A Quiet Mind: The Key to Musical Performance

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Introduction

If you multitask, you will succeed in today's frenetic world. That is what we have been conditioned to think. We text while we drive, watch television when we study, and scroll through our Facebook feed when we are talking with friends. We have much to do, and try to accomplish everything at once. Musicians often try to multitask while practicing their instruments. They think about breathing, articulation, jaw movement, finger technique and more. However, research has proven that multitasking is highly inefficient. According to Christine Rosen in "The Myth of Multitasking," time is lost while the brain decides which task to perform (107). Practicing with a 'quiet mind' will lead to peak performance and avoid the pitfalls of trying to concentrate on many things at once.

For this thesis, a 'quiet mind' refers to the peaceful mindset that allows one to consistently focus on a single thing for an extended period of time. I draw on material from *The Inner Game of Tennis* by W. Timothy Gallwey, *Psycho-Cybernetics* by Maxwell Maltz, *Zen in the Art of Archery* by Eugen Herrigel, and others to explain why we need to attain this mental state during musical performance and how to attain it. I will show how the application of the techniques described in these books can help musicians "concentrate without thinking," as Gallwey writes. Once I have explained how to arrive at a quiet mindset, I will describe how this mindset enhances performance. If musicians practice with a quiet mind, they will perform with a quiet mind. If they perform with a quiet mind, they are free to play as well as they can imagine.

Literature Review

In 1960, Maxwell Maltz published his book, *Psycho-Cybernetics.* As a plastic surgeon, he noticed remarkable changes in his many of his patients' personalities after facial defects had been corrected (6). He delved into the study of cybernetics to find out why; cybernetics is generally known as the study of goal-oriented mechanical systems (viii). He found that the subconscious is a goal-striving mechanism steered by one's conscious mind. The subconscious accepts mental pictures, either real or imagined, as its goals. Our "thoughts, beliefs, [and] interpretations" build these images while the subconscious processes these goals and gives us an "answer in the form of objective experience" (13). Maltz applies the science of cybernetics to psychology in order to help his clients become happy and successful in achieving their particular goals. He observed that when some of his patients had scars removed by plastic surgery, their self-images changed from inferior and ugly to wholesome and beautiful, and they were completely changed and successful individuals afterwards. He realized that the self-image is a mental picture fed to the subconscious. If this is a poor, unworthy image, the subconscious acts as a "Failure Mechanism" rather than a "Success Mechanism." Maltz describes in his book how to alter one's self-image in order to become successful and happy (13). While *Psycho-Cybernetics* helps one become a better overall individual, we can apply Maltz's theories to performance situations, like music.

W. Timothy Gallwey maintains in the *Inner Game of Tennis* that humans have two 'selves': 'Self 1' and 'Self 2.' Self 1 is the conscious mind, the voice that tells one what to do,

while Self 2 is the subconscious, or the self that performs an action. Gallwey asserts that one can attain a quiet mind only when these two selves are in harmony (14). This harmony is difficult to attain. Humans tend to let Self 1 tell Self 2 what to do or how to do something. Self 1 is constantly judging one's actions and associating them with "good" or "bad." If bad, Self 1 may make a negative comment to Self 2 or try and instruct Self 2 how to fix the action. However, this leads to what Gallwey calls "trying too hard" (36). Overloading Self 2 with judgement and information is detrimental to performance because it causes one to multitask, which decreases brain efficiency. Gallwey asserts that Self 2 already knows how to perform an action or will learn how to do so without commentary from Self 1. Therefore, harmony occurs when Self 1 trusts Self 2 to perform the action, when one can concentrate without thinking. Gallwey restricts his discussion of the dueling inner selves to tennis; however, this logic can be applied to any performance situation, including music.

Eugen Herrigel spent six years in Japan. Intrigued by Zen, he wanted to "throw light on the nature of Zen" as it relates to archery. He studied archery with a Zen master and published an account of his course of study in *Zen in the Art of Archery* in 1953. From the beginning of Herrigel's studies, he learned to practice with a quiet mind. When practicing drawing the bow, the master instructed him to only focus on his breath because he was thinking too much about *how* to draw the bow (40). He was constantly reminded to remain relaxed when drawing the bow and simply *let* the hands do the work without exerting "the full strength of [his] body" (35). This

notion of letting go, of letting one's body do the work it knows how to do, is one of the key ingredients of a quiet mind.

At the end of *Zen in the Art of Archery,* Herrigel briefly addresses another Japanese art—swordsmanship—in order to demonstrate that the Japanese arts have always been under the influence of Zen. There is a common misconception that these arts only recently adopted the nature of Zen in their teachings because people no longer partake in "man-to-man contests," fighting each other with weapons (94). Herrigel maintains this is untrue and that Zen has always been connected to the Japanese arts. In other words, archers and swordsmen practiced and performed with a quiet mind in ancient times to achieve their goal—to not get killed by someone else. For them, a quiet mind was not only spiritual but practical. I am not suggesting that musicians must practice Zen, but we can work to attain a similarly quiet mind and apply it practically to musical performance and practice.

Staying in the theme of Zen, Buddhist monk Thich Nhat Hanh is one of the foremost teachers of mindfulness and peace in the West ("Thich Nhat Hanh"). In the words of the editor Arnold Kotler, Hanh's book, *Peace is Every Step,* is "a book of reminders" (xiv). He takes simple situations from everyday life and describes how to stay in the present moment despite the rush and stress in our lives (10). He reminds us to be conscious of every breath, for the breath connects the body and mind (9); mindful breathing helps us relax and rid our minds of worry (11). These seemingly simple, but exceedingly difficult tasks are the foundations of a quiet mind.

Peace is Every Step urges the reader to practice mindfulness in everyday life, but we can apply this everyday mindfulness to musical performance.

In *The Organized Mind,* cognitive psychologist Daniel J. Levitin gives insight into why humans seem so hurried in a culture where technology has blossomed and is supposed to make our lives easier. We can only process 120 bits of information per second, meaning we can *almost* understand two people talking at once (7). Levitin maintains that attention is our most important mental resource. Millions of neurons make up our attentional filter, which monitors the environment and only allows the conscious mind to deal with the important things (7). We have many more possessions compared to nomadic humans, and we are expected to do so much more ourselves with the aid of technology, causing our brains "to run wild," as Levitin puts it (9). We are overloaded and constantly worrying about the past or future, seldom living in the present. "Multitasking is the enemy of a focused attention system," writes Levitin. It costs us when we switch our attention as we do when our minds are "running wild" (16). To be successful, we need to learn to live in the present moment; we need to utilize external categorization systems so our brains can focus as they were meant—on one thing at a time. Musicians can utilize Levitin's suggestions for organization to prepare their minds for practice and performance.

Why Quiet the Mind?

Returning to the most pertinent question, why is it important to attain a quiet mind? When I pick up my flute in the morning, the first thing I play is the first exercise in Marcel

Moyse's *De la Sonorité,* a book of tone exercises for flutists. About four measures into the exercise, my brain is already thinking about my homework that is due on Friday, how I could have played better on last night's concert, an email I have to send, a grant application I have to submit, the audition I have this weekend, and, well you get the picture: I am thinking about everything I have to do rather than about what I am doing—practicing the flute. My mind is filled with "a plethora of thoughts about the past and future…preventing [me] from being in the here and now" (Levitin 9). This is the equivalent of a math major working on her abstract algebra homework, but focusing on everything except the statement she is trying to prove. If this continues, will she complete her homework or learn how to prove things more effectively? Probably not.

When I try to play the flute while thinking about other things, I am multitasking. As stated previously, multitasking is inefficient. The brain must decide which task to perform and in doing so loses time that it could have spent performing a single action. Psychologist David Meyer has found in his research that multitasking also releases stress hormones and adrenaline in the body (Rosen 107). Musicians covet their practice time; if their minds are busy thinking of other things, this time is not used efficiently and causes unnecessary stress. Musicians would make greater progress with a single-minded focus.

Why do musicians require a "quiet" mind instead of a "focused" mind or a "concentrated" mind? When I realize my mind is not focused while playing *De la Sonorité*, I will myself to concentrate. "I am going to think about these long tones for the rest of the exercise," I

tell myself determinedly. Four measures later, I realize my mind has slipped back into its old habit of worrying about everything else in my life. According to psychologist William James in *The Principles of Psychology* (1890), this habit is similar to that of a young child's mind which can be suddenly distracted. James maintains that steady focus is a trait exhibited by a mature mind (Rosen 109). This implies that in order to be able to focus on tasks consistently and effortlessly, one must possess a more developed mind. In other words, one cannot simply will oneself to concentrate consistently; it must be practiced. Frederick Alexander, creator of Alexander Technique, realized that it is ineffective to will oneself to perform a new act "contrary to our habit" (Gelb, 13). Herrigel describes practicing for an archery test, "facilitating concentration by the relaxation of our bodies" (Herrigel, 90). He was able to focus as a result of a relaxed mind and body, not the result of will. Therefore, focus is a result of a mature, quiet mind, and this mindset must be learned and practiced over many years.

How Does a Musician Attain a Quiet Mind?

1. Free the mind of worry
2. Obtain an aural image of what one wants to sound like
3. Stay in the present moment
4. Think less
5. Let the body play the instrument

Note that steps three through five should not be thought of as steps in a process. Steps one and two must happen in order, but three through five should be employed simultaneously while playing an instrument.

1. One must rid the mind of clutter and worry

Throughout his career, Daniel Levitin has met and observed many highly successful persons, or "HSPs." This category includes high-profile politicians, celebrities, and heads of large corporations. HSPs are perfectly capable of concentrating on their jobs because they hire people to manage their busy schedules; they do not have to worry about where they need to go next or what groceries they have to buy (Levitin 9). Although most people cannot hire a personal staff to perform these functions, one can use alternative organizational systems to free the mind. Levitin asserts that "the most fundamental principle of the organized mind…is to shift the burden of organizing from our brains to the external world" (35). One of the best organizational systems noted in *The Organized Mind* is the index card method. If one's mind starts to wander, simply write down what the brain is thinking or worrying about on a note card, one idea per card. These note cards are easily sorted into categories such as things to do tonight, things to do this week, miscellaneous thoughts, grocery lists, etc. (70). Writing these thoughts allows the brain to relax and stop thinking about "to-do items" (68-69). When the brain is no longer cluttered, one is able to focus single-mindedly.

Musicians can also use relaxation methods to help free the mind. Many musicians, dancers, and actors use Alexander Technique, a method of examining how one uses the body to accomplish goals and then of changing one's habits to use the body in a healthy way (27). Alexander Technique instructor Michael Gelb writes that in performing daily activities, such as

brushing teeth, we use habitually use "artificial arrangements." That is, we stiffen unnecessarily and generally compress our bodies rather than lengthen them (30). Musicians who study Alexander Technique have greater body awareness and note substantial improvement in physical and mental health ("The Alexander Technique"). Many musicians also use yoga to relax and connect the mind and body. A 2009 study shows that musicians who used yoga regularly experienced reduced performance anxiety and a better general mood (Khalsa et al. 287). Although Alexander Technique and yoga promote awareness of the body, both have positive effects on clearing the mind.

2. A musician must have a vivid mental image of the sound he wants to produce

In *Psycho-Cybernetics*, Maltz asserts that the brain is a goal-seeking mechanism driven by one's conscious mind (18). The imagination sets the goal. Maltz states "We act, or fail to act, not because of 'will' as is so commonly believed, but because of imagination" (31). Therefore, musicians must use the imagination effectively in order to play to the best of their abilities.

Maltz describes how to use the imagination to change one's self-image, but one can apply the same method to change how one thinks while playing music. Maltz observes that the self-image grows out of "imagination pictures" formed from one's evaluation of experiences. He then maintains that one can change the self-image in the same way one gained it—imaginations of oneself. He prescribes that a person sit and vividly imagine himself as he wants to be for 30 minutes every day. The more detailed the mental picture, the more effective because the nervous system cannot tell the difference between an imagined and a real experience (45). By doing this, one builds fake memories that the body uses; eventually, one will act like a different person (46).

What if a similar approach were taken to learning and playing music? Instead of mental images, a musician needs aural images. He needs to be able to hear what the music sounds like in his mind without playing it on an instrument. Not only does he need to hear what it sounds like, but he needs to hear *himself* playing it on *his* instrument as *vividly* and *correctly* as possible. In order to do this, he needs to know exactly what a great tone quality on his instrument is; he needs to listen to professionals play, capture that sound in his brain, and hear himself reproducing it on his own instrument. After capturing the proper tone quality, he needs to apply that tone (mentally) to the music he is studying.

Now, if one were to follow Maltz's prescription, a musician should sit down every day with his music and go through it in his mind as vividly as possible. This is an excellent exercise and should definitely be practiced. In fact, Maltz briefly mentions the concert pianist Artur Schnabel, who disliked practicing for a long time at the piano. Instead he practiced in his head most often, and was very successful (38). Yes, mental practice is an excellent tool and should consistently be used; however, this does not answer the question of what to think about while one is actually playing. We look to W. Timothy Gallwey for a possible answer.

Gallwey agrees with Maltz that the subconscious feeds on mental images. In *The Inner Game of Tennis,* Gallwey states, "Getting it together mentally involves…learning how to get the clearest possible picture of your desired outcomes…" (13) and "To Self 2, a picture is worth a thousand words. It learns by watching the actions of others, as well as by performing actions itself" (40). Gallwey maintains that one can form a clear image of where the ball should land

during a match (43). Unlike Maltz, who describes mental practice while removed from the real world, Gallwey promotes it during the heat of battle.

Gallwey writes a whole chapter on how to focus while playing tennis. He claims, "To still the mind one must learn to put it somewhere" (83). He describes three methods of focusing: watching the seams of the tennis ball, listening to the sound of the ball hitting the racket, and feeling oneself hit the ball. In practice, a player chooses one of these methods. However, one cannot force the mind to focus; one must be genuinely interested in the ball, the sound, or the feeling. When this happens, the mind only thinks about one thing and cannot attempt to multitask (84-89). For musicians, this one thing should be the sound created.

Gallwey mentions a period of time when his tennis serve was superb. He remembers, "I could hear a sharp crack instead of the usual sound at the moment of impact" (87). Instead of analyzing why his serves were so terrific, he "simply asked [his] body to do whatever was necessary to reproduce that 'crack'" (88). In other words, he tried to imitate a great example of a serve over and over again using the sound. Musicians can use this method. For example, say I am playing the Mozart Concerto in G Major for flute, I should listen to one of the best flutists in the world play it first, such as Emmanuel Pahud. Next, I should imagine myself playing the first line of the concerto with Pahud's sound on *my* flute. Then, I pick up my flute and play the line, all the while hearing in my head exactly how I want it to sound. This method combines Maltz's idea of using the imagination and Gallwey's idea of focusing one's mind somewhere to prevent it from wandering.

3. One must stay in the present moment

A common theme across many of my sources is the importance of living in the present. When Levitin mentions HSPs, he writes, "These highly successful persons…have many of the daily distractions of life handled for them, allowing them to devote all of their attention to what is immediately before them" (9). By off-loading the more mundane tasks of everyday life, these people can focus on their jobs, and be genuinely invested in the present moment. Maltz urges the reader to "consciously practice the habit of taking no anxious thought for tomorrow, by *giving all your attention to the present moment"* (86). He acknowledges that one must make plans for tomorrow, but thinking about how to react to future moments disables one from reacting effectively to the present moment. Gallwey maintains that "Focus means keeping the mind now and here" (83). Eugen Herrigel alludes to other Japanese art forms influenced by Zen, such as ink painting. He comments, "Mastery in ink painting is only attained when the hand, exercising perfect control over technique, executes what hovers before the mind's eye at the same moment when the mind begins to form it…" (104). Thinking ahead is not an option; followers of Zen always live in the present. In fact, Thich Nhat Hanh says, "Our appointment with life is in the present moment" (10). It cannot be coincidence that all of these authors believe in the importance of the here and now.

Musicians can use this to inform what they think about while playing. Yes, they should imagine exactly what they want to sound like in their head, but they should imagine only in the moment. Thinking ahead leads to anticipating difficult parts of the music, and from

experience, this often results in making a mistake. When one thinks ahead in the music, one neglects making music in the present. Music is magical; one never plays a line the same way twice. Therefore, it is so important to make music in the moment and not try to make it in the next few minutes, or even in the next few seconds.

4. Think less

"Of course, thinking is important, but quite a lot of our thinking is useless," Hanh wisely writes (11). Eugen Herrigel experiences this in his archery lessons. Herrigel practices drawing his bow but cannot seemed to stay relaxed, and his teacher exclaims, "That's just the trouble, you make an effort to think about it. Concentrate entirely on your breathing, as if you had nothing else to do!" (40). His teacher often urges him not to instruct his body how to draw the bow. "Don't think about what you have to do," he commands, "don't consider how to carry it out!" (48).

Gallwey also discredits instructional thinking in tennis. He writes, "How many and which muscles are actually needed to hit a fast serve? No one knows, but if the conscious mind *thinks* it does and tries to control those muscles, it will inevitably use muscles that aren't needed." When one uses too many muscles, the extra contracted muscles interfere with ability of other muscles to relax (37). Similarly, Herrigel's master teaches, "When drawing the string you should not exert the full strength of your body, but must learn to let only your two hands do the work, while your arm and shoulder muscles remain relaxed" (36). Contracting extra muscles is a result of

thinking about too many things at once—multitasking. Thinking about how to play an instrument while trying to play music will only cause frustration.

Teachers frequently offer technical instruction for playing sports and for playing instruments, but Gallwey notes that the United States Tennis Association Sports Science Department has confirmed that "too many verbal instructions, given either from the outside or inside, interfere with one's shotmaking ability" (54). Now, instruction from a teacher is definitely helpful, but only as a guide. If a teacher gives too much technical instruction, the student should only think of it as something to be aware of, not on which to focus. Most importantly, musicians should not think about how to play their instrument; the sound of the music in the moment must consume the mind's attention.

Gallwey comments on other thoughts that are detrimental to the game of tennis. First, he believes one must not assign judgements to any shot. Thinking a shot is 'bad' turns into a "self-fulfilling prophecy;" the body executes more 'bad' shots when one tells oneself that a previous shot was 'bad' (19). Maltz similarly states, "You will 'act like' the sort of person you conceive yourself to be" (2). Assigning judgments to one's actions, and indirectly to oneself, leads to a negative self-image and poor execution of that action in the future.

What about positive judgements? Well, Gallwey has an answer for this as well. He observes, "Clearly positive and negative evaluations are relative to each other. It is impossible to judge one event as positive without seeing other events as not positive..." (30). The cure for this "is to see your strokes as they are," not clouded by the conscious mind's judgments (21).

Musicians are perfectionists and are constantly judging themselves; we record ourselves and listen back for mistakes; when we perform we are anxious about errors. Ridding one's mind of judgment in the practice room may prevent the endless spiral of playing poorly because one *thinks* one is a poor player.

Of course, we must still be aware of what we sound like while playing. Gallwey insists that awareness of the location of the racket head while playing tennis is of the utmost importance. Players often think about where it should be, but they cannot tell where it actually is while they are hitting a shot (25). Once a player focuses on where his racket is, a "natural learning process" takes over, and his execution of hitting a shot changes without him trying to change it. Gallwey argues, "...there is a natural learning process which operates within everyone—if it is allowed to" (27). We allow this natural learning process to take over when we are simply aware of, but do not focus on the physicalities of playing tennis, or of playing an instrument.

As a flutist, my music almost always contains fast runs, which are snippets of music where one has to play many notes in a short amount of time. My fingers have to move quickly and accurately for these snippets to be accurate. Teachers used to tell me that my fingers fly too high off the keys and that I would be able to play faster if I kept them closer to the flute, which is true. However, when I tried to focus on my fingers, I neglected the music I was playing and would often end up frustrated. I even went so far as to put double-sided tape on my keys in an endeavor to solve the problem. After a while, I gave up on this method and stopped thinking

about where my fingers were, simply because it was annoying and exhausting. I want to play music, and if it sounds good, who cares where my fingers are? Over the past two years, they *have* gotten closer to the flute, but during none of that time was I forcing them to do so. After reading *The Inner Game,* this phenomenon makes sense.

This awareness should be applied to all physical aspects of playing an instrument. Remember, the only thing to think about is what one wants to sound like, not how the jaw moves or how the diaphragm expands and contracts while breathing or where the fingers are in relation to the instrument. All of these things will follow naturally as long as one is simply aware of them; as long as one feels them and does not think about them.

5. Let it happen

Musicians are arguably some of the hardest working professionals in the modern world. The music business is so competitive that it often drives aspiring musicians to try and do everything in their power to eventually win a job. Practicing efficiently and healthily is a necessity; practicing too hard can be detrimental to both a player's physical health and musical progression.

What is practicing too hard? For one, practicing for multiple hours and never taking a break is dangerous to one's physical health. It is imperative to put in the hours, but one must be careful and not play the instrument the entire time. A combination of playing, taking breaks, listening to recordings of professionals and of oneself, singing the music, and score study will

allow one to practice for longer periods of time. However, this is not the kind of "practicing too hard" on which I would like to focus.

In the *Inner Game of Tennis*, Gallwey defines what he calls "trying too hard." This occurs when the conscious mind gives the subconscious too many instructions. The conscious mind wants to be in control, and in talking to oneself, it overrides the body's natural functions (36). Therefore, "practicing too hard" is the musician's version of "trying too hard." This includes chastising ourselves while playing, worrying about the difficult parts of the music, telling ourselves to move our fingers faster in a certain spot, or anything that takes the focus away from hearing exactly how we want to sound. A musician might have perfectly good intentions when "practicing too hard" occurs; he is probably just trying to be the very best he can be and thinks that he must think harder about what he is doing wrong. This is what makes it particularly insidious. "Practicing too hard" is equivalent to "thinking too much" and is a form of multitasking.

To prevent "practicing too hard," we look to Gallwey for guidance. Gallwey claims, "*Letting* it happen is not *making* it happen. It is not *trying* hard" (36). He describes how incredible the human body is, how "sophisticated and competent" the nervous system is, and how we must learn to trust our bodies and respect them (35). "Trusting your body in tennis means *letting* your body hit the ball. The key word is *let.* You trust in the competence of your body and its brain, and you *let* it swing the racket" (Gallwey 36). When describing how to change the self-image, Maltz states "...stop trying to 'do it' by strain and effort, picture to

yourself the target you really want to hit, and 'let' your creative success mechanism take over" (41). He may as well have written to a musician, "...stop trying to 'play it' by strain and effort, hear how it is supposed to sound, and 'let' your body take over." Herrigel's archery master says, a little more abstractly, that the way to draw the bow effectively is "By letting go of yourself, leaving yourself and everything yours behind so decisively that nothing more is left of you but a purposeless tension" (52). It seems so simple: Don't think. Hear your goal sound in your head. Trust yourself to play it. However, learning to trust oneself takes time because we have had years of experience doing the exact opposite.

Why is Quieting the Mind so Difficult?

As toddlers, we have no concept of making mistakes. When learning to talk, we just mimic our parents' voices. An infant does not reprimand himself for mispronouncing a word; it simply keeps trying to make the right sound, giving no thought to what came out of his mouth a moment ago. Learning to walk is similar. When we fall down, we do not receive an 'F'; we do not judge ourselves. We just keep trying until we do not fall. This is what Gallwey means by the natural learning process: learning by experience without thought or judgement (22-24). Why can't we learn to play music in this way, or learn any activity in this way? Our minds clearly evolve sometime after infancy to be overbearing, always telling our bodies what to do and how to do it.

In school, we are pressured to overachieve, to get all As, to perform better next time, to get into the best colleges. I am no exception; in fact I may be one of the most die-hard try-hards anyone has ever met. As a consequence, I become frustrated when I cannot play something as well as I think I should the first time. Instead of being excited about learning something new, I am disappointed in myself before I begin.

In a study on stress in elementary through high school students published by the American School Counselor Association, the research showed that school-related problems and peer pressure cause stress in students of all ages. These include fear of academic failure, problems with teachers, fear of disappointing parents, worrying about getting into college, fear of not being accepted by other students, and the fear of doing something generally wrong (Omizo et al. 269-270). When students feel these pressures, many develop feelings of inferiority, to a greater or lesser degree, because they receive negative feedback from teachers and parents because of grades and start worrying if they are good enough. Yes, grades are a way of differentiating between high and low achievers, but a bad grade on a test is a permanent statement acknowledging a student's lack of achievement. Maltz would say that one should just move on from mistakes and keep advancing towards the goal (21), but schools make mistakes memorable by putting so much emphasis on grades. When students are introduced to grades and peer pressure, they start mistrusting themselves. Over time, students learn to distrust their natural abilities more and more, and we arrive at a point where all learning is stressful.

How a Quiet Mind Transfers to Performance

Many musicians will say that they think of random things during performance and find it hard to concentrate. For example, I recently remember thinking, "Did I brush my teeth today?" during a performance. I also remember my flute professor, Dr. Shelley Binder, saying that she has found herself thinking about her grocery list while performing. Often we attribute this to the anxiety and adrenaline surrounding a performance, which are certainly factors, but it is mostly because we practice in the same way; we let our minds wander. Of course the performance environment cannot ever be precisely replicated in practice, so there are variables that will undoubtedly alter performance. However, practicing with a quiet mind will transfer to performance.

In a study on deliberate practice in music, games, sports, and other areas, the researchers found that deliberate practice had a relatively strong impact on performance variance in music (Macnamara et al. 1615). In general, the more a musician practices, the better he performs. Therefore, practicing to attain a quiet mind and then practicing with a quiet mind will transfer to *performing* with a quiet mind. I attended the 2017 International Flute Festival in Bruges, Belgium, and principal flutist of the Royal Flemish Philharmonic Aldo Baerten said, "You have to practice it at 110% accuracy for it to be at 96% in the performance." One will never perform with as quiet a mind as with one practices, but the closer one can get, the better.

Conclusions

We are trained to multitask, to overthink, and to micromanage our bodies' abilities. Learning is stressful when it should happen naturally without fear of failure. It is important to learn to practice an instrument with a quiet mind in order to perform at our best. By relaxing the mind and body, having an aural image of what one wants to sound like, and thinking only of that sound in the moment while playing, one quiets the mind and enhances the learning process. Musicians perform similarly to how they practice, so a quiet mind in practice transfers to a quiet mind in performance. Performing with a quiet mind means having the ability to concentrate only on the music while under pressure. When one can do this, one can play as well as one can imagine.

Works Cited

Gallwey, W. Timothy. *The Inner Game of Tennis: the Ultimate Guide to the Mental Side of Peak Performance*. 1974. Random House 1977.

Gelb, Michael J. *Body Learning*. 2nd ed., New York, Holt, 1994.

Hanh, Thich Nhat. *Peace is Every Step*. 1991. New York, Bantam, 1992.

Herrigel, Eugen. *Zen in the Art of Archery*. Pantheon, 1953.

Khalsa, Sat Bir S., et al. "Yoga Ameliorates Performance Anxiety and Mood Disturbance in Young Professional Musicians." *Applied Psychophysiology and Biofeedback*, 2009, Vol. 34, No. 4, 6 Aug. 2009, pp.279-289. *Springer Link*, doi: 10.1007/s10484-009-9103-4.

Levitin, Daniel J. *The Organized Mind: Thinking Straight in the Age of Information Overload*. 2014. Plume, 2015.

Macnamara, Brooke N., et al. "Deliberate Practice and Performance in Music, Games, Sports, Education, and Professions: A Meta-Analysis." *Physiological Science*, 2014, Vol. 25, No. 8, 2014, pp. 1608-1618. *Sage Premier*, doi: 10.1177/0956797614535810.

Maltz, Maxwell. *Psycho-Cybernetics: a New Way to Get More Living out of Life*. 1960. Pocket Books, 1969.

Omizo, Michael M., et al. "Children and Stress: An Exploratory Study of Stressors and Symptoms." *The School Counselor*, March 1988, Vol. 35, No. 4, pp. 267-274. *JSTOR*, url: http://www.jstor.org/stable/23901307.

Rosen, Christine. "The Myth of Multitasking." *The New Atlantis*, Spring 2008, No. 20, pp. 105-110. *JSTOR*, url: http://www.jstor.org/stable/43152412.

"The Alexander Technique: A Musician's Method for Improvement." *YouTube,* uploaded by lorischiff, 15 May 2011, https://www.youtube.com/watch?v=hwKkbl-EzfQ.

"Thich Nhat Hanh." *Plum Village*, 4 Sept. 2017, plumvillage.org/about/ thich-nhat-hanh/ biography/.

Appendix

This thesis was written in conjunction with my Junior Recital for graduation in the Chancellor's Honors Program. Therefore, I include the following in this appendix:

1. Program notes from my Junior Recital, April 13th, 2018 at 8 pm in Powell Recital Hall
2. Links to YouTube videos of my Junior Recital

Program Notes
Rebecca Percy's Junior Recital
April 13, 2018

Partita in A Minor for Solo Flute, BWV 1013 — Johann Sebastian Bach (1685-1750)

I. Allemande

Arguably a classic of the flute repertoire, the Partita in A Minor provides a challenge to any flutist; the first movement is no exception. An *allemande* is traditionally a German dance in duple meter featuring sixteenth notes. When introduced as part of the instrumental dance suite, the *allemande* became highly ornamented and more "gently flowing," according to Jeffrey Pulver.

The A Minor Partita was considered quite virtuosic for its time. The *Allemande* itself contains the highest note one could play on a Baroque transverse flute, A6*;* Bach also writes constant sixteenth notes in this movement, leaving no room for breaths. Scholars theorize that the Partita may have been the first piece Bach ever wrote for flute due to its virtuosic and unidiomatic nature. In 1717, Bach made a visit to Dresden where the best flute player in Germany was employed: the Frenchman Pierre Gabriel Buffardin. It is likely that Bach heard him play and then wrote the Partita for him, which would explain why Bach wrote such a difficult work and titled it in French in his manuscript. The surviving manuscript dates from 1722-3.

**This information was retrieved from "J. S. Bach's Compositions for Solo Flute: A Reconsideration of Their Authenticity and Chronology," by Robert L. Marshall, pgs 477-481 and "The Ancient Dance Forms," by Jeffrey Pulver, pg. 10.

Grand Polonaise, Op. 16 — Theobald Boehm (1794-1881)

Theobald Boehm, a remarkable flutist, composer, flute maker, goldsmith, and acoustical engineer, had the knowledge and the tools to design a more capable flute. In 1847, he constructed a flute with a metal fingering system that allowed for better tone hole placement, and as a result, better pitch. This not only improved the intonation of the flute, but enabled flutists to play much more virtuosic passages. Boehm's radical new key design remains the standard today, with a few slight modifications.

Grand Polonaise was composed in 1831, several years before Boehm made the final version of his reinvented flute; however, one can see in this work how well Boehm understood the capabilities of the flute. A *polonaise* is a Polish country dance that became popular in nineteenth century salon culture. The concert-polonaise is a dance in ¾ time featuring the rhythm of an eighth note followed by two sixteenth notes. Boehm highly ornaments the melody in *Grand Polonaise* in the style of Romantic virtuosic music.

**This information was retrieved from *The Flute and Flute Playing* by Theobald Boehm and from *Polish Music Center,* "Polonaise," https://polishmusic.usc.edu/research/dances/polonaise/.

Concerto for Flute and Orchestra, FS 119 Carl Nielsen (1865-1931)
Allegro moderato
Allegretto, un poco

Carl Nielsen is one of the most celebrated Danish composers, but remains greatly under-admired by many in the music community. His flute concerto is one of the primary concertos performed by flutists today. Originally composed for Holgar Gilbert-Jespersen, this concerto exhibits both neoclassical and modern elements. Nielsen loved Mozart and includes classical ideals such as repeated note melodies, sequencing, counterpoint, and an emphasis on cadences in both movements of the concerto. However, this concerto is only two movements (rather than the expected three), and the movements do not follow a strict form. Although not as identifiable in the piano reduction, Nielsen highlights specific instruments of the orchestra including timpani, clarinet, and a rather bombastic bass trombone. His interest in specific timbres of instruments points towards modern chamber music.

**This information was retrieved from "The 'Arcadian' Flute: Late Style in Carl Nielsen's Works for Flute," a dissertation by Beth E. Chandler.

Links to Videos of my Junior Recital

1. Partita in A Minor for Solo Flute, Allemande
   https://youtu.be/ZnZxT1n-cSQ

2. Grand Polonaise
   https://youtu.be/syQeoeMThao

3. Nielsen Concerto, 1st movement
   https://youtu.be/MA2ISVVPwp0

4. Nielsen Concerto, 2nd movement
   https://youtu.be/dextISoyCUw