself play. Mostly when I employed this technique, it was from a first person perspective. Reflecting back, I realized when I visualize, I would always concentrate on the left hand and forget about the right hand (bow arm). This is something to be aware of in the future.

I also applied visualization to mentally imagine the beginning of my recital - how I would walk on stage, see the audience, and how I may feel (nervous and excited). Ultimately, I felt this was a good way to prepare myself and resulted in me being less nervous at the real event.

Self-Talk and Confidence

Self-Talk and Confidence was paired with Bach Partita No. 1. Bach can be technically very challenging, so it was easy to get wrapped up in worrying about hitting the right notes, opposed to playing musically. Something I have been told a lot recently is when we go to perform, we have to forget about all of the nitty-gritty practice details and play like our life depends on it. In a performance, you should also be focused on how you want to present the music to your audience, not only on executing the technique. Thus, the phrases I chose to repeat to myself were variations of trusting the practice I had put in. 1) Trust yourself 2) You have put in the practice, now it is time to play!

In one informal performance of Bach for a friend, I was having difficulties in the middle of the piece. I found my thoughts turned to berating myself, such as “why can’t you play this? You can play this better. Pull yourself together”. The end result was that I was completely absorbed in my thoughts and was not paying any attention at all to trying to fix the problem. I found that more productive things to tell myself were along the lines of, “take a breath”, “slow down”, or “remember to take time here”. Giving myself specific instructions helped gather and focus scattered thoughts.

I also noticed the type of internal dialogue I had varied depending on my attitude towards the upcoming performance. During performances where I perceived myself as being judged more harshly (such as performing in front of peers or teachers), the internal dialogue would be more critical and self-deprecating. In contrast, during performances which I felt more relaxed about, such as performing in a retirement home or for close family where I knew the audience would most likely be very appreciative, the internal dialogue was more forgiving and useful. The more relaxed I was, instead of berating myself after a mistake, I would tell myself to move past it and focus on the current measure I was playing.

In regards to confidence, I strived to keep my thoughts positive whenever thinking about an upcoming performance (whether this be playing in studio, playing in front of the music school, or informal performances for friends). Previously, I would imagine the worst possible outcome, with the idea that by having extremely low expectations, whatever the quality of the resulting performance, it would be better than I had imagined and thus I could not be too disappointed. Of course, this is flawed thinking. Throughout this process, I have been more

conscious of telling myself “you will play well/do great”, “you have prepared well”. Particularly whenever my thoughts turned to my recital, I was careful to try and think positive thoughts.

There is one movement of Bach I find very difficult and stress out about the most. During my recital, before I began the movement, I made sure to tell myself those chosen phrases of “Trust yourself” and “you can do it”, as well as some instructive advice such as “remember to breath and take your time there”. I think this reminder proved helpful because my overall execution of this movement ending up being better than I had expected.

Exposure

This treatment was not assigned to any specific piece, instead I performed all my pieces at studio class in front of my peers. I felt this had the biggest impact. Previously, performing would make me feel almost sick with nerves. I would constantly be counting down to when it was my turn to play. My heart pounded and, when I did play, I felt that all the hard work (and any knowledge about playing music - like how to count rhythms) flew out the window. Over the past few weeks I have realized that performing for my peers does not terrify me as much, on some level, I even look forward to the opportunity. Of course I still get a little nervous, but I have found that after a few lines of music, I am able to block out some of those nervous feelings and concentrate on my delivery of the piece.

Playing more frequently in front of my peers has also revealed to me habits I never realized. For example, I stop breathing. Of course, I do not actually stop breathing, but I never fully exhale or inhale. After realizing this, I wrote “breathe” strategically throughout my music and it serves as a reminder. When I did breathe, I realized how much tension I was holding in.

In relation to exposure, recording and listening to myself play has benefits. This is a tool that my teacher strongly suggests. Apart from the fact that this method helps to identify areas that still need improvement, I have found that I often do not sound as bad as I thought I did. This gives me more confidence that I can play the music and that it does sound okay.

Once my recital came around, I felt more confident because I had already performed each of my pieces. The hardest performance is always the first time you play a piece for others, so it was good that at my recital, it was the third or fourth time I had performed each piece for others.

Lastly, experience performing helped me discover the things I absolutely need to do to ensure a good performance, such as warming up and reviewing difficult passages. Over time and with more experience, I can see myself developing a pre-performance routine.

Audience perception of performance quality

I conducted a short survey of audience members at my recital (Figure 1). The survey asked audience members to choose a piece they thought I played with most confidence and which piece they found most musical. It was okay if the same piece was used to answer both questions. To my slight surprise, Vitali came in first for both categories, with Brahms taking second place, Mozart came in third, and Bach was last (Table 4). There are a variety of explanations which I will discuss below. It is difficult to determine how much these results can be attributed to applying the MPA methods or other factors.

The easiest explanation is that compared to Bach and Mozart, Brahms and Vitali are both pieces that had a lot going on, i.e. they were more dramatic and exciting pieces. This impression may be particularly true for an audience who are not musicians and do not necessarily listen to classical music often. Another explanation is the level of personal attachment I felt towards the

piece. I particularly like the Vitali piece and this may have come across to the audience, affecting how musically I played.

Perhaps mental rehearsal and Centering had more of an effect than I initially assumed. At the very least both of these methods helped focus practice sessions, which factored into how well I was able to prepare the pieces. This is exactly why I thought it would be interesting to conduct a survey, as I thought self-talk and confidence would have had a more significant impact on my overall performance quality.

I was not surprised that Mozart did not rank very high. I felt my focus and concentration had improved and I did not find the audience threatening. However, I think performance pressure was still significant enough for me and I was not yet be able to overcome it.

Limitations

This study only had one test subject (me) and the evaluative methods were rather subjective. While each method was assigned to a specific piece, there was no way to control for the varying levels of difficulty of each piece. The pieces themselves also presented different types of difficulty - technical versus stylistic. Furthermore, as the weeks progressed, I became more familiar with my repertoire, increasing my confidence while playing. Thus, a good performance could be attributed to good preparation or other external factors, and not the treatment.

Another factor to consider is that the audience members who completed the survey were not all musicians. A musician and non-musician most likely answered those questions differently, particularly the question that asked which piece they found most musical. Performing

for an audience that is exclusively non-musicians and performing again for an audience that is exclusively musicians may yield different results and would be something interesting to explore.

For this particular project, I would argue that a perceived benefit from a particular treatment is just as good as an actual benefit. Even though self-talk and confidence did not seem to prove as beneficial to performance quality as I had hoped (according to the audience survey), positive self-talk definitely helped me feel better going into the performance. That alone is reason enough to continue doing it. Finally, more practice applying these methods in performance situations, when I am already nervous, would be less abstract and as a consequence, more helpful.

Conclusion

In conclusion I would say that each treatment had some positive influence on my performance ability. Having a variety of treatments also meant different aspects of performance anxiety could be addressed. The ones I felt most effective were Exposure, Centering, and Self-talk. I would need to work more on Centering. At this stage, it was most useful as a technique to focus my practicing.

Conducting this project revealed to me a lot about my own tendencies when I perform and how I think about performance. A big revelation was that I had previously attributed a lot of my performance anxiety to external factors (who is watching, and what is at stake), when in reality it stems from internal ones. Those external factors will always be a cause for anxiety, however it accounts for a smaller percentage of my anxiety than I had initially assumed. I now have a better understanding of how anxiety affects my playing and how to address it.

Due to the nature of MPA, it will continue to be a lifelong challenge and I expect finding the right treatment method will also be a part of my ongoing development. What works for me now as an undergraduate musician may not work as well when I am in the middle of my career. Nonetheless, finding a way to combat MPA now is still crucial and going through this process will hopefully become invaluable later in life. I hope this study will inspire others to begin exploring possible ways to go about finding and executing different possible treatment methods. By going through this process, they will hopefully be able to discover which treatments are most helpful for them.

Table 1 Centering

* Each time, I would check all major muscle groups. Particular my upper body - shoulders and chest - as I discovered that is where I hold the most tension

Date	Intention	Muscles*	Process Cue	Observations/comments
4/3	Learn how to Center	All major muscles	Focus on breathing	Hard to clear mind of all distracting thoughts
4/3	Learn how to Center	All major muscles	Focus on breathing	None
4/4	Learn how to Center	Relax upper body	Clear mind	Was laying down, less effective
4/5	Learn how to Center	Shoulder/chest	Clear mind	Hold more tension than I thought
4/5	Learn how to Center	Entire body	Clear mind	None
4/5	Learn how to Center	Upper body	Breathe	None
4/7	Learn how to Center	Shoulder/chest	Breathe	Felt I understood what it means to be "at Center"
4/7	Learn how to Center	Shoulder/chest	Clear mind	None
4/8	Learn how to Center	Shoulder/chest	Breathe	None
4/9	Good rhythm	Shoulder/chest	Subdivide	Made self think in 8th notes
4/13	String crossings	Shoulder/chest	Anticipate w/ Bow arm	Practiced open strings
4/14	Good Rhythm	Shoulder/chest	Hear piano part	Listening to recordings help
4/19	Rhythm	Shoulder/chest	Back of beat	None
4/22	Intonation	Shoulder/chest	Intonation	None
4/24	String Crossings	Shoulder/chest	Smooth Bow arm	Forgot to Center at beginning
4/27	Dynamics	Shoulder/chest	Contact point	Louder Forte
4/30	Sound quality	Shoulder/chest	Fat/full sound	Very difficult to clear mind when stressed
5/2	Clarity	Shoulder/chest	Take time on shifts	Picked out specific spots to focus on
5/4	Calm nerves	Shoulder/chest	Breathe deeply	Pleasantly surprised to be able to slow heart rate
5/6	String Crossings	Shoulder/chest	Bow speed/pressure	None
5/9	Rhythm	Shoulder/chest	Subdivide	Rushed Centering - not a very focused practice

5/11	Sound quality	Shoulder/chest	Fat sound	Think like Oistrakh
5/14	Rhythm	Shoulder/chest	Subdivide	none
5/17	Dynamics	Shoulder/chest	Bow division	none
5/18	Clarity	Shoulder/chest	Careful on shifts	none
5/20	Play with character	Shoulder/chest	With emotion	none
5/21	You will perform well	Shoulder/chest	Play!	none

Table 2 Focus and Concentration

Date	Location	Boundary	Section worked on	Distractions	Concentration rating	Observations/Comments
4/4	Home: living room.	Around self	Last two pages	Minimal: father reading = quite	Very focused	Hard to maintain boundary and focus on music. Very focused on music, forgot where boundary is
4/5	Home: living room	Around practice area (self, stand, table/couch w/ music on it)	Last 3 pages	Father tapping along (incorrectly)	Poor focus	Extremely distracting - hard to block
4/6	Practice room - Basement	Practice room	Cadenza	Minimal: usual background noise of others in practicing	Very focused	Boundary easier to maintain when it is a physical room
4/9	Home: living room	Half of living room	First 3 pages	Parents at home	Moderately Focused	Sudden noises disruptive, consistent noise easy to block out.
4/12	Practice room: cramer	Practice room	Entire piece	Moderate: cramer more echoey - can hear everyone	Moderately	Able to block out fairly well.
4/14	Home: living	Practice area	First 6 pages	Parents at home - mom	Moderately focused	Trombone is consistent, not too distracting

	room			practicing trombone		
4/18	Home: living room	Entire living room	Last page of cadenza	None: Home alone	Very focused	None
4/20	Home: living room	Entire Living room	First page of Cadenza	Minimal: Have living room to self	Very focused	None
4/22	Home: living room	Forgot to set one	First 3 pages	Phone - waiting for a friend to respond	Poor Focus	Prove importance of putting electronics aside
4/23	Home: living room	Around self	Entire Piece	Moderate: Parents sitting in living room, but are quiet	Moderate Focus	Comfortable playing in front of parents which is good
4/26	Practice room - cramer	Practice room	Beginning	Minimal: noise of others practicing - easy to block out	Moderate Focus	Sound of other violins more distracting than other instruments
4/30	Home - living Room	Around practice area	Cadanza	Minimal: Living room to self, parents elsewhere in house	Very focused	None
5/7	Home - In living room by front window	Around self and music stand	Last 2 pages and Cadanza	People walking by outside	Moderate Focus	More distracted than I thought
5/9	Practice room - cramer	Around self	Entire piece	Minimal - sound of others practicing	Good focus	None
5/10	Practice room- Basement	Practice room	16th note passages	Minimal - others in practice room	Good focus	None

5/12	Home - living room	Around self	Entire Piece	None: Home alone	Very focused	Specific goal - learn entrances
5/13	Home - living room	Around self	Entire Piece	Minimal: mom practicing trombone	Good Focus	Boundary is bubble around self versus circle on floor
5/15	Home - living room	Around practice area	Entire Piece	Minimal	Very focused	None
5/17	LH 75	Stage area	Entire Piece	Minimal - two friends	Very focused	Felt good to practice performing on stage. Easier to block out "audience" than I thought
5/18	Home - bedroom	Entire room	Entire piece	Minimal: everyday neighborhood noise (windows open)	Very focused	Most comfortable boundary b/c bedroom is already my own space
5/19	Home - living room	Self	Entire piece	Moderate - family visiting	Moderately focused	Concentration broken with worries about upcoming recital
5/20	Home - living Room	Self	Entire piece	Moderate - family visiting	Good focus	Performed for family

Table 3 Mental Rehearsal

Date	Passage	Number of times	Observations/Comments
4/2	Rehearsal #16	3	Very hard to get past first couple notes, trouble remembering what notes
4/7	Rehearsal #16	2	A bit better, still struggling to remember notes
4/11	5 measure after Rehearsal 20	3	Trouble imagining myself playing it in tune
4/13	Rehearsal #16	4	Can get half way through passage before forgetting
4/18	2 measure before Rehearsal #19	4	Easy to go too fast, had to force self to slow down

4/20	Rehearsal #16	1	Tried visualizing while looking at music
4/24	Rehearsal #16	2	None
4/28	Rehearsal #16	3	Can finally get through passage
5/1	5 measure after Rehearsal #20	3	None
5/7	4 measures after Rehearsal #1	2	Tried to imagine feeling the shift
5/8	Rehearsal #16	3	None
5/11	5 after Rehearsal #7	4	Feel 4th finger extension
5/12	5 after Rehearsal #9	2	None
5/14	Rehearsal #16	1	Imagine with grandiose character
5/17	5 Measures after rehearsal #20	2	Imagine with full sound, not tight sound
5/18	Rehearsal #12	4	Tried to feel the shift and with tenderness
5/19	Rehearsal #16	2	None
5/20	5 Measure after Rehearsal #20	3	Don't forget to bring elbow around

Table 4 Results of Audience Survey

	Mozart	Bach	Brahms	Vitali
Most Confident	5	2	6	21
Most Musical	4	1	9	23

Figure 1 Audience Survey

Hi, along with my recital, I am writing a thesis on music performance anxiety. This involved trying different methods to cope with performance anxiety, which were applied as I prepared for my recital. I would very much appreciate it if you would help me! (Answers may be anonymous)

- 1) Which piece did I seem most confident on (seemed least nervous playing)?
- 2) Which piece did you find most musical?

*it is ok if the answer to both questions is the same piece

**the Passacaglia is NOT an option

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