

The Inner Symphony: Applying Holistic Thinking to Higher Music Education

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The Inner Symphony: Applying Holistic Thinking to Higher Music

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Abstract

Our brain functions are divided between two hemispheres - working together to process the tasks we encounter as we carry on with our daily lives. However, each activity is dominated by either the left or right “side” of the brain. Due to societal tendencies in the occidental world, much of the emphasis in education in general, and more specifically, music education and classical performance practice is placed on “left brain” activity; that which deals with analytical thinking, logic, and verbal skills.

Although these left-brain activities undoubtedly contribute to musical understanding, a system that equally nurtures the right side of the brain, (that which is responsible for governing emotion, interpretation, and holistic thinking), will aid in developing mature, well rounded musicians and contributors to society.

Drawing inspiration from the discipline of ethnomusicology, seminal literature in music education, and Daniel Pink’s *A Whole New Mind* (2006), this thesis suggests an impetus to create an educational environment better suited to develop more holistic thought processes in the field of music education particularly at the higher level.

This project is supported by a performance element, which embodies some of the principles of this thesis.

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Recognizing, understanding, and applying the human aspect of music, which would include the interpretation and expression of a piece, the creativity in composition, and the communication between performer and listener, are integral and indisputable parts of being a musician. In the words of Eunice Boardman, professor emerita at University of Illinois at Urbana-Champaign, “Music enables us to express the inexpressible. That is its power; that is its value; that is the reason for its very existence” (48). If a musician simply plays notes on a page, composes to a formula, analyzes but does not contextualize, he is functioning on a level no higher than that of a computer or, put another way, he is relying heavily on “left brain” activity.

Our brain functions are divided between two hemispheres, working together to process the tasks we encounter as we carry on with our daily lives. However, each activity is dominated by either the left or right “side” of the brain. In general, the left hemisphere processes logical, analytical tasks, whereas our right brain is the creative interpreter and synthesizer. Those tasks governed by the left-brain can be recreated, surpassed even, by the incredible technological capabilities available in this day and age. For this reason, one must conclude that the human aspect of music, that mysterious, emotional quality science cannot explain away, as well as the ability to assimilate seemingly unrelated parts into a congruent whole, can be found in the function of the right side of the brain.

Although the “left-brain” skills are integral to our development as musical beings, those that are “right-directed” must not be neglected in the teaching and performance of music. A great deal has been written on the subject supporting these claims. *The Sounding Symbol* (1995) by George Odum is one such text, which is considered to be seminal among music education literature.

According to Odam, “We need both hemispheres to live our lives fully” (10). These facts clearly demonstrate the intrinsic value of a brain functioning holistically; both hemispheres stimulated and communicating, resulting in the sort of performance that leaves no dry eyes in the concert hall, or one that simply reminds us that we are human. It would seem that, since music is a creative, emotional, whole-brain activity, music educators would be emphasizing right brain activities in their teaching, at the very least, in a balance with those that are “left-directed,” but based on my experience as a student and teacher, and my research on the topic, this may not be occurring. Although, “educators generally recognize that the more connected the learning experience is to real life, the greater and more lasting the success will be,” argue Professors Delta Cavner and Elizabeth Gould in their 2003 article “Whole Language in the Music Classroom.” Cavner and Gould continue, “it is hard for teachers to break away from what is safe, easy to implement, and easy to assess. However, the trend toward more natural instruction has valid justifications and can be applied to all aspects of education - including music” (40). In our current system, both in the public schools and universities, assessment and evaluation have become ends to which the education process tends to converge. Unfortunately, the abstract, subjective right brain skills are the most difficult to assess, therefore those skills are de-emphasized in favor of objective, concrete skills that fit within the bounds of a multiple choice question. Randall V. Bass of the *Educational Forum* writes:

Standardized testing has further institutionalized the basics as the inviolable principle in deciding what to teach and how to teach it. When teachers' pay and continued employment are dependent on how students perform on standardized tests, teachers will teach in the way they think is most likely to produce satisfactory scores. Teachers most often see memorization and drill on the basics as the most effective way to teach. As a result, the function of the educational system changes from providing students with a well-rounded education to preparing them to pass the all-important test. In effect, what were intended to be minimum standards rapidly become maximum standards (1).

Roger Sperry, who won the Nobel Prize in Physiology in 1981 for his discoveries “concerning the functional specialization of the cerebral hemispheres,” made the statement that “The main theme to emerge... is that there appear to be two modes of thinking, verbal and nonverbal, represented rather separately in left and right hemispheres respectively and that our education system, as well as science in general, tends to neglect the nonverbal form of intellect. What it comes down to is that modern society discriminates against the right hemisphere” (“The Split Brain Experiments”). Additionally, current neurological theories involving hemisphericity are discussed in the 2009 article, “Brain Detects Happiness More Quickly Than Sadness,” presented by BMC Neuroscience, “to explain the pattern of cerebral asymmetry in processing emotions. The older one [theory] postulates the dominance of the right hemisphere in the processing of emotions, while the second is based on the approach-withdrawal hypothesis, which holds that the pattern of cerebral asymmetry depends upon the emotion in question, in other words that each hemisphere is better at processing particular emotions (the right, withdrawal, and the left, approach)” (“Brain...” 1). Therefore, it can be said that both hemispheres work together, and the distinctions between right and left may not be as clear as we previously understood them to be. Also, it stands to reason that the processing of emotions would be closely involved with the processing of the emotional quality of music. In light of these comments, this thesis poses the following questions:

- To what extent is our higher music education system nurturing both sides of the brain?
- How does the curriculum for college music students prepare them to be well-rounded musicians?
- How does it prepare them to be well-rounded people?
- Is there a more holistic method for educating musicians at the university level?

In addition to the traditional sources for current trends in this field such as articles from the *Music Educator's Journal*, the use of Daniel Pink's *A Whole New Mind*, which was originally written as a tool to aid the so-called "knowledge worker" in navigating a changing landscape in the business and communications world, provides a fresh perspective with which we can discover new ways of understanding music and our connection with it, and apply that understanding to music education and performance. It is hoped that through the application of these concepts, students will come away with a more meaningful, holistic experience at the university level, and in a broader sense, the whole of their lives.

Hemispheric Dominance in Music Education

Before this line of inquiry progresses further, a working definition for the word "education" must be established. The etymology of the word is difficult to specify. There are two Latin roots from which two strongly different interpretations arise. The first is *educare* which means, "to train" or impart a particular skill- a clear, logical, left brain interpretation. The other root from which the word, education, may stem is *educere*, and although it differs by only one letter, its meaning is poles apart from that of *educare*. *Educere* means to "lead out, or forth," implying a method of teaching through the development of skills innate in the student - a more right brain approach (Billington 279-282). I suggest, based on my survey of related materials, that the latter interpretation of the word education is far more effective. Caverner and Gould echo this sentiment with their statement that "as educators, we must keep in mind that music is appealing and easy to learn when it belongs to the learner and is real, natural, whole, sensible, interesting, relevant, and purposeful. Music is unappealing and difficult to learn when it belongs to someone else and

is artificial, broken into bits and pieces, dull, and irrelevant” (43). Meaning, music becomes more accessible and in effect, “easier” to learn when we start with what the students know, and build upon that innate foundation. In his book *How Musical is Man?*, ethnomusicologist John Blacking writes, “what is ultimately of most importance in music cannot be learned like other cultural skills. It is there in the body, waiting to be brought out and developed...” (100).

In order to comprehend hemispherical dominance in the brain, one must first understand the roles of each. Although one side or the other dominates certain functions, both the left and right hemispheres work in concert through their connector, the corpus collosum, to carry out all of our daily tasks from eating breakfast to enjoying our favorite songs on the radio. (Pink discusses this topic in greater detail in *A Whole New Mind*.) Our personalities and our character are manifestations of both the degree of interaction between these hemispheres and the dominance of one side over the other in certain activities. See Fig. 1.

<p><u>Left Brain</u> Written Language <i>Reasoning Skills</i> <i>Number Skills</i> Spoken Language <i>Scientific Skills</i> Logic</p>	<p><u>Right Brain</u> <i>Interpretation</i> <i>Insight/Intuition</i> <i>Art and Music Awareness</i> <i>Imagination</i> <i>Holistic Thought</i> Emotion</p>
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Fig. 1

Sperry provides a wonderful illustration of this point when he says, “The great pleasure and feeling in my right brain is more than my left brain can find the words to tell you” (The Split Brain Experiments).

Further, one can parse out all aspects of music into functions that are governed either by the left or right side of the brain, but it is the synthesis of these functions that serves to create music. See Fig. 2.

<u>Left Brain</u>	<u>Right Brain</u>
Notation (<i>Written Language</i>)	Conveying meaning through performance or education (<i>Insight, Intuition</i>)
Analysis (<i>Reasoning Skills</i>)	Inserting one's own perspective in performance and education (<i>Interpretation</i>)
Music Theory (<i>Number Skills</i>)	Understanding the human aspect of music (<i>Art and music Awareness</i>)
Surface-level performance- Just playing the notes (<i>Spoken Language</i>)	Composition and Improvisation (<i>Imagination</i>)
Formulaic Composition- i.e. Webern (<i>Scientific Skills</i>)	Using knowledge of music theory, functional harmony, and music science to enhance performance and education (<i>Holistic Thinking</i>)
Assessment- Music School (<i>Logic</i>)	Finding and sharing the joy and/or pain of music making (<i>Emotion</i>)
Extrinsic Values	Intrinsic Values

Fig. 2

Each resource I have encountered regarding this matter, personal interviews and scholarly writing alike, has led me to believe that the consensus among music educators is that ideal teaching methods should cater to both “sides” of the brain, with the weight tilted toward the right, for as stated by Boardman, “when we ignore the emotional components of any subject we teach, we deprive students of meaningfulness” (51).

Left-brain skills are easily taught and assessed because of their objectivity. Students are presented with a series of formulae, rules, and facts, and are asked to demonstrate a cursory ability to enact these skills in an assessable way. Educating to the right brain arguably requires a greater effort on the part of the teacher and the student, but evidence shows that this kind of teaching proves to be far more beneficial to both instructor and pupil, especially in the arts. Intrinsic values are associated with the right side of the brain and

extrinsic values with the left, so it follows that “*If* music instruction is focused on helping students gain the abilities and insights necessary to understand that music is a unique, nonverbal mode of representation (thus promoting intrinsic, aesthetic values), *then* the extrinsic values of music study will naturally accrue” (Boardman 47). Thomas A. Regelski supports the argument that music education should be focused on the right side of the brain in his article “Who Knows Where Music Lurks in the Mind of Man?” with his statement that “musical response is holistic and depends on perceiving and responding to relations among parts, patterns, and connections, often occurring *simultaneously*. It should be remembered that whereas left-hemisphere functions cannot deal with simultaneous input except by alternating attention quickly the right-hemisphere’s relatively undifferentiated anatomical functioning makes this kind of processing possible” (35-36). Further, Regelski believes that “Music educators who put too much emphasis on analysis and words end up overemphasizing left-hemisphere abstract knowledge to the potential detriment of music learning, which is a nonverbal, right-hemisphere kind of knowledge” (35).

Teaching Implications of *A Whole New Mind*

A Whole New Mind, Daniel Pink’s assessment of current societal trends, is meant to apply to business practice, although he makes it quite clear that its implications are much broader. It seems that Pink’s framework could become a fitting lens through which to view the current music education system. Using his model, it will become possible to assess the efficacy of current trends in music education from a fresh perspective.

Pink discusses a shift to the “conceptual age” from the “information age” and cites this shift as an impetus to reevaluate the way we live our lives and our identity in the

traditional white-collar workforce. He describes the “knowledge worker” as someone whose job consists of “left brain directed” (L-directed) activities - in Pink’s words, “computer programmers who could crank code, lawyers who could craft contracts, MBA’s who could crunch numbers, etc” and he describes the “conceptual age” as our current state of transition into an era requiring more right brain skills - “a society built on inventive, empathetic, big-picture capabilities” (2). Pink’s ideas are reflected by Regelski when he writes “Only when people attain within themselves what may be called a ‘mental ecology,’ where all aspects and processes are interdependent and synergetic, can the human race reach its ultimate potential and solve the immense problems that inattention to right-hemisphere functioning has caused” (Regelski 33).

It is not difficult to see the need to reevaluate our identity as musicians and music educators in this changing environment as well, with digital media dominating the popular culture of our youth, and concert attendance at classical performances waning. There will always be a sub-culture of musical purists that further the tradition of Western art music, at the least, as an undercurrent in the broad scope of the musical here and now. However, we must find new and innovative ways of capturing the imagination of the next generation of young people, helping them to appreciate all music from all eras and all cultures in addition to Western Art Music.

Boardman writes, “No longer is a simple, linear approach to education acceptable,” and “Music learning will occur only to the extent that music is experienced holistically. This principle demands that we completely rethink the way we organize our instruction, within a single lesson as well as over time. Instead of the more accustomed approach teaching that moves from part to a whole, we must consider ways of guiding students from whole to part”

(52). Running parallel to our responsibility as educators to present a balanced view of the musical past, is our charge to mold and nurture students who gain not only an ability both to analyze and synthesize on a musical level, but also to apply this holistic thought to their everyday lives. Using Pink's example for working professionals in a shifting culture, we can discover a possible model for teachers and students to become more integrated musicians, and thus more integrated human beings. George Odam has this to say on the matter:

The duality of thinking and feeling, at the heart of the brain process, must be of concern to teachers, especially to those who teach in the arts, where feeling is as important as thinking. Western European education gives a great deal of priority to thinking processes and teachers are most used to strategies that promote such activity. Although we can all be aware of this duality, we also know that we do not function in such a separate way. However, we are often far too unaware of the way in which we, as individuals, use and choose opposing brain functions and integrate them. Music education must be equally concerned in stimulating both the feeling process and the thinking process and in integrating them fully (Odam 9).

Pink claims that the cause of this shift to the "conceptual age" is threefold, and can be reduced to the components he calls, "Abundance," "Asia," and "Automation." The concept of Abundance refers to the fact that since our most basic needs have already been met, "for businesses, it's no longer enough to create a product that's reasonably priced and adequately functional," in effect, "the very triumph of L-directed [left-brain directed] thinking has lessened its significance" (Pink 33). In other words, as a society, we are bombarded with so many product choices, that functionality becomes secondary to aesthetic concerns. Along these lines, Pink refers to a "new middle-class obsession with design" (33). Additionally, outsourcing has become a genuine concern for knowledge workers in the current economy. If their job consists mainly of L-directed tasks, chances are that there is someone in Asia, or a computer ("automation") who can and will do the job in a more cost effective or efficient manner.

One can draw clear musical parallels to Pink's concepts of Automation and Abundance. With the rise of technology, the musical possibilities are endless. Music can be composed, notated and performed with a few keystrokes. Music recorded in a small town in rural America can reach a small town in rural France through electronic media. These are clear examples of automation in its prime. The sheer abundance of musical genres and in fact, the mere quantity of music in the world, is staggering, yet the music education presented at institutions of higher learning continues to represent a small slice of that which exists. However, rather than focus on the negative aspects of this shift, I would prefer to focus on ways that we can use it to our advantage, adapting our teaching methods and performance practices to reflect the changing time in which we live.

Of Pink's three "causes" for this shift, I would present his concept of "Abundance" as a backdrop for the following discussion. In our current global society there is not only a material abundance and an abundance of knowledge, but also an abundance of musical idioms (and art forms in general) from which composers, performers, and educators can draw inspiration. Unfortunately, for the most part, those genres tend to be quarantined from each other. This is especially true in our higher education core curriculum. It must be possible to utilize this abundance of musical forms to nurture the right brain in conjunction with the left. I would like to see musical and artistic mediums incorporated more often in a way that maintains the integrity of each individual part, but that can also be synthesized into a whole that is better suited to accompany a more holistic conceptual age.

Pink describes “six essential aptitudes...on which professional success and personal satisfaction increasingly will depend. Design. Story. Symphony. Empathy. Play. Meaning” (2). Each of these can be applied to music, utilized to develop more integrated thinking in educators and students alike and serve as a guide to transform our teaching methods.

Before outlining their application to music, I will examine these six “aptitudes” on a more general level. **Design** refers to the aesthetic or “emotionally engaging” as opposed to the functionality of a product, service, lifestyle, etc. Pink argues, “The essence of persuasion, communication, and self-understanding has become the ability also to fashion a compelling narrative” (**Story**) (66). Boundary crossing and synthesis are categorized as **Symphony**. A balance between logic and **Empathy** is emphasized, as well as the importance of **Play**, laughter, lightheartedness, games and humor. In this age of abundance, Pink highlights the fact that we have become driven to “pursue more significant desires: purpose, transcendence, and spiritual fulfillment” (**Meaning**) (67).

Each of the “six aptitudes” can be applied to music education, and it is my belief that doing so will enrich the lives of educators, students and performers alike. I posit that the first avenue in which to explore this new method is higher education - specifically, to view the Texas State University School of Music as a microcosm for the education system as a whole. If we train music students to employ more balanced, holistic thinking at the college level and they apply it to their education and performance practices, they will have the opportunity to develop a new generation of whole minds.

Evaluation of the Curriculum

There are four general areas in which every professional, educated musician is expected to be proficient. Music theory, aural skills, music history, and performance are disciplines represented in the courses required of every music major at most universities in the United States and embody the skills considered necessary to be a well-rounded musician. Music theory is characterized as an analytical knowledge of the material, while aural skills refers to the fine-tuning of aural perception through ear training and audiation,¹ or the internalization of sound. Music history places the material in context through an understanding of the development of the traditions in which we find ourselves, and performance represents a practical application and synthesis of these other elements. Examining the teaching of these areas at the university level serves to point out the areas in which Daniel Pink's "six aptitudes" could be useful.

Music Theory

We study music theory because it allows us to recognize and label patterns in "sonic objects," as John Blacking calls them, that we consider to be musical, allowing for a thorough understanding of the material. One of the beautiful facets of Western art music is that, unlike the aural traditions most cultures of the world utilize to preserve their music, we have devised a system of symbols in the form of notation that give us a window into the music of our ancestors. For this reason, among others, a great deal of scholarly effort is spent scrutinizing and philosophizing on the theoretical qualities of music.

¹ "Audiation is the foundation of musicianship. It takes place when we hear and comprehend music for which the sound is no longer or may never have been present. One may audiate when listening to music, performing from notation, playing 'by ear,' improvising, composing, or notating music" (Audiation 1).

Now, let us examine the music theory curriculum and instruction at the Texas State University School of Music (TSUSM). When students audition for entry into the school of music, they take a Theory Placement Exam, which will determine which theory course is appropriate for them. The following is a list of the concepts that are assessed on the Theory Entrance Test taken from the TSUSM website:

Theory Entrance Test

Rhythm:

- Time signatures
- Measure completion
- Pitch notation (treble & bass clefs)

Scales:

- Notation of major & all 3 minors
- Recognition within in an excerpt

Key Signatures:

- Notation & recognition (treble & bass clefs)
- Major & minor
- Recognition from an excerpt

Intervals:

- Notation above & below given note
- Recognition of major, minor, perfect, augmented & diminished

Chords:

- Notation & recognition of triads & 7th chords
- Major, minor, augmented, diminished, major-minor, half-diminished, fully-diminished

If the student proves not to have a strong previous knowledge or ability in these areas, the skills listed above with the addition of basic sight-singing and ear-training are covered in the remedial theory course (Essential Musicianship), to be taken during the student's first semester as a music major. In the following four semesters, all music majors will take Theory courses I through IV. The curriculum for those courses, again, as presented on the TSUSM website is as follows:

<p><u>Theory I</u> <i>Elements of Pitch and Rhythm (review)</i> <i>Spelling Triads & Seventh Chords (review)</i> <i>Diatonic Chords in Major and Minor Keys (review)</i> <i>First species counterpoint</i> <i>Part writing chords in root position</i> <i>Harmonic Progression and the Sequence</i> <i>Writing Triads in First and Second Inversion</i> <i>[ch. 1-9, Kostka/Payne, Tonal Harmony, 6th ed.]</i></p>	<p><u>Theory II</u> <i>Cadences, Phrases, Periods, and Sentence</i> <i>Non-chord Tones</i> <i>Seventh Chords (V7, II7, VII7 & Other Diatonic 7ths)</i> <i>Secondary Functions (such as V/V, V7/ii, vii6/V, etc.)</i> <i>[ch. 10-17, Kostka/Payne]</i></p>
<p><u>Theory III</u> <i>Modulations Using Diatonic Common Chords Other</i> <i>Modulatory Techniques</i> <i>Binary and Ternary Forms; Sonata Form</i> <i>Mode Mixture; Neapolitan & Augmented 6th Chords</i> <i>Enharmonic Spellings & Enharmonic Modulations</i> <i>[ch. 18-25, Kostka/Payne]</i></p>	<p><u>Theory IV</u> <i>Further Elements of the Harmonic Vocabulary</i> <i>Tonal Harmony in the Late Nineteenth Century</i> <i>Twentieth-Century Music: Materials and Techniques</i> <i>Post-Tonal Theory; New Directions</i></p>

In my experience, and that of many of my colleagues, each of the above concepts is taught using a didactic approach in which the professor presents the information and the student is tested on that information in the very same context in which it was presented. The way in which music theory is assessed is divorced from practical music making, even simply from sound itself, and requires very little use of the right brain. This de-contextualizing or, as Dr. Cynthia Gonzales - Chair of the Music Theory and Aural Skills Department at TSUSM calls it, “proliferation of non-sound,” causes the lack of intra-disciplinary interaction that is necessary to train whole musicians. Students come away from the theory program feeling as if what they learned is far removed from what they do, and professors come away from their fourth semester courses wondering why their students have such a difficult time assimilating the curriculum. Cavner and Gould support these statements by pointing out that “when educators compartmentalize skills and omit meaningful and purposeful context, students lose interest, and the possibility of ultimate success diminishes” (41).

One of the overarching themes found in the theory curriculum at TSUSM is a strong focus on harmony and harmonic movement during the Common Practice Period, which began around 1600. Although the principles developed during the Common Practice Period such as functional harmony, key structure, and classical forms continue in composition today - mainly in pop and folk music - many composers, such as Richard Wagner, Arnold Schoenberg, Anton Webern, Claude Debussy, and Philip Glass, have gradually diverted from functional harmony in favor of high chromaticism, post tonality, serialism, impressionism, and minimalism beginning in the mid-late nineteenth century and spanning through to the present. In other words, the height of the common practice period is around 250 years and is concentrated in Western Europe with only a few exceptions. If students study this period exclusively, they are never exposed to the music of Africa or South America, for example, and they spend so little time on romantic harmony or post tonality, that they never gain that deep appreciation for those styles which is readily found through analysis. In addition, these harmonic concepts are taught, learned, and practiced in four-part chorale style with very few adventures into other more commonly heard vehicles. This means that the practical application of this theory is limited to a genre that has only a small place in the area of early Music History and the proper development of Aural Skills and virtually no place in the practical performance or leisure listening of the students or the professors, for that matter.

The skills listed within the music theory curriculum are highly linear, logical, and represent manifestations of left-brain activity - after all, music theory and analysis themselves fall under the category of left-brain activity. However, since the right brain is responsible for synthesizing elements into a recognizable whole, it must not be neglected in the teaching process regardless of the analytical nature of Music Theory. In the words of

Boardman, “It would seem more useful to develop a theory of instruction that will enable us to reach those goals by turning away from the traditional deconstructivist views and recognizing the constructivist nature of human learning” (50). Therefore, returning to the question of whether or not our higher music education system is nurturing both sides of the brain after reviewing the music theory curriculum, we find the scale tipped noticeably to the left side. The students are learning the building blocks of tonal music in a completely linear and reductionistic way.

Aural Skills

In societies where music is not written down, informed and accurate listening is as important and as much a measure of musical ability as is performance, because it is the only means of ensuring continuity of the musical tradition. Music is a product of the behavior of human groups, whether formal or informal: It is humanly organized sound (Blacking 10).

The importance of aural skills in the music curriculum cannot be over-emphasized. The ability to hear and interpret sounds, placing them in context, and developing the inner ear is vital to our success as musicians. The Gordon Institute for Musical Learning defines aural skills as “a cognitive process by which the brain gives meaning to musical sounds” (Audiation). If we are to be well-rounded performers, teachers, and listeners, we must be able to recognize the nuances within all musical styles, and apply them to any situation that may arise. It is the nuances that make the difference between good music and great music, and making great music requires an impeccable ear. For instance, ensemble players obviously must listen for intonation, but beyond that, knowing where they fit harmonically with the other players informs the way in which they approach the control of pitch. Additionally, if players gain the ability to “play by ear,” career possibilities open for them which would not present themselves to those players who are chained to the music stand, so

to speak, (although, this statement is not meant to take any value away from notated music).

As instructors, we must develop a keen ability to listen to our students and evaluate their playing. If we are to teach in a way that encourages creativity and ownership, we may be required to use our aural skills to transcribe pieces for our students to learn from their own music libraries. Finally, I can attest to the fact that hearing music with a finely tuned ear heightens the enjoyment of listening in an indescribable way. It is deeply satisfying to recognize the German augmented sixth chord in a Schumann Lied just as it is bordering on blissful to hear the uncommon chord progression in Carmichael's Stardust or Black Sabbath's use of the tritone, and understand how those harmonies relate to each other.

Blacking writes, "The importance of creative listening is too often ignored in discussions of musical ability, and yet it is as fundamental to music as it is to language" (10). This creative listening certainly requires a right-brain approach to teaching, however, Odam points out "unfortunately, too often the left brain work in music is not well enough counterbalanced and students too easily lose their connection with essential and basic right-brain skills related to the manipulation and perception of sound" (15).

TSUSM has very specific curriculum for the Aural Skills program. Each element of music – melody (pitch, intervals, scales), harmony (chords, progressions), rhythm (tempo, meter), form, timbre, improvisation, and singing – is outlined in terms of related concepts to be learned during each of the four required semesters. See Fig. 3 for a more detailed outline of the aural learning curriculum.

Fig. 3

Aural Learning Course Pack – FS 2008 & SS 2009 – © 2008 All Rights Reserved

Overview of the Aural Learning I-IV Curriculum

The following table gives an overview of the entire Aural Learning curriculum at Texas State University.

	Aural I	Aural II	Aural III	Aural IV
Intervals	-all 12 up or down within tonal contexts - range: voice range	- ID all 12 melodic or harmonic - stress tonal contexts - range: varied	- review all 12, harmonic and compound intervals	Same, but in atonal contexts
Chords	- triads in root pos. & inversions - major, minor, dim., and augm. for quality - sing Major and minor Catalogue	- review Major and minor Catalogue - all triads in all inversions - all 7 th -chords in all inversions	- Catalogue w/ 2ndary dominants - review chords in open position - chord with added notes - +6th chords	- review - non-tercian chord structures: focus on interval qualities (set qualities)
Harmony	- prog. w/4-6 chords - notate bass + RNs - diatonic chords in root position + primary chords in 1 st inversion + vii ^{o6} + cad. $\frac{6}{4}$ - cadence identification: auth., plagal, deceptive, half	- 6-8 chord progress. - notate outer voices and RNs - all chords in root pos. + inversions - cadence ID: perfect authentic, imperfect authentic, plagal, deceptive, half	- secondary dominants - diatonic pivot chord modulation - Neapolitan - augmented 6th chords - notate outer voices and RNs - pop progress.s	- review augmented 6th chords - enharmonic modulation (Ger6, o7) - notate all parts and RNs
Tuning Fork Exercises	START THIS IN AURAL II: ID of key with tuning fork (from given chord progression or melody); singing of intervals, starting on A; determination & singing of key and beginnings of songs via tuning fork			ID of given pitches in atonal context
Rhythm (perform and decipher)	- teach strategies for deciphering rhythms - basic conducting patterns - 2-4 measure patterns - 2/4, 3/4, 4/4, 6/8, 2/2 - no ties - pay attention to rhythmic grouping	- review strategies for deciphering rhythmic problems - 4 measure patterns - 2/4, 3/4, 3/8, 6/8, 9/8, 12/8, 2/2, 6/4, 9/4, 12/4, 3/2, 4/2 - conducting patterns - with ties and syncopation - triplets - 2-part exercises	- more complex and longer rhythms with ties and syncopations - 2/8, 3/8, 4/8 - 5/4, 7/4, etc. - advanced conducting patterns - 32 nd notes - changing meters - 2-part exercises	- complex rhythms as found in modern music - advanced conducting patterns - 3 against 4 and 4 against 3 - metric modulation - 2-part exercises

	Aural I	Aural II	Aural III	Aural IV
Melody (decipher)	- transcribe memorized melodies - teach strategies for deciphering melodic problems - simple diatonic melodies with simple rhythms, 10-12 pitches (level: sect. 1 of Berkowitz)	- review strategies for deciphering melodic problems - folk songs or level of section 2 Berkowitz - 12-15 pitches - with rhythm - melodic forms ID - simple 2-part dictation	- 2-part dictation - melodies with chromaticism - level of Section 3 and 4 Berkowitz	- review of 2-part dictation - review tonal melodies with chromaticism; (level as Section 4 Berkowitz) - modal and atonal melodies
Scales (S&ID)	- major and all minor scale forms	- major, minors, and church modes	- review	- review - synthetic scales
Form	- phrase and period forms of melodies (parallel and contrasting)	- review phrase and period (incl. double period) - Theme & Variation	- binary, ternary - Minuet & Trio	- review - sonata & rondo forms; - other forms
Tempo & Articulation	- distinguish Largo, Adagio, Moderato, Allegro, Presto	- new: Larghetto, Lento, Andante, Andantino, Allegretto, Vivace, Prestissimo	- review tempi - articulations (tba)	- review tempi - articulations (tba)
Timbre Recognition	- recognize all common instruments as solo instruments	- recognize instruments in small chamber ensembles	- recognize instruments in large ensembles	- rare instruments
Improvisation	- vocal improvisation over simple harmonic progressions - continue melody or rhythm	- vocal improvisation over harmonic progressions - continue melody or rhythm	- vocal improvisation that outlines specific harmonic progressions (w/ modulations)	- improvise with given rhythm or melody and / or harmonic progression
Singing (perform)	- Berkowitz, section 1 - Sing & Play Berkowitz section 1 - sing and play all triads - in class: duets (section 1)	- Berkowitz, sect. 2 - Sing & Play Berkowitz section 2 - sing and play triads and 7 th chords - sing and play scale harmonizations - in class: duets (section 2)	- review singing / playing scale harmonizations - Berkowitz, sections 3-4 - Sing & Play Berkow. sect. 3-4 - in class: duets (sections 3-4)	- review Sing & Play Berkowitz section 4 - review singing duets section 4 - modal and atonal melodies
Jersild Progressions	C, c, G, g, A, a, F, f, D, d (without non-diatonic tones)	C, a, G, e, F, d, D, b (WITH non-diatonic tones)	B ^b , g, A, f#, E ^b , c, E, c#, A ^b , f (WITH non-diatonic tones)	B, g#, D ^b , b ^b , F#, d#, G ^b , e ^b (WITH non-diatonic tones)

This curriculum seems to encompass each part of music making, and in rather great detail, at least when it comes to the Western art music idiom. However, similarly to the theory area, the curriculum for aural learning is restricted to just that. There is no venturing into popular music, jazz, or world music. Also, Cavner and Gould speak of teaching first from a whole – focusing on making music, then breaking things down into smaller parts. “Both Kodály and Orff recognized that teachers could make the development of musicianship easy or difficult for students. It is easy when teachers focus on making music and difficult when they break music into bite-sized, supposedly simple elements” (Cavner 41). This curriculum consists of many “bite-sized” elements; there is no mention of holistic listening, and each concept is presented in isolation from its counterparts. Another example of aural learning starting from the whole can be found in the Venda tribal society, where “It is the total pattern of the music and its associated situations which are more significant than the number of tones used in songs. Children learn these songs as they learn language, as complete ideas, and not gradually by musical progression” (Blacking 94). It should be noted that in the Venda tribal society, as Blacking writes, the musical “elite” do not exist. Every member of the community leads a life in which music is woven inextricably.

Blacking, and Cavner and Gould’s statements bridge the gap between the way young children are taught and the education of college students. There are many examples of holistic thinking especially in elementary education. For instance, Zoltan Kodály, a pioneer of primary level music education, developed a teaching method along with his colleagues that is quite holistic. The tenants of this method include an elevation of teacher training, higher music literacy rates within school systems, the idea that all children have the right to musical literacy, a foundation of singing, the use of native folk songs, music of “high artistic

value,” the incorporation of movement, games, playing of musical instruments, reading and writing music, and basing the teaching progression on the child’s natural learning progression (Estrella 1). Similarly, and arguably an even more holistic teaching method, is that developed by Carl Orff – also known as the Orff-Schulwerk or Music for Children. This method stems from Orff’s belief that the most effective way of teaching music is to begin with our inherent affinities for rhythm and movement, building from what is already engrained or, as Bissell, Hall and Orford write, “leading the child by his or her intuition from primitive to more sophisticated expression through stages parallel to western music’s evolution” (1). Although it would be impractical to attempt to teach students at the university level in the same way one would teach elementary students, it seems that professors of higher education could take some valuable cues from these highly developed methods.

My experience with the TSUSM aural skills curriculum, and the compartmentalization of musical skills in general was that those students who did not have previous ear training backgrounds performed quite poorly in these courses, unfortunately at the expense of those in the class who were eager to move forward to more complex layers of listening to and recreating sound.

Applying Pink’s ideas as a Conceptual Model

Achieving the holistic approach to aural training and music theory supported by the texts of Odam, Boardman, Cavner and Gould and Blacking could be possible, with the application of Pink’s “six aptitudes” for balanced cerebral activity. Let us relate Daniel

Pink's "Six Aptitudes" to music theory and aural skills instruction in order to bring a new perspective to the matter.

Design refers to the idea of "form over function," or the beautiful trumping the utilitarian. If teachers can find a way to present the elements of music more as a palette of colors that composers blend together to create a whole picture, creating music, rather than a toolbox from which it is mechanically put together, then music theory and aural skills instruction will reflect the aesthetic quality of music, causing inspiration rather than frustration in pupils. That is to say, based on the ideas presented by Boardman, Regelski, and Odam, if we begin with the piece in its entirety and a discussion on its aesthetic qualities, then discover why the piece makes us feel the way we do, we will come to a much deeper and more meaningful understanding.

Story is about contextualization, so in applying it to music theory and aural skills, this would require teachers to place harmonies not merely "in context" surrounded by other chords of the same duration, texture and timbre as in four part chorale style, but to look at chord progressions in whole pieces of music, both from the classical, jazz and world repertoire, and from the students' personal libraries. Additionally, there is no reason students should not be gaining some historical and cultural background in their theory and aural classes. Ethnomusicologists such as John Blacking constantly emphasize the importance of context in understanding music. Knowing biographical information about the composers, the historical events of the time, and the cultural practices of the regions from which these pieces came adds a very important layer to the analysis and performance of any music. These ideas are reflected in Blackings words - "If some music can be analyzed and understood as tonal expressions of human experience in the context of different kinds of social and cultural

organization, I see no reason why all music should not be analyzed in the same way” (31). Each course should build upon the last, the content interwoven in a way that recognizes the connectivity between sub-disciplines.

Pink calls the synthesis of elements, **symphony**. Instructors can exercise this “aptitude” by bringing examples from all styles and genres of music and leading a class discussion on the similarities and differences in the theoretical make up of each. For instance, how similar is the compositional style and performance practice of the music of J. S. Bach and Charlie Parker? The concept of **symphony** requires drawing parallels in subjects that would not otherwise be linked.

In order to be effective, it is important for the professors to make attempts at relating to their students, they must be **empathetic** to their individual situations, and to make them feel welcome and comfortable enough to ask questions and participate in the class. A majority of musicians choose music as a path of study due to their passion for and enjoyment of the subject. In fact, when discussing the execution of music on our instruments, it is called “playing.” Instead of the professor always reciting examples at the piano, or presenting the class with recordings, why not get the students involved and have instrumentalists **play** or sing the examples in theory classes? In aural classes, although improvisation is listed as part of the curriculum, I have yet to see it included in the actual coursework. Students could **play** or sing an example in the intended style, then improvise a version in another style.

Lastly, these courses must have **meaning** for the students and faculty. We must come away feeling intrinsically accomplished rather than simply relieved at their completion. Students will gain a deep appreciation that comes from listening to or playing a piece of music when there is an understanding of the architecture of that music; this is arguably the

reason music theory and aural skills are such an important part of the higher level music curriculum. The professor can instill this “aptitude” through the enhanced teaching techniques described herein, and through graciously sharing his passion for the subject matter.

Historical and Cultural Context

In any discipline, practitioners must learn from their predecessors, placing everything they do in the present into historical perspective. In addition to temporal aspects, we must contextualize information our respective fields culturally. Likewise, this is true in music. Cavner and Gould echo this sentiment by stating “If music is a part of life, it should not be studied in isolation but in the context of why we value music in our culture” (42). Blacking also argues for the inseparability of music and its cultural context: “Music is a synthesis of cognitive processes which are present in culture and in the human body: the forms it takes, and the effects it has on people, are generated by the social experiences of human bodies in different cultural environments...It follows that any assessment of human musicality must account for processes that are extramusical, and that these should be included in analyses of music” (89).

Within the canon of academia, Western culture centers on a strong linear tradition of what has come to be known as “art music.”² Upon completion of the core curriculum, music students at TSUSM are expected to be familiar with certain pillars of the art music tradition. They are expected not only to identify major composers and a small amount of biographical

² “...used to describe music that is written down and that takes a more or less established form to transmit some sort of artistic expression. The term is often used in contradistinction to [folk](#) and [popular music](#), as well as some forms of liturgical music (especially plainchant) and dance music, but, particularly since the 20th century, the distinctions have become blurred.” -Jane Bellingham in [The Oxford Companion to Music](#).

information about them, they should be able to map the progression and growth of current musical styles from antiquity to the present, as well as to aurally recognize examples from the most standard catalogue of art music. In addition, they should have gained the ability to contextualize music, assessing the time period, genre, form, instrumentation, and other elements of Western art music by sound. All music students at Texas State University are required to complete one semester of a general music literature class as well as two semesters of a more focused music history class. Performance majors are also required to take one semester of world music, although Music Education majors are no longer required to take this course. These courses are those that bring elements of all our other areas of study in music together to create a clear, whole picture of music in the scholarly sense. The study of music history has the potential of being quite a cerebrally holistic endeavor, especially if approached from an ethnomusicological standpoint.

John Blacking provides a good introduction to ethnomusicology, which, most concisely can be described as the anthropology of music, when he writes, “Ethnomusicology has the power to create a revolution in the world of music and music education, if it follows the implications of its discoveries and develops a method, and not merely an area, of study. I believe that ethnomusicology should be more than a branch of orthodox musicology concerned with “exotic” or “folk” music: it could pioneer new ways of analyzing music and music history” (4). In addition, “Ethnomusicology is not only an area of study concerned with exotic music, nor a musicology of the ethnic - it is a discipline that holds out hope for a deeper understanding of all music” (31).

The emphasis ethnomusicologists place on cultural context is indispensable in the teaching of the history of art music and world music alike. Blacking also provides an example of ethnomusicological ideas in the art music tradition:

None of these musical meanings is absolute even within the same European musical tradition, in which the rules are clearly stated and the system of learning them has been similar for centuries. They depend not only on the context of the work, but also on the musical conventions of the time...the music of Bach and Handel cannot be fully understood without reference to the eighteenth century view of the world...Similarly, if northern Indian music claims to be able to bring out 'a nuance of sadness, or of love...by careful and impermanent use of intervals that correspond with these emotions' (Alain Danielou) it is because the music is heard and performed in the context of Hindu culture and of a musical system that is intricately related to it. (Blacking 68).

In the study of music history and world music, students are required to synthesize elements of narrative, sound, time, and place in order to gain a sweeping understanding of the art music tradition and its application to the present in performance and education. In the words of Boardman, "Such acquisition occurs as experiences that enable the learner to form essential concepts. For example, the *knowledge* that Haydn and Mozart lived in approximately the same time helps the learner conceptualize style; gaining the *skill* needed to play a scale helps to conceptualize melodic and harmonic qualities" (49). Considering these statements, it is not difficult to see the integral nature of historical context in performance. Again, turning to Blacking for the reinforcement of our reasons for studying music history and world music, we find the ideas presented to us by Pink reflected in a different color. "Whether the emphasis is on humanly organized sound or on soundly organized humanity, on a tonal experience related to people or a shared experience related to tones, the function of music is to reinforce, or relate people more closely to certain experiences which have come to have meaning in their social life" (Blacking 99). Further, "Authentic learning is most effective when it is contextual and multidimensional. A contextual and multidimensional

activity fits into the context of the whole purpose for a discipline- whether reading or music- and the activities center on this overall purpose” (Cavner 40).

It is vital that in addition to understanding and applying this contextual approach, educators insure that their students also gain an understanding of the reasoning for including music history and world music in the curriculum. Students who understand the purpose of their education, and view their education as a point from which to grow as individuals and as musicians, are more likely to excel. This is evidenced by the research of Stanford University professor, Carol Dweck. Through Dweck’s program, “Brainology,” she found that “students who believed that their intelligence was something that they could develop and increase—what we term a growth mindset—also held many other positive attitudes. First, believing that their ability could be increased, they valued learning as a goal, even when it involved hard work or initial errors. They also believed in the efficacy of effort—that is, they viewed effort in a positive way and felt that they had the ability, through their own efforts, to learn and master new material up to standard. When they had difficulty in a subject, they made more constructive, mastery-oriented explanations...(Dweck 1).” Therefore, it follows that students who realized the effect that historical and cultural context could have on their development as musicians, would value the subject matter more intrinsically, and thus, learn the material more deeply, and discover new ways to synthesize it with their studies in other areas.

Taking cues from the framework laid out by both Blacking and Pink, music historians and educators can avoid the pitfalls associated with a purely fact and language driven methodology in the presentation and assessment of music history. It would seem that Pink’s six “aptitudes” are more obviously applicable to Music History and World Music than theory

and aural skills, and since music history already stimulates the right side of the brain in its innate contextual nature, many of these ideas are already in place in the educational system. For instance, the accompanying materials with the required text for music history consist of a DVD, CD-ROM with practice quizzes, and a website with a wealth of supplementary material - all of which could be presented in a dry, non-dynamic manner, but instead they incorporate the element of **design** in order to make the information more palatable for students.

There are many ways of presenting historical information, but the most effective seems to be in the **story** form. Pink supports this claim when he speaks of “our difficulty retrieving that isolated factoid,” and that our propensity toward remembering stories is “how most minds work.” He continues to write, “Stories are easier to remember – because in many ways, stories are *how* we remember” (101). History is, in effect, a story of our past, therefore it must be taught with this statement in mind.

That contextual element to history of which Blacking speaks is reemphasized in the concept of **symphony**. In fact, Pink suggests to his readers that “listening to symphonies, not surprisingly, is an excellent way to develop your powers of symphony,” then he proceeds to list five classic symphonies for his readers to try, and further makes the point that “particular recordings – with different conductors and orchestras – will vary in style, interpretation, and sound” (149).

In order for history and world music lessons to resonate with students, professors will have to develop **empathy** for the situations of their students. To quote an extremely prominent and influential figure in current popular culture, “Leadership is about empathy. It is about having the ability to relate and to connect with people for the purpose of inspiring

and empowering their lives” (Oprah Winfrey quoted in Pink, 160). If professors constantly take their students’ perspectives into account, they will automatically be building upon what they already know, in effect educating them rather than teaching them, and in doing so will provide more **meaningful** instruction.

Finally, a lighthearted, **playful** approach to the instruction of subjects that are in danger of becoming dusty museum pieces will further engage students in their studies. Pointing out the humor in historical music is also essential in its contextualization. For instance, few laypeople realize the great humor in the music of Haydn. Consider his Symphony No. 94, nicknamed the “Surprise Symphony,” or his String Quartet Op. 33 No. 2 - “The Joke,” as more obvious examples. Laughter in the classroom keeps students engaged, stimulates both sides of the brain, and greatly raises the odds of information becoming ingrained in the memory.

Performance

Finally, let us discuss the absolute culmination of all elements of music, and the most right brained task of all musical skills - performance. When stripped of its western conventions, performance can be defined in more simple terms. For example, as Blacking writes, “if we take a world view of music, and if we consider social situations in musical traditions that have no notation, it is clear that the creation and performance of most music is generated first and foremost by the human capacity to discover patterns of sound and to identify them on subsequent occasions” (9). In addition, in the same way our experiences in life shape our actions, our musical experiences shape our performance. The teaching of performance becomes especially difficult in the traditional western sense because it is quite subjective and difficult to assess beyond the sheer technical skill in playing an instrument. It

would seem that performance would be the end where theory, aural skills, and historical and cultural context comprise the means; however, that evaluation does not take into account a further dimension of the musical experience, which lies in the communication of an idea or emotion between performer and listener. If educators attempt to take a linear, left brain approach to the teaching of performance, their students will not gain the level of expression required to communicate meaningfully with their audience. The communication of which I speak is that of abstract ideas that cannot be expressed in language.

A popular instrumental teaching method pioneered by Shinichi Suzuki in the mid 20th century, upholds the philosophy that learning music correlates to learning language, and through this method many students throughout the world have become highly proficient players at very young ages. Students are immersed in listening to their pieces, and learn to play them by rote, while written notation is introduced “once basic playing skills are well established” (Suzuki: *The Mother Tongue Approach*). In some ways, this approach is highly effective and “whole brain” oriented – emphasizing sound over notation, teaching the children different variations on the same melody, and taking the open approach to teaching that any child can learn music because any child can learn language (since learning to play music takes a similar skill set to learning to use a language.) While these important aspects are in place, students learning entirely by rote lack the opportunity to create, and to make their own decisions with their music. Students must be presented with many approaches to the same piece in order to assimilate their own interpretation. In addition to rote learning, instrumental or voice lessons should include improvisation, study of other art forms and their relation to music, and contextual placement of the material. Odam supports these claims in saying, “when we treat music like a language, we can become ensnared in linear and logical

thinking processes appropriate to the understanding of language but antipathetic to the achievement of musical experience. By drawing upon both metaphoric and logical thought processes through action, music provides an essential activity for the development of the brain. Language functions differently from music. Teachers need to understand this and to balance approaches to embodied meaning and designative meaning to help to provide access to musical meaning and experience” (Odam 7). Odam goes on to advise educators on ways they can carry out this approach.

Musical experience requires focused attention from those encountering it. Teachers must provide the focus and act as knowledgeable guides. In providing such a focus, they should consider how many other forms of communication can be used that are not verbal. They should consider also how much of a lesson can be taught without actually saying anything or using written language. How much they could use shape, line, texture and colour, and how much they can draw parallels with other arts and help to increase students’ sensitivity to them should be matters of concern. They should also think whether they could play or sing a lesson; be concerned about how visually stimulating is the environment provided for the students and how this might enhance musical learning, or consider how often it should change (8).

One important element of musical self-discovery, which is sorely lacking in our traditional music education system, is improvisation, the study of which has been advocated by such education scholars as Odam, who writes: “Western education practices tend to rely far more on the storage of memories in the written word or graphic symbol, ignoring the long-term memory, and this can mean that without these cues, we are powerless to act. Far too many musicians in our society fall into this category and are unable to fulfill musical tasks when they are divorced from notation, either re-creating the music of others or improvising” (14). It is not necessary for improvisation to remain within the confines of the jazz idiom. Students could benefit greatly from “divorcing” themselves from their sheet music and simply playing their instruments or singing without particular purpose, or with the purpose of finding their own voice and expression. This sort of practice can be extremely

liberating, and will no doubt feed into students' performances when they are reunited with the score.

Benjamin Zander, teacher, speaker, and conductor of the Boston Philharmonic Symphony Orchestra gave a talk in February 2008 at the Technology Entertainment and Design (TED) conference titled "Classical Music With Shining Eyes" in which he teaches an audience of 1,600 people from all disciplines how to listen and appreciate classical music. He claims that "classical music is for everybody," asks "how would you walk, how would you talk, how would you *be* if you thought 'everybody loves classical music, they just haven't found out about it yet.'" He goes on to say that when he realized that his job "was to awaken possibility in other people," it transformed his musical life. Zander says that the way to decipher if you are doing your job is if your students', colleagues', or your children's "eyes are shining." To Zander, "It's not about wealth and fame, it's about how many shining eyes I have around me." It seems that "shining eyes" could be equated to "whole-brain" function. Indeed, in order to inspire "shining eyes," we must enliven our performances with the whole-brain "aptitudes" of **design, story, symphony, empathy, play, and meaning.**

Those artistic elements to which Odam refers - line, color and texture - can obviously be interpreted musically and would seem to fall under the category of **design**. Drawing comparisons with other art forms aids the student in creating their own interpretation of their music – for instance, prompting them to imagine colors or images to correlate with certain passages open doors to new musical perspectives, and the use of metaphor stimulates the whole brain. All music is narrative whether it is programmatic or not, because our brains are constantly relating abstract concepts to those we can comprehend through the use of metaphor, or **story**. One way to ensure that we are thinking holistically and applying the

element of **story** is through the use of metaphor, as argued by Odam: “If we teach through metaphor we engage the right brain, since the left brain does not understand metaphor” (Odam 19). One could argue that in order to perform, the “aptitude” of **symphony** is automatically engaged, because a synthesis of elements is required. However, taking a more holistic method to preparing music for performance and approaching the music from all angles will surely aid in leaving an audience with “shining eyes.” This “aptitude” can also be exercised through a synthesis of art forms. For example, Austin composer, P. Kellach Waddle presents the series’ “Synthesis of Music and Literature,” and “Music and a Movie” which incorporate lectures on literature given in conjunction with original compositions inspired by said literature, and movie screenings with original music composed for the occasion, and other music chosen to compliment the theme.

As performers we must be aware of our audience, and tailor our performance to the individual situation. If we are to communicate with our audience, we must be **empathetic** to their musical needs. It seems to go without saying that performers who show their enjoyment while **playing** transfer that enjoyment to those listening. An interesting study conducted by Ulman Lindenberger, Viktor Müller, and Shu-Chen Li from the Max Planck Institute for Human Development in Berlin along with Walter Gruber from the University of Salzburg found that musicians’ brainwaves somehow become synced during ensemble playing. The researchers discovered that “the similarities among the brainwaves’ phase, both within and between the brains of the musicians, increased significantly: first when listening to a metronome beat in preparation; and secondly as they began to play together” (BMC Neuroscience 1). It follows that this indelible link between ensemble players contributes greatly to enjoyment in playing, and it would be interesting to learn how audience members’

brains respond in conjunction with the musicians. Finally, as musicians we must remember why we do what we do, what our music **means** to us, and through that awareness, convey that **meaning** to our audience. With regard to **meaning** in performance, Liora Bresler, a professor of curriculum and instruction in the University of Illinois College of Education has this to say: "A musician would approach a piece of music by looking for meaning, and then how they would interpret it and perform it," she said. "All throughout that process, they pay much more attention and are much more focused and organized, because they know they have an audience to perform for" ("Musical Sensibility..." 1). Bresler goes on to correlate this thinking with teaching methodology when she asserts, "When you teach, you have a lesson plan, but you're not bound to follow it. You play, follow up, improvise and adapt, as the situation dictates. It's intellectual engagement, and you want to be engaging. So having a real, live audience makes a difference" ("Musical Sensibility..." 1). These statements provide connective tissue of sorts for each of the musical elements discussed.

Closing Remarks:

In the words of Regelski, "Education is what remains after everything you have learned has been forgotten. Education is not the verbal-analytic information and skills of so much of today's schooling. It is the lasting attitudes, values, habits, and tendencies made possible by the full cooperation of all mental faculties" (34). In focusing on applying these holistic skills to students in higher education, we are training the educators of the next generation to instill these skills in their students who may or may not pursue music professionally, but whose lives will be enriched in ways that will influence the manner in which they live.

Music is the only effective primer for the developing mind and body, but it is an exacting and progressive blend of scientific, artistic, and physical disciplines that can be undertaken and enjoyed at an early age, and it is one whose long range value will not depend on the ultimate pursuit of a musical career.

-Wilson (1985) (Quoted in Odam 17)

The implications of this way of thinking are much more broad than we can imagine.

“...viewing music as an integral part of life will radically change the ways we teach and learn music.” (Cavner 42). Cavner and Gould also present David Elliott’s apt suggestions that the ‘nature of music education depends on the nature of music’ and that the ‘significance of music education depends on the significance of music in human life’” (42). In keeping with the idea that context is everything, we must view education as a living movement, which is constantly evolving. For this reason, we must be willing to reflect on the status quo, and make changes where it is necessary, which includes “the process of examining effectiveness, critiquing and making revisions, and collaborating with colleagues and students to continually improve instruction. Reflection is a systematic exploration of possibilities that involves initiative, creativity, and the forging of new ideas or questions” (Cavner 43).

After evaluating the status of higher music education, let us revisit our original line of inquiry. If the Texas State University School of Music is a microcosm of the greater higher educational system, it would seem that both sides of the brain are not being addressed in a balanced way due to a narrowly focused curriculum and strong need for concrete, extrinsic assessment. However, through the application of right brain-building “aptitudes” and progressive perspectives in the field, it is absolutely possible to find a holistic approach to music education and performance. Boardman presents a poignant summation of education in her statement that “Learning is the movement *from* a known *through* the unknown *to* a new known” (50), which leads me to believe that we, as music educators will find a way to

traverse the unknown to a new known in which we use our musical skills to make us not only well-rounded musicians, but well-rounded, forward looking human beings.

Addendum – The Inner Symphony in Recital: A Performance for the Whole Mind

In writing and researching this thesis, it seemed fitting to include some element other than written language, since the assertions herein advocate for a more holistic approach to music education and performance. Therefore, the included performance serves to support this thesis by incorporating Dan Pink’s “aptitudes,” especially that of **story, symphony, play** and **meaning** in one way or another, and attempting to embody these more holistic principles. The repertoire included Astor Piazzolla’s *History of Tango* for flute and Guitar with Tango dancers, *When Will You Pass This Way Again?* Written and performed by my father, Rick Steinburg - guitar and voice, with flute and vocal accompaniment provided by myself, *Viinijarvi Valssi* or, *Wine Lake Waltz* written and performed by Erik Hokkanen - fiddle, with myself - flute and Ryan Gould, my husband - string bass and Gypsy Scarf Dance, *Sugar*, a traditional jazz standard with flute, fiddle, string bass, guitar, voice, and Lindy Hop dancers, and finally *Romanian Folk Dances* by Bela Bartok, arranged for flute and guitar.

Each one of these pieces tells a different **story**. Piazzolla’s *History of Tango* was composed as a musical narrative of the temporal development of the Tango as a dance and a musical form in its own right. *When Will You Pass This Way Again?* recounts a poignant story about blues musician, “Mississippi” John Hurt, while *Viinijarvi Valssi* serves as an homage to Hokkanen’s grandmother, and his ancestral land of Finland. *Sugar* is a whimsical love song, and the *Romanian Folk Dances* are settings of traditional folk dances recorded by Bela Bartok in his Ethnomusicological field work, the flavor of which wonderfully capture

the aesthetic of Eastern Europe with a modern twist. The performance made attempts at incorporating the element of **symphony** through bringing together many genres and incorporating dance. Additionally, in preparing for the recital, the pieces were first learned by ear, and for those that were more complex the sheet music was used more as a signpost than the entire vehicle. Through the endearing personas of the dancers, and the lighthearted approach to the music the element of **play** was integrated. When performing music for dancers, there is an indescribable connection that forms, heightening the excitement in each party. The level of communication between players, dancers, and audience becomes instantly more complex, and yet effortless – playful, even. Finally, having close friends and family participate in the recital added a great depth of **meaning** to the performance. My father was the first driving force behind my musical career, and to have the opportunity to share the stage with him in this setting was an emotional and meaningful experience.

Overall, the experience involved no great innovation or earth-shattering discoveries, but approaching performance in this way has led me to the conclusion that musical performance has an infinite array of layers, and that applying holistic thinking enriches the experience of the performers and listeners alike.

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