

IS IT UNTEACHABLE? ESTABLISHING A METHOD FOR TEACHING COMMUNICATIVE  
MUSICALITY TO ADVANCED STUDENTS

by

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*In memory of Karen Shaw and André Watts*

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## **Is It Unteachable? Establishing A Method For Teaching Communicative Musicality To Advanced Students**

In both casual and professional settings, it is commonplace for musicality to be described in terms that mystify it: “genius,” “talent,” “imagination.” While this practice serves to elevate the art form to a superhuman level, it has very little utility for educators. In this paper, I will argue that elements of musicality are not only identifiable, but also teachable, in populations of students that exhibit difficulty accessing emotional and imaginative capabilities. Several prerequisites for the successful practice of teaching musicality are discussed in detail, including ideal teaching models, educators’ attributional beliefs, and viewpoints on the terminology musicality and talent, as well as their effect on teaching practices.

Diving deeper into the scientific aspects of cognitive functions, I will introduce *aphantasia*, a term used to describe the documented lack of internal imagery, and discuss its potential relationship with *audiation*, the ability to create internal music imagery. I will argue that musical tasks are not reliant upon an ability to create internal auditory imagery and can, instead, be accomplished by other cognitive functions.

Directing this research towards current teachers of advanced students, I will propose a method for teaching musicality that appeals to logical and problem-solving cognitive functions. Fleshing this out further, I will call upon the hermeneutic theoretical approach of Edward T. Cone and demonstrate how it can be applied to practical education through a case study of Liszt’s Totentanz, S. 126, as taught to a student at the Jacobs School of Music.

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## Chapter 1: INTRODUCTION

What does it mean when something is unteachable? Clear methodologies exist for several complex activities: riding a bicycle, writing a poem, and solving an advanced calculus problem, to name just a few. Each of these can be taught with clear, incremental instruction. As any experienced music teacher knows, there are musical proficiencies that follow this linear path as well, in technical skills or theoretical concepts. What remains elusive in the teaching literature is somewhat difficult to describe: the ability to express oneself through music. Some refer to it as “musicality” and others as “talent,” but regardless of the terminology, what incremental steps can possibly exist to teach it?

In the twenty years that I have been part of the classical music industry as a student, performer, teacher, arts administrator, and more, I have had a complex relationship with the concepts of *talent*, *musicality*, and *imagination*. For most of my life, I was made to believe that I have none of those things. My first inclination that I was experiencing a different musical world than my teachers and colleagues came when I was sixteen years old in my first masterclass experience, during which the teacher told me that I “didn’t get it” when I was asked to perform a passage on the piano like a tenor on the opera stage. I understood the concept; however, each of my attempts apparently failed and was met with the increasingly exasperated instruction “you have to hear it in your head, first!”

“Cerebral,” “thinking too much,” and “unmusical” are all descriptors that I have heard from teachers over the years. The consistency of this feedback has, of course, caused me to question whether music is even worth pursuing if I clearly do not have the “talent” that is being alluded to. When I began to teach, I developed a new relationship with this problem because I recognized it in many of my own students and some of my colleagues. My own experience made me open to the possibility that avenues toward musical expression may be very different for each student or performer and I was motivated to explore how educational approaches to musical expression may be developed to reach more than just the overtly “talented”.

But, before the “how”, we need the “what.” Heinrich Neuhaus discusses at length the concept of the “musical image,”<sup>1</sup> with Joseph Lhevinne simply referring to “good musicianship.”<sup>2</sup> While descriptions vary, nearly every attempt at addressing musicality relates it to the idea of imagination. Imagination as a concept has fascinated some of the most famous thinkers, with Aristotle coining the term *phantasia* as a descriptor and Plato writing of the “eye of the soul” in reference to that which could not be described precisely about the collective inner experience of humankind.<sup>3</sup>

The aim of this project is to shed light on some of the deep-seeded assumptions about musicality and teaching methods as they relate to advances in cognitive science that inform our understanding of imagination and music cognition. I explore these assumptions by addressing the teacher’s approach and mindset, deconstructing musicality as a concept, and proposing a method for teaching expressive concepts using logic and reasoning.

Reflecting on scholarly research from the mid-20<sup>th</sup> century to present day that focuses on music education at the university level, I will begin by defining the model of an effective music teacher in the 21<sup>st</sup> century. While acknowledging the merits of traditional teaching models, such as the prevailing “master-apprentice” model, Chapter 2 will highlight some of its limitations and potential adverse effects on students.<sup>4</sup> Drawing from the research of Randall Allsup and others, I will advocate for a student-centered teaching approach, especially in one-on-one settings where a clear expertise hierarchy exists, and students naturally model themselves after the teacher.

In chapters 3 and 4, the concepts of talent and expressive skills will be challenged and re-defined, with a specific focus on audiation and the newly discovered phenomenon *aphantasia*. Chapter 3 will first address the concepts of talent and genius, citing works by psychologist K. Anders Ericsson and others to

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<sup>1</sup> Heinrich Neuhaus, *The Art of Piano Playing* (London: Barry and Jenkins Ltd, 1973), 8.

<sup>2</sup> Josef Lhevinne, *Basic Principles in Pianoforte Playing* (New York: Dover Publications, 1974), 17.

<sup>3</sup> Jennifer Anna Gosetti-Ferencei, “Envisioning the Mind’s Eye and Other Imagings” in *The Life of Imagination: Revealing and Making the World* (Columbia University Press, 2018), 186.

<sup>4</sup> Randall E. Allsup, “Music Teacher Quality and the Problem of Routine Expertise,” *Philosophy of Music Education Review* 23, no. 1 (Spring 2015): 8.

establish that musicality is not exclusively a trait one is born with, but can be taught and developed.

Challenging traditional views of musicality, Chapter 3 will introduce the dimensions of musicality posited by Michael Forrester and Emma Borthwick-Hunter, with specific emphasis on communicative musicality.

Juxtaposing Edwin Gordon and Andrea Halpern's theory of audiation, which has heavily influenced music education for several decades, and recent studies that challenge prevailing views about imagination, Chapter 4 will propose that a mindset shift when teaching communicative musicality is necessary. Specifically analyzing the implications of *aphantasia* for traditional methods of music education, this paper will argue that having alternative strategies that do not rely on imagination-based instruction style would benefit a significant population of music students.

To offer a practical example of teaching expressive skills using a method that does not rely on audiation or imagination, the final chapters of this paper will present a case study of music theorist Edward T. Cone's hermeneutics and their application to private instruction. Following a summary of the basic principles of Cone's work, Chapter 5 will explore how an advanced student could benefit from an infusion of Cone's principles into the learning process.

It is the aim of this paper to challenge private instructors of advanced students to consider their approaches to teaching expressive skills by offering both conceptual evidence and practical implementation of an alternative approach to musicality as a concept. If nothing else, this paper hopes to reiterate the words spoken by Heinrich Neuhaus: "The conclusion is clear: in each particular case, work on the musical image will be different."<sup>5</sup>

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<sup>5</sup> Neuhaus, *The Art of Piano Playing*, 8.

## Chapter 2: THE ADVANCED-LEVEL PRIVATE TEACHER

To explore a new approach to the teaching of musicality, we begin with the beliefs and attitudes of the teacher, as well as the effectiveness of the educational models they use. As we look at the body of educational research in the 20<sup>th</sup> and 21<sup>st</sup> centuries, there is an obvious consensus that more inclusive and student-driven practices should become the norm. The music education research agrees: in 2015, Randall Allsup pointed out that “education in the twenty-first century [has] witnessed a profound shift in emphasis from the teacher to the learner, or from pedagogical inputs to learner outcomes.”<sup>1</sup>

One could draw a connection between this move toward student-centered education and a generational shift in learning preferences. Courtney Crappell notes that sources largely agree that individuals born after 1980 (Generation X, Millennials, Gen Z, etc.) prefer self-directed learning.<sup>2</sup> In other words, they learn best when they decide what to learn and how they will learn it. Also called “discovery learning,”<sup>3</sup> this approach can be a challenge for educators of the Silent or Baby Boomer generations, whose traditionalist learning preferences are at odds with the current trends. Before any of these concepts were written about, Edward T. Cone identified university educators in creative fields as uniquely capable of creating environments that promote discovery learning: “when I speak of creation in relation to knowledge, I mean that the process of writing a poem, of painting a picture, of composing a song, involves discovery on the part of the artist, which is in turn communicated to his audience through the work of art.”<sup>4</sup>

What is a traditionalist approach to education? In the stereotypical university classroom, imagine the professor giving a lecture while students take notes for the inevitable end-of-term examination. There

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<sup>1</sup> Randall E. Allsup, “Music Teacher Quality and the Problem of Routine Expertise,” *Philosophy of Music Education Review* 23, no. 1 (Spring 2015): 5.

<sup>2</sup> Courtney Crappell, *Teaching Piano Pedagogy: A Guidebook for Training Effective Teachers* (New York: Oxford University Press, 2019): 236.

<sup>3</sup> Jerome Bruner, “The Act of Discovery,” *Harvard Educational Review* (1961): 22.

<sup>4</sup> Edward T. Cone, “The Creative Artist in the University,” *College Art Journal* 7, no. 3 (Spring 1948): 178.

is a pre-determined set of information that is communicated by the teacher and must be absorbed and understood by the student to be reproduced later. In private music instruction, traditionality can manifest as the familiar master-apprentice model, in which the teacher bestows upon the student the “correct” method of playing and the student is meant to understand and imitate.<sup>5</sup> History has not been kind to this type of approach to teaching: in the words of early 20<sup>th</sup> century Brazilian philosopher and educator Paulo Freire: “When the future is pre-given, there is no room for education, only training.”<sup>6</sup>

Randall Allsup provides a useful framework for shifting towards a more student-focused approach to music education, in which successful teaching is delineated from quality teaching. Of his five propositions, number four serves this study most aptly: “Quality can be measured by the degree to which a music educator can move fluidly among forces and forms.”<sup>7</sup> Allsup’s meaning here involves product vs. process. A successful teacher can be measured by the product that is produced by their students; however, a quality teacher endeavors to identify the needs of the student, understand the student’s unique process, adapt their teaching style and content to the needs of the student, and craft a learning experience with the student that will serve them in their ultimate goals. This is student-centered education.

Allsup’s proposition about learning processes ties into Universal Design Learning (UDL), an approach based on founder Ronald Mace’s architectural concept: “universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”<sup>8</sup> UDL is most associated with education for people with disabilities; however, music education scholars have started to apply the theory in an effort to develop inclusive teaching practices in the university setting.<sup>9</sup> In essence, UDL models provide students with multiple

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<sup>5</sup> Crappell, 12.

<sup>6</sup> Allsup, 16.

<sup>7</sup> Allsup, 10.

<sup>8</sup> Jay Timothy Dolmage, “Universal Design” in *Academic Ableism: Disability and Higher Education* (University of Michigan Press, 2017): 115.

<sup>9</sup> Amanda R. Draper, “Universal Design for Learning: Removing Barriers to Music Education” (lecture, Indiana University, Bloomington, IN, March 2021)

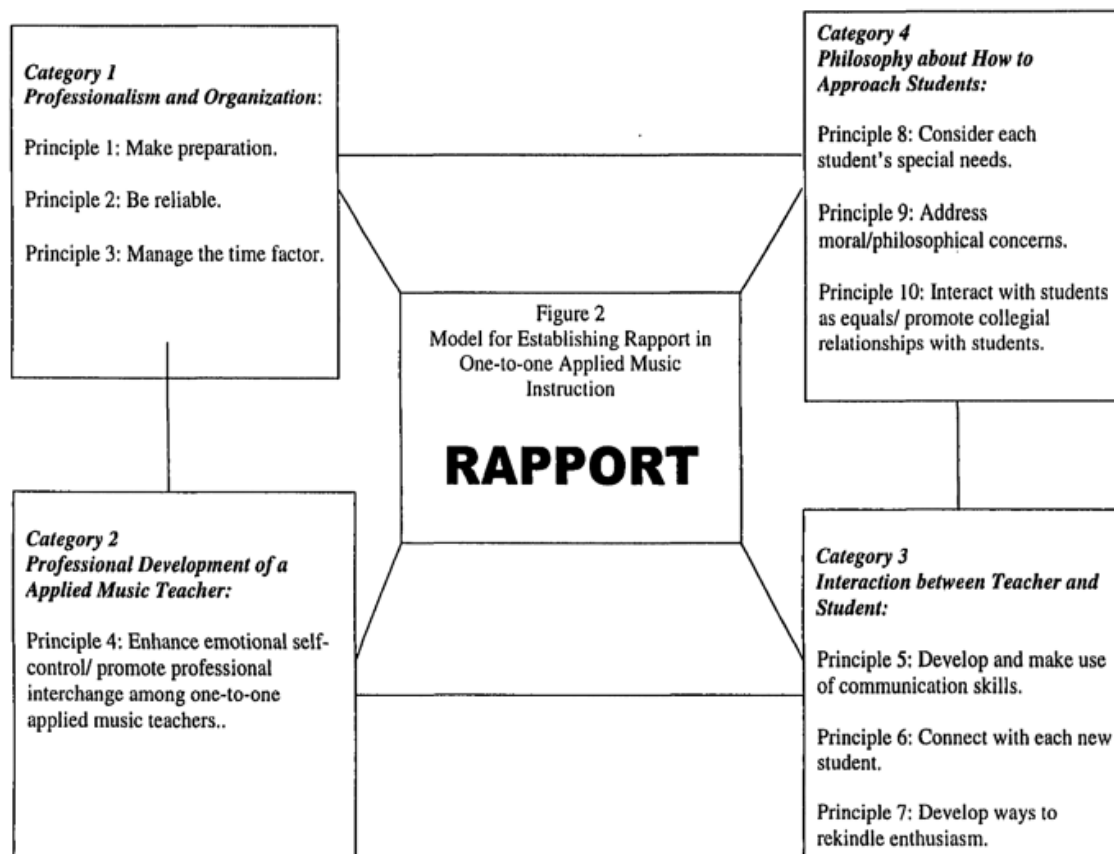
avenues to access the “why,” “what,” and “how” of learning. Thus, the impetus is on the teacher to discover and provide multiple means of engaging the student with information, multiple means of representing information to the student, and multiple means of expressing or responding to information by the student. This is the ideal environment for discovery learning and what a wonderful opportunity for music educators to exercise their creativity! In future chapters, I will discuss how expanding ideas about how to approach musicality is an important addition to UDL in music education.

Adopting a learner-focused model requires teachers to think critically about how to establish rapport with their students. In a comprehensive study, Chieh Chang investigated the strategies and priorities of professionals in fields that require significant rapport with clients for their work and applied them to private music instruction. Drawing from significant research on establishing rapport in the fields of psychology, therapy, and tutoring, Chen provides a list of ten principles that provide a model for establishing rapport in one-to-one applied music instruction.<sup>10</sup> While all ten principles are useful, the three components in Category 4: “Philosophy about how to approach students” are essential to this discussion and most actively promote student-centered approaches to music instruction. Principles 9 and 10 deal with teachers positioning themselves as equals to students and addressing students’ individual philosophies as they apply to the music. Principle 8 is the crux of the discussion as it applies to this paper: consider each student’s special needs. As we dive into the details of musicality and its potential relationship with cognitive function, it will become evident that this principle must be at the heart of any student-centered teacher if their aim is to provide the highest quality music education possible for their students.

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<sup>10</sup> Chieh Monica Chang, “Establishing Rapport in One-to-One Applied Music Instruction: A Theoretical Framework for Enhancing the One-to-One Teacher-Student Relationship” (PhD Diss., Teachers College at Columbia University, 2001), 97.

**Figure 2.1. Ten Principles for Establishing Rapport by Chieh Chang.<sup>11</sup>**



In examining the student-teacher relationship and assessing the educational models that are in use, it can be helpful to analyze how music teachers (and, specifically, private teachers) build their own identities as educators. In 2015, Dr. Melissa Natale-Abramo released the findings of her extensive research study on the construction of music education teachers' identities.<sup>12</sup> While geared specifically towards those in the specialized field of music education, her findings are relevant to any music instructor. She writes that amongst music educators, the identity of “performer/musician” is directly correlated with perceived musical performance ability. Its degree of importance is essential to three

<sup>11</sup> Chieh Monica Chang, “Establishing Rapport in One-to-One Applied Music Instruction: A Theoretical Framework for Enhancing the One-to-One Teacher-Student Relationship” (PhD Diss., Teachers College at Columbia University, 2001), 97, figure 2.

<sup>12</sup> Melissa Natale-Abramo, “The Construction of Instrumental Music Teacher Identity,” *Bulletin of the Council for Research in Music Education* 202 (September 2015): 51-69.

professional identities: “a musician who happens to be teaching,” “a music teacher,” and “a teacher who teaches music.”<sup>13</sup> In other words, a teacher’s level of performance ability directly affected how they identified and thus how much value was placed on the “teacher” identity. This dichotomy, which relegates the “teacher” identity, can result in tension, both internally for the teacher, and in how their students perceive the teacher and themselves.

Natale-Abramo suggests that socially constructed identities such as “performer/musician” and “teacher” can be challenged. Drawing from Postmodern philosophy, she introduces “discourses,” sets of rules that create meaning, and “discursive fields,” places where discourses actively contradict each other and compete. Utilizing discursive fields, she suggests that fluid, flexible means for teachers to construct their identities addresses the complicated situations that teachers find themselves in in relation to their students, craft, institution, beliefs, race, sexuality, and more. While this paper does not require a detailed discussion, the important thing to note is that identity can be constructed around a number of elements beyond the traditional “master,” “teacher,” and “musician/performer.”<sup>14</sup>

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<sup>13</sup> Melissa Natale-Abramo, “The Construction of Instrumental Music Teacher Identity,” 52.

<sup>14</sup> Melissa Natale-Abramo, 53-54.

## Chapter 3: DEFINING TALENT AND MUSICALITY

As we reflect on Universal Design Learning and consider how to apply student-centered practices to private instruction, we need to address two hurdles that are unique to the field of classical music in their impact on learning: *talent* and *musicality*. At what point does talent cease to explain ability? Is musicality merely a product of innate talent? How do we teach the latter if it depends on the former? Before developing a methodology that addresses musicality, we must acknowledge the role of talent and define musicality as specifically as possible.

### Defining Talent

Anders Ericsson's work came to prominence in the 1990s as a direct response to the issue of "natural ability" first posited by Sir Francis Galton. In 1869, Galton wrote "if a man is gifted with vast intellectual ability, eagerness to work, and power of working, I cannot comprehend how such a man should be repressed."<sup>1</sup> Galton's late nineteenth century writing became the basis for theories about talent and genius; however, Ericsson sought to develop an alternative explanation for talent, which he framed as "expert performance."

Ericsson argued that true genetic attributes remain stable across time: namely biological mechanisms such as height, eye color, bone density, etc. He argued that expert performance can be explained entirely by an individual's amount of "deliberate practice," which is roughly defined as high-load practice on challenging, but achievable, goals in a time frame that maximizes motivation towards a given skill.<sup>2</sup> Ericsson's various studies explore test subjects primarily in the fields of sports and music, through which he concludes that expert performance is achieved after approximately 10,000 hours of

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<sup>1</sup> K Anders Ericsson, Ralf Th. Krampe, and Clemens Tesch-Romer, "The Role of Deliberate Practice in the Acquisition of Expert Performance," *Psychological Review* 100, no. 3 (1993): 364.

<sup>2</sup> K Anders Ericsson, "Creative Expertise as Superior Reproducible Performance: Innovative and Flexible Aspects of Expert Performance," *Psychological Inquiry* 10, no. 4 (1999): 331.

deliberate practice.<sup>3</sup> Arguing against the idea that certain individuals are born with a natural predilection for certain skills or abilities, Ericsson cites several instances in which subjects' anatomical features are altered as a result of consistent practice, such as enlarged hearts in elite long-distance runners and increased lung capacities in subjects who relocate to locations at higher altitudes.

Ericsson further argues that any semblance of early ability constitutes "perceived talent," which affords potential experts an early pre-disposition for deliberate practice through parental and environmental influences.<sup>4</sup> A simplified example of this would be a four-year-old child of musical parents who displays early signs of understanding rhythm and learns by rote on the piano: this child would immediately be put into piano lessons and begin deliberate practice at a young age, aided by an environment that supports their musical progress. In adolescence, the developing child's "talent" can be attributed to early exposure and development of necessary skills for music making.

In the late nineties, Ericsson even extended his work to the realm of creativity, which Mihaly Csikszentmihalyi defines as "an attribute of ideas or products that are original or statistically infrequent, and therefore unpredictable in a given culture."<sup>5</sup> Ericsson argues that creativity is not a result of blind variation, which is the random natural selection of evolutionary theory. His three primary arguments against creativity as a natural ability are as follows: creative productions are intentional and take time; prior training and experience are responsible for creative products; and it is impossible to identify the initial idea that leads to creative products.<sup>6</sup> In the creative realm, Ericsson's work is limited, as he uses as a measurement tool the amount of creative output as opposed to creative quality; however, the crux of his work concludes that creativity results because "when the performers have mastered all the essential

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<sup>3</sup> Ericsson et al, "The Role of Deliberate Practice in the Acquisition of Expert Performance," 365.

<sup>4</sup> Ericsson et al, 394.

<sup>5</sup> Mihaly Csikszentmihalyi, "Creativity" in *Encyclopedia of Human Intelligence* Volume 1, ed. by R.J. Steinberg (New York: Macmillan, 1994): 299.

<sup>6</sup> Ericsson, "Creative Expertise as Superior Reproducible Performance: Innovative and Flexible Aspects of Expert Performance, 329.

knowledge and skills, elite performers initiate the independent pursuit of original contributions to the domain.”<sup>7</sup>

A direct challenge to Ericsson from a 2016 article in *Psychology of Learning and Motivation - Advances in Research and Theory* begins by acknowledging his position: “Obviously, people are not born with the specialized skills and knowledge that are necessary for success in complex domains such as music and chess.”<sup>8</sup> The authors credit Ericsson with identifying the importance of deliberate practice in skill acquisition; however, they reject his claim that genetics have no influence on expertise or expert performance. Instead, the article suggests a framework for expertise that is built upon several factors: opportunity, basic ability, personality, domain-relevant experience, developmental factors, and genetic factors.<sup>9</sup> The figure below illustrates the theory of Hambrick et al. about the structure of expertise and the various factors that have the potential to influence one’s ability to achieve expert performance in any given field. One factor that stands out amongst the authors’ findings is basic ability: notably, the authors found that a person’s capacity for working memory (memory stored in a part of the brain that is easily accessible for the performance of tasks or skills) greatly determined the quality of their expertise.<sup>10</sup> So, one might say that talent does exist; however, it is a talent for working memory.

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<sup>7</sup> Ericsson, 331.

<sup>8</sup> David Z. Hambrick, Brooke N. Macnamara, Guillermo Campitelli, Fredrik Ullén, and Miriam A. Mosing, “Beyond Born versus Made: A New Look at Expertise,” *Psychology of Learning and Motivation - Advances in Research and Theory* 64 (2016): 22.

<sup>9</sup> Hambrick et al., “Beyond Born versus Made: A New Look at Expertise,” 22-39.

<sup>10</sup> Hambrick et al., 24.

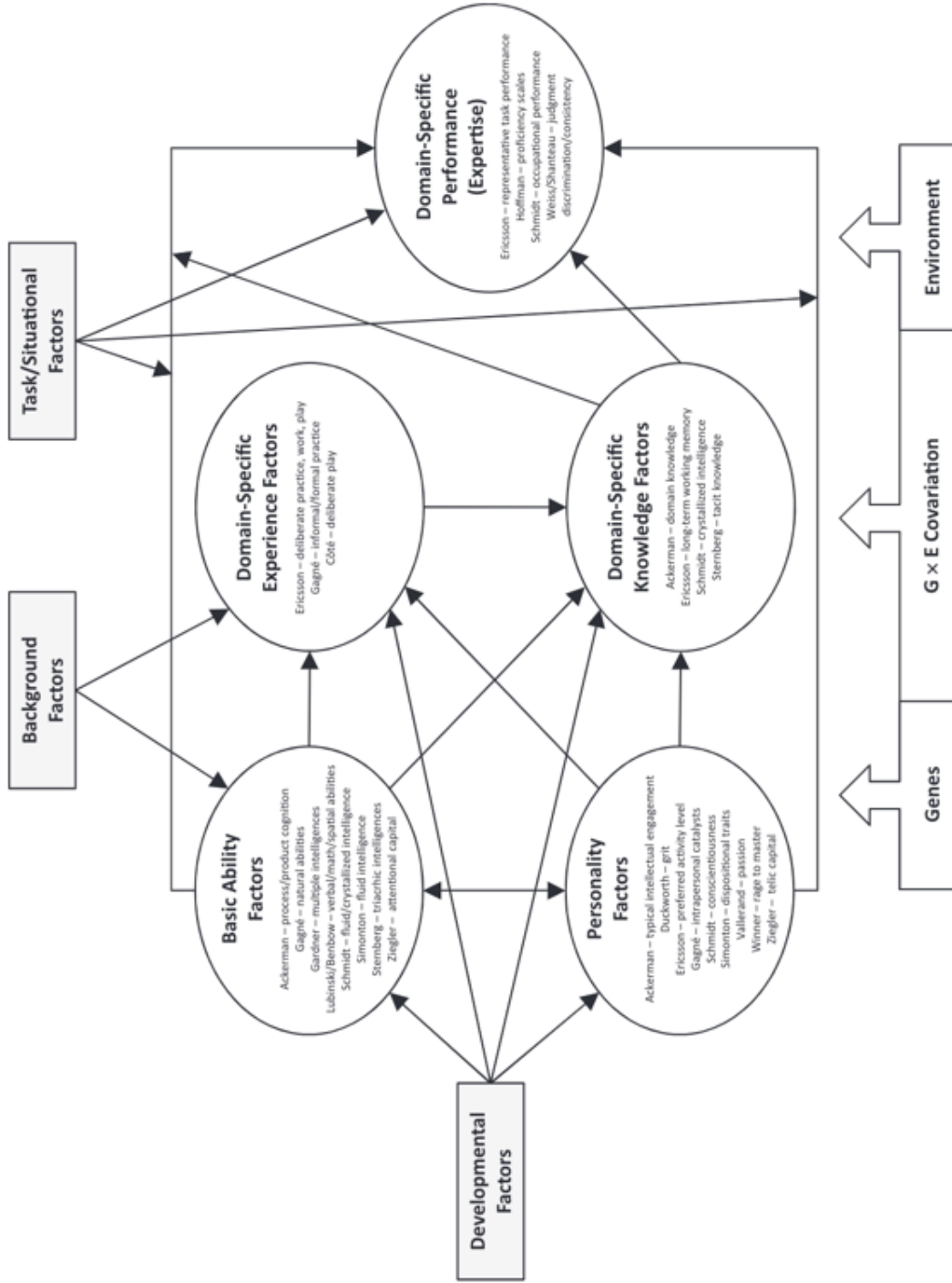


Figure 3.1. Factors Influencing Expertise<sup>1</sup>

Why is it necessary to discuss talent in this context? The question raises another question: should teachers care about these particulars regarding talent? Upon first consideration, it seems that a conversation about talent is irrelevant to educators. After all, a student-centered teacher who embraces the principles outlined in Chapter 2 of this paper would “consider each student’s special needs” and tailor their instruction to the specific needs of that student.<sup>11</sup> However, a teacher’s position on talent has the potential to have a greater impact than one might expect.

Attributional beliefs are the causes to which one attributes success or failure. A student who performs very well in a competition may walk off the stage thinking: “I got really lucky today” or “I worked really hard and it paid off” or “I knew that would happen because I am so good.” All of these thoughts represent differing attributional beliefs that affect how that student will proceed in their work following that successful performance. The importance of teachers understanding their own conception of talent is best described by Asmus: “teachers can influence student’s perceived causes of success and failure in music and thus the students’ motivational characteristics.”<sup>12</sup> Teachers must be careful to acknowledge the complexity that exists in acquiring musical skills to ensure that students are not preoccupied with whether they “have” talent.<sup>13</sup>

### **Addressing Musicality**

One aspect of music-making that has suffered from a wide range of attributional beliefs is musicality. Even the very definition of it has remained ambiguous in both the musical and scientific fields. This portion of the paper borrows heavily from Michael Forrester and Emma Borthwick-Hunter’s extensive 2015 review of longitudinal studies that focus on the development of musicality in children. At the start of their article, Forrester and Borthwick-Hunter acknowledge the issues of defining musicality,

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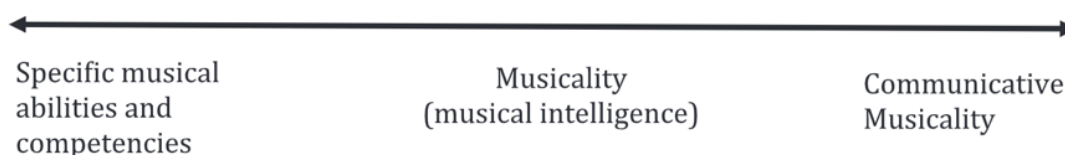
<sup>11</sup> Chang, “Establishing Rapport in One-to-One Applied Music Instruction: A Theoretical Framework for Enhancing the One-to-One Teacher-Student Relationship,” 97.

<sup>12</sup> Brian Joseph Harris, “Attributional Beliefs in Music Learning: ‘Talent’ or Hard Work?” (Master’s Thesis, University of Tennessee at Chattanooga, 2012), 43.

<sup>13</sup> Harris, 1.

suggesting that its definition evolves based on the context. The generic model relies upon a convention of what “good” or “competent” musical knowledge is. In infant development, the term is used to describe simple tasks such as the ability to recognize patterns. In psychological studies, the term is used interchangeably with “musical intelligence,” which is essentially the skills required to produce music, both in performance and composition.<sup>14</sup>

**Figure 3.2. Dimensions of Musicality<sup>15</sup>**



The figure above displays Forrester and Borthwick-Hunter’s conception of the dimensions of musicality, which range from specific (left) to general (right).<sup>16</sup> The musicality that this paper aims to address is the communicative musicality that occupies the right side of this figure, which is defined as the ability to “perform and enact multiple ways of being through musical storying and storytelling.”<sup>17</sup> In their review, Forrester and Borthwick-Hunter admit that “no agreed on stage-like picture of musical cognitive development has emerged;” however, they identify a number of important musical skills that can be developed, including the ability of musical abstraction and representation in memory.<sup>18</sup> According to a 1979 study by P.E. McKernon, working memory capacity directly influences one’s ability for musical abstraction, supporting the expertise factors outlined by Hambrick et al. in the previous section.<sup>19</sup> In the

<sup>14</sup> Michael A. Forrester and Emma Borthwick-Hunter, “Understanding the Development of Musicality: Contributions from Longitudinal Studies,” *Psychomusicology: Music, Mind, and Brain* 25, no. 2 (2015): 93.

<sup>15</sup> Forrester and Borthwick-Hunter, “Understanding the Development of Musicality: Contributions from Longitudinal Studies,” 94, fig 1.

<sup>16</sup> Forrester and Borthwick-Hunter, 94.

<sup>17</sup> Forrester and Borthwick-Hunter, 98.

<sup>18</sup> Forrester and Borthwick-Hunter, 99.

<sup>19</sup> Forrester and Borthwick-Hunter, 95.

next chapter, we will dive more deeply into this topic as it relates to imagination and musicality; however, other skills that Forrester and Borthwick-Hunter highlight are the early recognition of syntax and what they call “tonal frames.”

Malloch & Trevarthen’s 2009 writings break communicative musicality into three parameters: pulse, quality, and narrative. *Pulse*, the regular succession of tones, and *quality*, contours such as timbre, pitch, and volume, are combined into *narrative*, expression and intention communicated through *pulse* and *quality*.<sup>20</sup> The consensus among the studies reviewed by Forrester and Borthwick-Hunter is that for subjects who successfully developed communicative musicality, musical “meaning-making” activities were essential.<sup>21</sup> These “meaning-making” activities provided a direct line between the communicative aim of the subject and the musical outputs they produced. In short, communicative musicality can be taught.

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<sup>20</sup> Stephen Malloch and Colwyn Trevarthen (ed.), *Communicative Musicality* (Oxford: Oxford University Press, 2009).

<sup>21</sup> Forrester and Borthwick-Hunter, 99.

## Chapter 4: REIMAGINING MUSICALITY – AUDIATION AND APHANTASIA

The rest of this paper will address and propose a method for teaching students who appear to struggle with expressivity in music due to a lack of connection with that inner world of imagination, inner hearing, and emotion. These chapters are in no way suggesting that all expressive issues are stemming from the same problem; however, it is the hope that the following chapters describing a specific phenomenon will encourage music educators to explore all avenues and possibilities of teaching musicality for the betterment of their students.

### Audiation

Coined by music educator Edwin Gordon, *audiation* is the hearing of music in one's mind when the sound is not physically present.<sup>1</sup> Beginning in the 1980s, Gordon established a widespread educational method based on the principle of audiation, writing more than forty books and founding the Gordon Institute for Music Learning, which continues to operate to the present day following his death in 2015. Gordon's presupposition is simple: "All of us are born with the potential to develop our audiation, but to make use of that potential we must have an appropriate musical environment."<sup>2</sup> Some refer to this phenomenon as *musical imagery* or even "thinking in music"<sup>3</sup> but, regardless of which term is used, the assumption is the same: "it is a common, every-day experience even for those with no musical training."<sup>4</sup>

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<sup>1</sup> Edwin E. Gordon, "Research Studies in Audiation: I," *Bulletin of the Council for Research in Music Education* 84 (Fall 1985): 34.

<sup>2</sup> Edwin E. Gordon, "All about Audiation and Music Aptitudes," *Music Educators Journal* 86, no. 2 (September 1999): 43.

<sup>3</sup> Edward T. Cone, "Thinking (About) Music," *The Proceedings of the American Philosophical Society* 138, no. 4 (December 1994): 470.

<sup>4</sup> Rebecca W. Gelding, William Forde Thompson, and Blake W. Johnson, "The Pitch Imagery Arrow Task: Effects of Musical Training, Vividness, and Mental Control," *PLOS ONE* 10, no. 3 (Spring 2015): 1.

In his more than forty years of research, Gordon codified a system of audiation, identifying seven types and five stages of the audiation process.<sup>5</sup> His belief in the necessity of audiation is reflected in the following quotes: “audiation is to music what thought is to language” and “sound becomes music only through audiation, when, as with language, you translate the sounds in your mind to give them context.”<sup>6</sup> The main body of Gordon’s work was produced at a time when there was a strong belief in aptitudes (essentially another word for “talent”) and measures such as Gaston’s “Test of Musicality” were used in common practice.<sup>7</sup> These tests were severely limited in their scope: Gaston’s “Test of Musicality,” for example, consists of four sections testing the “ability to hear whether or not a given pitch is present in a chord,” “differences between a melody that is heard and a melody that is printed,” “whether the final note of an incomplete melody should be higher or lower,” and “any pitch or rhythmic changes that occur in a melody repeated several times.” A fine test for a sight singing course, but by no means a comprehensive test of musicality.

Aptitude tests like Gaston’s were typically applied to children, as was the bulk of research that produced Gordon’s work, and the criteria for measurement would not hold up to today’s research standards. One example is that Gordon’s original research study in audiation made a direct correlation between how accurately a group of kindergarteners recalled and reproduced a melody and rhythm that was played for them and their level of audiation ability.<sup>8</sup> Any number of factors (previous musical training, familiarity with the music, etc.) could impact these abilities and this measurement is not empirical proof of audiation abilities.

Despite this, the widespread impact of Gordon’s work cannot be overstated and the assumption that audiation plays a critical role in music-making is widespread. In modern research, work on audiation has been continued by Andrea Halpern and her students, who have conducted several studies on *musical*

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<sup>5</sup> Gordon, “Research Studies in Audiation: I,” 37.

<sup>6</sup> Gordon, “All About Audiation and Music Aptitudes,” 42.

<sup>7</sup> Vance A. Yoder, “A Study of Gaston’s ‘Test of Musicality’ as Applied to College Students,” *Journal of Research in Music Education* 20, no. 4 (Winter 1972): 494.

<sup>8</sup> Gordon, “Research Studies in Audiation: I,” 40.

*imagery* from a cognitive neuroscientific perspective. Halpern, who did several behavioral studies in the 1980s, refocused her work in the early 2000s to identify which parts of the brain were responsible for musical imagery.<sup>9</sup> While she and her research teams have made important discoveries regarding the neuroscientific aspects of musical imagery, the basic studies assume that musical imagery is used to achieve musical imagery tasks, without considering other cognitive strategies.<sup>10</sup> The body of Halpern and her students' work can be explored further via references; however, it is important to note that this vein of research on musical imagery utilizes a test of musical imagery (Bucknell Auditory Imagery Scale) that was developed by Halpern herself.

### **Aphantasia**

Even more so than musical imagery, visual imagery is a phenomenon that is recognized by all: Plato called it “the eye of the soul” and Aristotle said that it was necessary for all thinking.<sup>11</sup> As William James stated over a century ago, “A person whose visual imagination is strong finds it hard to understand how those who are without the faculty can think at all. Some people undoubtedly have no visual images at all worthy of the same, and instead of seeing their breakfast table, they tell you that they remember it or know what was on it.”<sup>12</sup> This quote refers to a famous account from 1880, during which Francis Galton asked a group of his scientifically-minded friends to imagine what their breakfast table looked like and to identify everything that it was on it. To his surprise, they were all perplexed by the task, ridiculing him for suggesting that they could “picture” something in their minds.

Over 130 years later, the phenomenon of no visual imagery described by Galton was given a name: *aphantasia*.<sup>13</sup> Adam Zeman and his team of researchers who coined the term worked with a patient who suffered from a trauma that caused his aphantasia (Patient MX) but suggested that around 2% of the

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<sup>9</sup> Andrea R. Halpern, “Cerebral Substrates of Musical Imagery,” *Faculty Contributions to Books* 127 (2001): 180.

<sup>10</sup> Halpern, “Cerebral Substrates of Musical Imagery,” 185.

<sup>11</sup> Gosetti-Frencei, “Envisioning the Mind’s Eye and Other Imagings,” 186.

<sup>12</sup> Gosetti-Frencei, 198.

<sup>13</sup> Adam Zeman, Michaela Dewar, and Sergio della Sala, “Reflections on Aphantasia,” *Cortex* (2015): 2.

population are aphantasic.<sup>14</sup> This has since been re-estimated at nearly 4% in a large-scale study in 2022.<sup>15</sup> This study focused on congenital aphantasia (from birth) and, while the research is still in its infancy, the original studies by Zeman and his team assumed that aphantasics do produce images in order to complete imagery tasks but are not able to perceive them in their awareness (due to a lack of metacognition).<sup>16</sup> Since then, research has shown that when subjects imagine visual representations, several areas of the frontal and parietal areas of the brain activate in addition to the visual cortex. Rebecca Keogh and Joel Pearson have suggested that “aphantasics have a deficit with [the] feedback connections from frontal cortex, and are unable to activate the visual cortex in such a way as to create a visual image in mind.”<sup>17</sup> Simply put, those with congenital aphantasia do not experience visual imagery and are unable to develop the skill due to their unique brain functions. In popular culture, the term “total aphantasia” is used to describe a complete lack of inner experience whatsoever: no inner visual, auditory, or other experiences.

Notable for our purposes, the research on aphantasia began with an important discovery: the original aphantasic Patient MX exhibited “successful performance in visuomotor tasks in the absence of visual perceptual experience.”<sup>18</sup> In other words, visual imagery is not needed to perform imagery tasks. To explain this, Zeman and his team explained that Patient MX utilized propositional processes (educated guessing) and tacit knowledge to successfully complete the imagery tasks.<sup>19</sup>

With musical imagery, the research, discussion, and pedagogical principles that have emerged ignore the possibility that musical tasks could be completed without musical imagery. This is problematic for several reasons, notwithstanding the negative attributional beliefs that result in students who are

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<sup>14</sup> Adam Zeman, Michaela Dewar, and Sergio della Sala, “Lives without Imagery: Congenital Aphantasia,” *Cortex* 73 (December 2015): 378.

<sup>15</sup> C. J. Dance, A. Ipser, and J. Simner, “The Prevalence of Aphantasia (Imagery Weakness) in the General Population,” *Consciousness and Cognition* 97 (January 2022).

<sup>16</sup> Rebecca Keogh and Joel Pearson, “The Blind Mind: No Sensory Visual Imagery in Aphantasia,” *Cortex* 105 (August 2018): 54.

<sup>17</sup> Keogh and Pearson, 58.

<sup>18</sup> Adam Z.J. Zeman, Sergio della Sala, Lorna A. Torrens, Viktoria Eleni Gountouna, David J. McGonigle, and Robert H. Logie, “Loss of Imagery Phenomenology with Intact Visuo-Spatial Task Performance: A Case of ‘Blind Imagination,’” *Neuropsychologia* 48, no. 1 (October 2009): 145.

<sup>19</sup> Zeman et al., “Loss of Imagery Phenomenology with Intact Visuo-Spatial Task Performance: A Case of ‘Blind Imagination,’” 153.

incapable of producing musical imagery to achieve musical tasks. It does not take into account the range of inner experiences that exist in the population. On a personal note, I identify as someone with total aphantasia, lacking in any sort of visual or auditory imagery, and yet I am able to understand and produce music at a very high level using other methods. In the words of William James, “there are imaginations, not ‘The Imagination,’ and they must be studied in detail.”<sup>20</sup>

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<sup>20</sup> Gosetti-Frencei, 200.

## **Chapter 5: DEVELOPING MUSICALITY THROUGH ANALYSIS**

### **- CONE’S HERMENEUTICS**

Reflecting on my own experience as a teacher and student colleague, I can recall several instances during which a student performance elicited the thought that the performer was missing some connection to their emotional core. A standard practice for studio teachers attempting to tap into students’ emotional worlds is to appeal to their imaginations: “imagine the sound of babbling brook” (Chopin: Op. 28, No. 3), “picture the girl skipping through the forest with the wolf hiding behind the bush, ready to swipe at her” (Rachmaninoff: Op. 39, No. 6), “picture the ballroom, with women in giant gowns getting swept off their feet.” (Ravel: La Valse)

Excluding very extreme neurological cases, humans, at their core, are emotional beings. The way emotions are expressed, are, of course, as different, as are the way they are felt. For aphantasics and others that lack inner sensory experience, appealing to imagination in order to activate an emotion is ineffective and other avenues of engagement are necessary.

The following is a summary of the great 20<sup>th</sup> century music theorist Edward T. Cone’s work on analysis and hermeneutics. Cone, who has already been referenced in this paper for his views on the role of artists in the university system, clearly expressed his belief that imagination and auditory imagery are essential for musicality and expression.<sup>1</sup> What is fascinating is that, either unknowingly or through logical reverse engineering, Cone consistently expounds upon a method for arriving at musical expressivity through clearly logical and “cerebral” methods, informed by his vast knowledge of the repertoire and music analysis. The aim of the next two chapters is to explain the essence of Cone’s theory and to distill it into a practical method for teaching musicality.

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<sup>1</sup> Cone, “Thinking (About) Music,” 470.

Writing in the mid-20<sup>th</sup> century, Cone achieved notoriety during the height of serialism by debating the merits of twelve-tone music. His position is summarized in one of his earlier works: “expression, by its very definition, implies a relationship between the work of art and something else.”<sup>2</sup> In his attempts to identify a meaningful method for analyzing such music, Cone looked to the literary arts, borrowing a significant amount of terminology and concepts from literary analysis. Cone tried to remedy what he viewed as academic music composition’s obsession with the syntax of serialism (the construction, order, sequence) by focusing his work on the semantics of it (how to derive meaning).

Cone’s work blended musical and literary analysis, which he applied not only to current compositional trends, but also to canonical music (especially 19<sup>th</sup> century music), as well as performance and artistry. Nothing displays this more aptly than the 1977 article “Three Ways to Read a Detective Story – Or a Brahms Intermezzo.” In it, Cone attempts to define the “perfect” hearing of a work of music by drawing a connection between music analysis and the way one might read the Sherlock Holmes story “The Speckled Band” by Arthur Conan Doyle. As the work unfolds, truths are revealed in complex ways: structural truths, character truths, and emotional truths are all unveiled in a specific way and in a succession of time.<sup>3</sup>

What Cone acknowledges and focuses his efforts toward is the experience of the reader as these truths come to light, working towards an explanation of what he describes as “an ideal Third Reader,” who experiences the work in the most perfect, comprehensive way.<sup>4</sup> In “The Speckled Band,” the first reading renders a simple, pleasurable story, quite straightforward until the ending, when the villain is caught, and Dr. Watson offers an explanation. The second reading of the story will have been informed by the outcomes laid out by Dr. Watson, who, as is the tradition at the end of Sherlock Holmes stories, gives a detailed, chronological analysis of each event that led to the capture of the villain. The second reader

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<sup>2</sup> Edward T. Cone, “Beyond Analysis,” *Perspectives of New Music* 6, no. 1 (Winter 1967): 46.

<sup>3</sup> Edward T. Cone, “Three Ways to Read a Detective Story – Or a Brahms Intermezzo,” *The Georgia Review* 31, no. 3 (Fall 1977): 556-559.

<sup>4</sup> Cone, “Three Ways to Read a Detective Story – Or a Brahms Intermezzo,” 563.

will focus on each small detail of the original story, working to understand how each event relates to one another and to the overall narrative. The third “perfect” reader of the story has done the work to analyze these details and understands the story in the most intelligent and comprehensive way. This reader, informed by analysis, complexly understands the story, but reads with the excitement of the original reading, actively forgetting what has been learned to experience it anew.

What Cone is describing here is not unfamiliar in the practice process: a precursory reading of the score to understand the structure followed by an extended, detailed study and practice of the piece’s sections concluding with a performance-ready piece, during which the performer “forgets” those details, but understands the piece comprehensively. What is sometimes missing is the actual experience of the music, which is what Cone is addressing when he describes what the ideal listener/performer is doing: “an active participation in the life of the music by following its progress, attentively and imaginatively, through the course of one's own thoughts, and by adapting the tempo and direction of one's own psychic energies to the tempo and direction of the music”<sup>5</sup> The rest of Cone’s article analyzes Brahms’s *Intermezzo, Op. 118, No. 1*, through the lens of the three readings, with similarities to the practice process described above. In the first hearing, one listens for what the music is trying to say in general; a second hearing analyzes all the music’s parts and ideas, utilizing theory, technique, and form; and a third hearing yields a full appreciation and experience of the piece.<sup>6</sup>

Before we discuss how this method can be applied to teaching musicality and expressivity, there is another layer of the process that draws from Cone’s later work on musical hermeneutics. Cone’s view of hermeneutics, or “the art or science of interpretation,” parses out congeneric (meaning derived from the music itself) and extrageneric (“reference of a musical work to non-musical objects, events, moods, emotions, ideas, and so on”) elements.<sup>7</sup> Cone’s observations about musical hermeneutics are reflected in

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<sup>5</sup> Cone, “Three Ways to Read a Detective Story – Or a Brahms Intermezzo,” 563.

<sup>6</sup> Cone, “Three Ways to Read a Detective Story – Or a Brahms Intermezzo,” 564-574.

<sup>7</sup> Edward T. Cone, “Schubert’s Promissory Note: An Exercise in Musical Hermeneutics” in *Schubert: Critical and Analytical Studies*, ed. Walter Frisch (Lincoln: University of Nebraska Press, 1986), 13-14.

my own experiences as well: when students (and some performing artists) describe their interpretation of a piece, they often deal in “surface generalities,” where they think they are describing the piece, but are merely describing the genre.<sup>8</sup> Like many of the topics already discussed in this paper (talent, musicality, etc.), specificity is essential. The goal for all teachers is to help students recognize that, as Cone puts it: “the locus of expression in a musical composition is defined by neither its wider surfaces nor its more detailed motivic contours alone, but by its comprehensive design, which includes all the sonic elements and relates them to one another in a significant temporal structure.”<sup>9</sup>

For many performers, one’s personal emotion is the catalyst and, in the context of Cone’s three hearings, likely *is* the first hearing, acting as the baseline upon which the second hearing might crystalize that personal emotion into a comprehensive understanding with informed analysis and technical work. For anyone whose inner experiences are similar to those described in Chapter 4 (i.e. lacking visual or auditory imagery), beginning with personal emotion is not only difficult, but sometimes impossible. Utilizing Cone’s three hearings and his work on musical hermeneutics, it is possible to construct an approach to musicality and expression that appeals to alternative cognitive functions (logical or cerebral) to achieve the same level of comprehensive understanding.

The teaching method that I have developed and used on my own students involves redefining Cone’s work into with two different categories: the first being a modified version of Cone’s three hearings and a second set of levels for musical hermeneutics. There are several generalities purposely built in because this method is meant to apply to advanced students that arrive with varying levels of skill and knowledge (recalling the “consider students’ special needs” from Chapter 2).

Beginning with the three *stages of listening*, we have the following: *structure* (stage A), *details* (stage B), *experience* (stage C). These stages are only slightly modified from Cone’s three hearings; however, they will be repeated here. Any conversations in lessons that revolve around structure or

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<sup>8</sup> Cone, “Schubert’s Promissory Note: An Exercise in Musical Hermeneutics,” 15.

<sup>9</sup> Cone, “Schubert’s Promissory Note: An Exercise in Musical Hermeneutics,” 16.

understanding the whole work fall into stage A, because we are considering the work “from the bird’s eye view.” Stage B is the most encompassing of the stages and involves all work on the technique, theory, analysis, and more for the sections of a piece or the piece in its entirety. Stage C is the broadest and involves the experience of performing the piece, ranging from memorization and stamina to the emotional and physical response of the student to the music. In an ideal lesson environment, we switch between the stages constantly and the work done in these stages can apply to anything related to the music, not strictly musicality and expression.

The heart of this approach lies in the *levels of meaning* that are constructed based on Cone’s views of musical hermeneutics: *practical* (level 1), *general* (level 2), and *personal* (level 3). Everything discussed in lessons that deals with the music itself is categorized into level 1. There is not enough paper to write all that could possibly encompass; however, it is purposely the largest category because it is the only level that focuses on congeneric elements. For students who rely on logical functions, this is their baseline, because it is practical, measurable, and clearly identifiable. Level 2 is the first step towards constructing meaning beyond what is inherent in the music and refers to the “surface generalities” that Cone referenced. Any work on genre, style, and general emotional state falls into this category. The final level, informed by the work done in levels 1 and 2, involves constructing meaning based on the student’s personal experiences, emotions, and opinions. Level 3 can be applied as broadly as the entire piece or as minutely as a single line or measure.

The *levels of meaning* are meant to be used in succession during the lesson, as opposed to freely moving between them, to draw a clear line from the logical to the emotional. Used in conjunction with the *stages of listening*, teachers can use the *levels of meaning* to successfully guide students towards a comprehensive understanding and expressive interpretation of any piece of music. While the structure of this method might seem simple and straightforward, there are several pitfalls that will consistently arise. To illustrate and address these potential issues and to experience the method at work, the final chapter of this paper will summarize a real lesson scenario during which this method was used with a student at Indiana University Jacobs School of Music.

## **Chapter 6: CASE STUDY - A MODEL FOR TEACHING**

### **COMMUNICATIVE MUSICALITY**

To illustrate the method outlined in the previous chapter that appeals to students' logical cognitive functions to build a conception of musicality and expressivity in performance, this chapter will summarize a real scenario from a private lesson given at Indiana University Jacobs School of Music. The student, Trevor (real name redacted), had several years of private instruction on the piano at the time of this lesson and displayed remarkable technical facility. Trevor showed signs of high intelligence and was inquisitive, but reserved, in personal interactions. In piano lessons, Trevor chose repertoire that was challenging and possessed the technical facility to execute even the most difficult passages accurately. A performance by Trevor was usually flawless; however, his playing might be described as emotionless and clinical.

After a few months of private lessons, it became clear that Trevor was not interested in exploring the expressive or "musical" aspects of the pieces that he was working on and was instead primarily focused on the accuracy of the notes and learning things quickly. Trevor was introduced to the levels of meaning in the context of working on Var. IV of Liszt's Totentanz.

Var. IV. (canonique)  
Lento.

The musical score for Liszt's Totentanz, S. 126, Var. IV is presented in three systems. The first system begins with the tempo marking 'Lento.' and the mood '(religioso)'. It includes dynamic markings 'p' and 'poco rit.'. The second system features a 'cresc.' marking. The third system includes 'poco rit.' and a 'Vi- Cadenza ad lib.' marking. The score is written for piano and includes various rhythmic notations such as slurs, dotted rhythms, and complex chordal structures.

Example 6.1. Liszt: Totentanz, S. 126, Var. IV

The three variations preceding this one all present with straightforward technical challenges that Trevor could identify: dotted rhythms (Var 1), scalar flourishes (Var 2), and chordal dotted rhythms (Var 3). When we arrived at Variation IV, Trevor played it in much the same way as the previous three variations: straightforward and note-accurate. In the absence of an overt technical challenge, we began to discuss expressive qualities: Trevor's responses indicated a fixation on information gleaned directly from the score itself, so we discussed the *levels of meaning*. The following script is a recreation of an excerpt from our lesson:

TEACHER: So, we have identified all the right markings at the start: slurs, piano, crescendo, ritardando, decrescendo, rolled chord, grace notes, fermata. What does all of that communicate to the listener? What is Liszt trying to say?

TREVOR: I don't get that. It says what the markings say.

TEACHER: You are right! So, let's talk about that some more: can we agree that, in this piece, the music is trying to express something?

TREVOR: Yes.

TEACHER: Great, so let's say we have three levels. You can call them whatever you want, but on the first level we have all the things that the notes on that page are telling you to do. So, all the expressive markings, slurs, tempo, everything. So, start there for this first phrase. What is the music telling you to do?

Var. IV. (canonique)  
Lento.

Example 6.2. Liszt: Totentanz, S. 126, Var. IV, m. 1-4

At this point, Trevor will reveal his capacity for understanding the music itself – his musical skills, knowledge, and awareness - all within the confines of Level 1 to help distinguish those elements from those that follow in the other levels.

TREVOR: There is a descending line with slurs. And it is soft. The layers keep adding. There is a rolled chord on the first beat of the third measure, so there is some emphasis on that. Then we crescendo to the cadence and slow down to the end.

TEACHER: Perfect. So, that is Level 1 and already we have a lot of things to think about. Let's see if we can agree on something else: in this piece, Liszt is using the music to communicate something beyond just what is on the page. And he gives us a big hint at the start. Do you agree? Any ideas?

TREVOR: Religioso?

TEACHER: Exactly. So, we have something on the page that unarguably has nothing to do with music, right?

TREVOR: Right.

TEACHER: So, now we reach Level 2. Anything about the music that represents something other than the music itself: it can be an emotion, an idea, a place, setting, really anything. And you can justify it with any element of the music that means something to you. So, let's start with what Liszt already gave us: *religioso*. What does that mean for this piece?

TREVOR: Probably serious.

TEACHER: What else?

This is a critical part of the process in which it is essential to differentiate between creating meaning at Level 1 and Level 2. Trevor, and many other students, show the predilection to slip back into Level 1 frequently and the teacher must parse that out.

TREVOR: Well, it sort of looks like choral music.

TEACHER: It does! So far, we have music that is evoking a choir in a religious setting, agreed? What else is there?

TREVOR: Agreed. There is a rolled chord, so it needs emphasis.



**Example 6.3. Liszt: Totentanz, S. 126, Var. IV, m. 2-3**

TEACHER: Okay, that's good, but we already said that in Level 1. What is Liszt trying to say by putting the rolled chord there?

TREVOR: That there should be emphasis on it.

TEACHER: Yes, and why should there be emphasis? Let's rule some Level 1 things out: is this a particularly important chord in the chord progression?

TREVOR: No.

TEACHER: Do we need to roll this chord to play it?

TREVOR: No.

TEACHER: Okay, anything else from Level 1 that could tell us why we need to roll this chord?

TREVOR: No.

TEACHER: Then, it must be something in Level 2 – so, something that is communicating meaning beyond the music itself. Think about that in the context of what you said earlier about choral music. What is happening in the top line here?

TREVOR: There is a jump.

TEACHER: Right!

*[Trevor looks puzzled]*

TEACHER: Okay, so what is going in your head? You look confused.

TREVOR: I don't really understand what we are doing. I get the choir and the religious thing, but I am playing piano and I don't see how it relates. I am still going to be playing the piano – it's not like it is a real choir.

TEACHER: That's a great point. So, have you sung in choir before?

TREVOR: Yes.

TEACHER: Okay, so you know what it feels like, and sounds like to be in a choir. I have, too, and the things that I know about choral singing is that all the voices must blend and, for the most part, it's very smooth because there are many voices singing at once. Do you agree?

TREVOR: Yes.

TEACHER: So, if we stay in Level 2 for a minute – we are evoking a choir in a religious setting – now, we must take the tools out of our piano-playing toolbox that will help us get sounds out of the piano that are like choral singing. What might those be?

TREVOR: Legato, soft.

TEACHER: Yes! And, also, the attack of the notes. Unlike the previous variations, there will not be any direct sounds here. Everything is blended together. Make sense?

TREVOR: Yes.

TEACHER: Good, and this is a perfect segue into what we were just talking about with the rolled chord. What happens when you are singing and you have a big jump?

TREVOR: It takes time to get to the next note.

TEACHER: Exactly right. So, we just solved the riddle of the rolled chord by using Level 2. Let's try this first phrase again.

*[Trevor plays the first phrase]*

TEACHER: What do you think about this process so far?

TREVOR: It makes sense. It's different than I am used to, so I'm not sure yet. But I get it.

TEACHER: Different is good! Just remember, in your mind, to keep Level 1 things separate from Level 2. Level 2 is all about the "why". If you find yourself practicing something in a passage, but you aren't thinking about why it is written this way, you are stuck in Level 1.

TREVOR: Yeah, that makes sense.

Once the student indicated that the work in Level 1 and Level 2 were clearly different and demonstrated the ability to see the difference, it was time to move on to Level 3.

TEACHER: So, Level 3. This is the tricky one and something that you must decide for yourself. Once we are confident about our interpretation from Level 2, the next thing to do is to relate the music to something tangible that is meaningful to you. It can be an experience, a personal situation, your emotions, something you imagine – it can even be what we worked out in Level 2, if it is something that you clearly feel or know authentically.

TREVOR: Okay, but that's a little bit harder.

TEACHER: I know it is. Here's an example: I was playing Brahms 2<sup>nd</sup> Concerto for my teacher, and he was giving a beautiful description of the Viennese Alps and how a certain passage was evoking the landscape – it was incredibly detailed, up to how the mountains penetrated the clouds and the sun showed through them. It was a lovely picture but did not really mean anything to me until I spent some time with the passage myself and took that description and applied it to what I knew: the mountain scene in Aspen, Colorado. I could tangibly understand what it felt like to gaze upon the beautiful scenery there and that is what I used as my Level 3 for that passage.

TREVOR: Yeah, that makes sense.

TEACHER: Think about what your Level 3 is for this passage. You don't have to tell me what it is unless you want to, but it has to be something that you authentically know for yourself. Why don't you think for a few minutes and then play the passage again.

*[Trevor plays the passage again]*

TEACHER: It sounds beautiful. Very different than what you did the first time. What is different for you in how you are thinking while you play?

TREVOR: Well, I was thinking about the different levels and definitely wasn't thinking about the notes, which is what I usually do. It feels really different but I like it.

TEACHER: That's great, Trevor. In an ideal world, this Level 3 playing is where we want to be. And you can see it takes work to get there. We are going to move on to something else now, but in your practice this week, do you think you can apply this process to the rest of the variation? If nothing else, it's a great exercise in thinking about music differently.

TREVOR: Yes, definitely.

Throughout the course of this segment of the lesson, it became apparent that Trevor had never thought about music in this way and that his thought processes were firmly planted in logic. Because of this, we took a very small amount of music and worked through the *levels of meaning* in detail. It was also vital that expectations were not too high about results.

It is obvious that the content (what is being taught) here is not revolutionary by any means. For many students, a simple “play this like a choir in church” could yield the same results as what we were aiming for in Trevor’s lesson. What is different about this method is that the implicit is made explicit: the *levels of meaning* provide a tangible structure for building the “why” and “how” of playing each passage and that is something that Trevor and many other music students need.

For Trevor, Totentanz proved to be the ideal piece to begin this type of work: it contained the necessary technical challenges that kept him interested, provided easily digestible basic thematic material, and presented that material in a series of variations that helped us explore several expressive states, ideas, and possibilities. If a teacher is interested in introducing a student to the Levels of Meaning, it is advised that the teacher choose repertoire with similar qualities that is accessible and not technically challenging for the student. This will allow for focused attention to be paid to the important extrageneric (expressive, musical) aspects of the music, without the undue distraction of solving technical challenges.

Tedious as it may seem to take a large portion of lesson time to work through a single variation, the result was well worth it. The results are not always tangible, nor are they immediately evident: the work on the *levels of meaning* is an internal process for the student. And, as discussed in Chapter 2, this type of approach is not results-driven, it is process oriented. Trevor’s playing was not immediately transformed following this initial lesson, but he responded at the end of the session with something important and gratifying: “Thank you. I want to do more of this type of work. Nobody has taken the time to explain music this way to me and I think I am starting to understand what other teachers and classes I am taking have been talking about.”

## Chapter 7: CONCLUSION

The title of this paper “Is it Unteachable?” refers to the expressive and musical aspects of performance that allure so many young music students, even at the collegiate level. By no means do I claim that teaching such things is simple: there is certainly a reason that musicality has been consistently attributed to an unteachable innate ability, talent, or gift. While expressivity may be difficult to teach, it is the hope that this research articulates that it is not impossible when teachers possess the necessary mindset, tools, and patience.

For any teacher, the goal must be to give to the student what the student needs. As discussed in Chapter 2, this requires teachers to make the space for students to articulate their needs to allow the teacher to craft a learning experience that addresses those needs, an approach that is antithetical to the master-apprentice model on which classical music instruction is based. In the student-centered model, the value that a teacher’s experience can provide is the ability to guide students towards their own musical self-realization and this requires careful consideration of how instructors’ feedback may affect students’ attributional beliefs.

Some teacher’s own beliefs about musicality and talent may prevent them from effectively teaching their students. If teachers attribute expressivity to an innate ability that cannot be taught, then how could they possibly teach it? Furthermore, how could a diligent student who desperately wants to learn it, learn it? To follow this logic to its conclusion, if a teacher believes that some students possess a gift for music that cannot be taught, the teacher will knowingly or unknowingly instill that attributional belief in their students. Those students without the “musical gift” will have no evident reason to pursue the craft any further. Just imagine the amount of potential creative work that has not been realized because students become discouraged and move on to other careers.

This brings us to the heart of the matter: those music students who do not fit into the traditional category of “musical,” “talented,” or “gifted.” In Chapter 4, the phenomenon of *aphantasia* showed that the inner experience of humankind is diverse and our understanding of it limited. While the discovery of

*aphantasia* was the inspiration for the logic-driven teaching method outlined in this paper, it is just one example of infinite variations in cognitive abilities that affect imagination, emotion, and expression. Appeals to imagery, audiation, and imagination in music instruction, while effective for many, are ineffectual for a large portion of the population.

The question remains: should music educators at the top of their field care about this? Why should they focus time and energy on students that do not fit the traditional mold? Twenty-first century academia is experiencing a reckoning in its traditional educational practices as Universal Design Learning supports nationwide efforts in the realm of diversity, equity, inclusion, and belonging dominate the narrative of higher education. Without minimizing the provisions that are made for students with university-recognized cognitive deficits, it can be argued that an important conversation needs to be had about the traditional methods of teaching musicality and how these practices are potentially exclusionary. It is certainly an issue of inclusivity: all music students who dedicate years of their life and significant amounts of money to attend the best music schools should be able to reasonably expect that teachers are equipped to teach them at the highest level of instruction, no matter their initial capabilities.

There is still much that we do not know about the human mind. As discoveries continue to be made and educational institutions shift their priorities towards student-centered learning, it is the teachers' responsibility to evolve their practices accordingly. In the world of private music instruction, that means letting go of some closely held beliefs about what it means to be expressive and musical.

It is my hope that this paper will encourage all private music instructors to challenge themselves to meet students where they are and to consider how they might continuously improve their approach to teaching musicality to their students. If nothing else, opening teaching practices up to new possibilities will have an enormously positive impact on students and can transform their lives.

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