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HOLISTIC MUSICAL THINKING: A PEDAGOGICAL MODEL FOR HANDS-ON AND HEART-FELT MUSICAL ENGAGEMENT

Routledge New Directions in Music
Education Series

Daniel C. Johnson



Holistic Musical Thinking

Holistic Musical Thinking presents a comprehensive view of how people engage with music from a hands-on and heart-felt perspective. This approach embraces the teaching and learning processes as a multi-dimensional amalgamation of knowing, doing, and feeling through musical experiences. The result is a five-dimensional model that synthesizes cognitive, affective, and psychomotor learning with curricular integration.

With pedagogical applications, *Holistic Musical Thinking* offers a multi-faceted perspective that benefits both music teachers and their students. This innovative approach uses established research for a new model of musical thinking and taxonomy of musical engagement. Complete with classroom vignettes and pedagogical strategies, this book reframes musical thinking as a new direction in music education. Written for music teachers, teacher-educators, and their students, this book provides practical applications of the multi-dimensional Model of Holistic Musical Thinking for K-12 music education, and beyond.

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A Pedagogical Model for Hands-On and Heart-Felt Musical Engagement
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Series Foreword

The *Routledge New Directions in Music Education Series* consists of concise monographs that attempt to bring more of the wide world of music, education, and society – and all of the conceptualizations and pragmatic implications that come with that world – into the discourse in music education. It is about discovering and uncovering big ideas for the profession, criticizing our long-held assumptions, suggesting new courses of action, and putting ideas into motion for the prosperity of future generations of music makers, teachers of music, researchers, scholars, and society.

Clint Randles, Series Editor

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More than a decade in the making, this book does not present new empirical or qualitative data. Instead, it is a synthesis of ideas from current and previous research that I have assembled into a new model that offers a multi-faceted perspective on musical thinking, specifically illuminating musical engagement and pedagogy. It provides research-based rationale for and application of Holistic Musical Thinking with implications for teaching and learning. My ultimate goal for the model and its application is to empower music teachers, teacher-educators, and their students to embrace and celebrate the many ways music is a complex and many-splendored experience.

1 Exploring Musical Thinking

Setting the Stage for Musical Thinking

Music, like love, is a many-splendored thing. This realization echoes the song lyrics from the 1955 movie of the same title and is the inspiration for this book. Informed by more than 30 years of experience as a music teacher and teacher-educator, Holistic Musical Thinking articulates observations I have made about the complexity of music teaching and learning. Convincing performances require a three-fold combination: understanding the musical background and conveying the emotional expression, as well as executing skillful technique. It is this three-fold knowing, feeling, and doing or holistic approach to music education that leads us to hands-on and heart-felt musical engagement. In noticing the intersection of multiple ways of knowing, I am fond of telling students, “We work in the *music* not the *technique* department!” Said another way, technique is a necessary but insufficient skill to deliver successful musical performances. The following chapters explain issues relevant to music teachers, teacher-educators, and their students so that they can thoughtfully explore the complexity of teaching and making music.

Recent and emergent research as well as historical sources provide both a firm foundation, rooted in tradition, as well as forward-thinking ideas from current scholars in the field. References from music and educational psychology summarize some of the main approaches in the field and their influence on contemporary music education. Although cognitive psychology has been a major focus in music education during the first two decades of the 21st century, this book goes further to address affective and psychomotor learning as key facets of music-making. It also reinforces emergent trends toward a broader,

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holistic view of music education (e.g., Aróstegui et al., *in press*), and also provides a more specific focus on musical thinking in teaching and learning contexts.

Regardless of genre or style, people enjoy wonderful musical performances as moving, emotional, and memorable experiences. Our heads bob to the beat of rhythmic drumming, we sing along to soulful melodies, and we dance alone or with our friends as the music literally moves us (Smith, 2022). While music is remarkably entertaining and often impressive in this context, audiences often overlook the related thoughtful nature of music. Exploring how composers and arrangers “put it all together” requires a behind-the-scenes look at the creative processes involved. Therefore, we should consider music as a multi-modal and multi-dimensional experience – one which simultaneously engages us with the head, hands, and heart.

The central theme of this book, is a synthesis of well-established ideas into a new model of musical thinking. Like any model, it is a way of explaining, and understanding our experience. In this case, it embraces the multi-faced and multi-dimensional experience of music that touches us emotionally, moves us physically, and inspires our ideas.

By a holistic understanding of musical thinking, we mean a comprehensive view of the interconnected parts as a whole and complete experience (Merriam-Webster, 2024). As explored in this book, we can only truly understand and appreciate the whole musical experience by embracing its component processes – thoughtful, practical or praxial, and feelingful. Applying the axiom that “the whole is greater than the sum of its parts,” we can appreciate musical experiences more fully and more completely when we examine the intellectual, physical, and emotional aspects of music. Similarly, one of the most meaningful aspects of music, its expressive qualities, are what scholar and music educator Steve Larson described as an “emergent property” which is a holistic attribute, greater than the components that interact to comprise it (2012, p. 18). To represent this approach, this book presents a five-dimensional, Model for Holistic Musical Thinking as the combination of cognitive, affective, and psychomotor, dimensions along with multipurpose ways to integrate other disciplines authentically and to engage learners creatively through guided musical experiences.

This book is for musicians, amateur and professional alike. Exploring musical thinking in a holistic way benefits professional musicians and their students as well as student-musicians and their teachers. Coming to appreciate music in a holistic way honors the

thoughtful, practical, and ultimately feelingful work that combines to create musical experiences. Positive affective or emotional responses to music are the main attraction or source of enjoyment for listeners or performers alike (Juslin, 2016). Physical responses to music happen automatically (e.g., foot tapping and head nodding) and these actions relate to emotional reactions (Hodges, 2016).

By reframing music teaching and learning in terms that reflect the multi-dimensional and inherently meaningful nature of music, this approach represents a new direction in music education. It describes the creative and responsive processes that occur preceding, during, and following musical experiences. The resultant Model for Holistic Musical Thinking offers teachers and students a conceptual framework with practical applications. As discussed in Chapters 2 and 3, this text presents as an examination of established and emergent research on cognitive, affective, and psychomotor learning in combination with learning tools for interdisciplinary arts education and student engagement. By embracing musical thinking as an amalgamation of knowing, doing, and feeling, this Model for Holistic Musical Thinking articulates and enhances meaningful, multi-modal musical experiences with practical suggestions for memorable and effective music teaching and learning. Combining theory and practice of music education in this way extends established educational concepts, while also providing practical examples of the model in action in Chapter 4.

History and Theory of Musical Thinking

We begin our exploration of Holistic Musical Thinking with an orientation to learning and teaching music. These are deceptively complicated enterprises. They comprise a three-fold, thoughtful, practical, and feelingful experience. On the surface, showing someone how to play or sing well is relatively simple. This is the main and most obvious part of all music teaching. Observing, imitating, and practicing musical skills are direct ways to replicate the teacher's performance. Below the surface, however, understanding, analyzing, and reflecting on musical experiences requires critical and creative thinking. On this deeper and more thoughtful level, engaging students in the process of transmission or sharing musical knowledge and skills is an age-old and continuing challenge for music educators. The practice of actually making music is central to its musical essence. Making and sharing music is key to both preserving musical traditions and to

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innovating new musical trajectories. Finally, communicating the story or message of any musical composition is perhaps the most long-lasting and touching part of any musical experience.

Created in 1965 by Richard Thomas, Comprehensive Musicianship through Performance (CMP) was an early example of holistic music teaching and learning. CMP offered a model for teaching performing with understanding in ensemble settings (Sindberg, 2009). As Thomas explained, learning music should focus on personal connections to music, thereby promoting self-expression as students discover musical meaning through performance (1970). This curricular reform showed the links between performance and making personal meaning by understanding musical context; this holistic approach clearly demonstrates cognitive, affective, and psychomotor learning. Perhaps the most important outcome of CMP was the term “comprehensive musicianship” which has entered the lexicon of music education in the decades that followed (Sindberg, 2009). As we will explore, a parallel Model for Holistic Musical Thinking expands on the premise articulated in CMP to broaden the student experience of music.

Definitions

Musical Thinking describes the range of cognitive, affective, and psychomotor processes that occur preceding, during, and following musical experiences. In more practical terms, we translate the musical ideas originating in our heads as we manipulate instruments with our hands or voices to create heart-felt musical experiences. For performers and listeners alike, these processes allow for meaningful, multi-modal engagement with musical experiences. While music teachers regularly explain musical concepts and ideas cognitively, the presence of music itself occupies another realm – that of the immediate experience. In that visceral and all-encompassing sense, “the exceptional power of music may be related to its ability to stimulate us aurally, visually, intellectually, emotionally, and physically, simultaneously” (Hallam et al., 2016, p. 905). Performing musicians, for example, regularly describe the experience of flow or making music in the moment (Nakamura & Csikszentmihalyi, 2020). This focused and immediate experience frequently combines thinking, doing, and feeling at various levels for musicking or live music-making (Small, 1998). As a counterpart, observers (other than those performing) describe music after-the-fact, frequently to understand music in terms

of other contexts. Such descriptions integrate the essence or nature of musical experiences with other modes of understanding and expression. The Model for Holistic Musical Thinking presented in later chapters describes both the ways musicians engage with making music in the moment, and their extra-musical connections to other art forms and disciplines. This model encompasses how people intuitively make sense of musical experiences, whether as performers or observers, in cognitive, affective, and psychomotor terms.

Music is not a thing but an activity, something people do. Therefore, Christopher Small coined the term “musicking” in 1998 to highlight the importance of actively making and experiencing music in order to experience the power and relevance of musical engagement. Learning is a holistic process, experienced through authentic and multi-step tasks (Wiggins, 2015). Because both learning and music are holistic, best understood and experienced through multiple lenses or perspectives, an interpretation of musical thinking as holistic is a more accurate and authentic representation of this phenomenon.

Knowing About vs. Experiencing Music

Knowing *about* music and knowing music *through* musical experiences are distinctly different. Scholars such as Steve Larson have described this difference as *thinking in* and *thinking about* music with the main difference being present to the sound of music versus its abstractions (2012). In Western cultural traditions, knowledge about music typically comes in two forms – music theory and music history. Music theorists typically treat music as a puzzle, to be analyzed and dissected using musical elements. Music historians often treat music as examples of grand works, to be celebrated as marvelous achievements. Although explanations of music and musical events contribute to knowing about the historical and theoretical contexts, their importance is based on the experience of music itself. Both theoreticians and historians objectify music, treating it as something “out there” instead of and experience “in here” (Cook, 2021). In contrast, a more authentic approach to music education humanizes music as an embodied activity instead of a tangible product (Hodes, 2016; Lux et al., 2021; Smith, 2022).

With respect to music, learning about the discipline is not the same learning as doing discipline-specific activities. The difference lies in the level of authenticity and engagement. With active, engaged learning,

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students practice discipline-specific skills and develop corresponding tools to experience the work, in this case to make music (Ritchhart et al., 2011). By making music or musicking in this way (Small, 1998), learners engage in actual musical experiences, instead of reflecting on its related history, theory, or politics. A new direction along these lines incorporates both reflective and analytical thinking about the musical experience with the actual experience itself. Engagement with music in these multiple domains allows learners to uncover the most salient and personal musical meanings. By doing so, learners engage with the music learning experience to move toward a personally meaningful and enduring relationship with it (Barrett, 2023; Barrett et al., 1997).

Pythagoras and other ancient Greeks articulated much of what we now know about the physical properties of sound and their relationships to the natural world. While our understanding of the physical properties of sound and silence are well-established, their meanings are not. How we make meaning from experiencing those acoustical phenomena is an ever-evolving pursuit. People interpret music based on their prior experiences. Therefore, teachers can expand learners' musical horizons and possibilities with exposure to novel musical traditions. They can also introduce students to cultures throughout the world because music is a ubiquitous component, found in every human society (Blacking, 1973; Mannes, 2009).

Historical Background

In the field of music education, musical thinking has a relatively brief but diverse history. In the 1960s, music educators focused on knowledge about and behaviors in musical contexts, with the intention of preparing students to become musically independent. By the 1980s, however, researchers and teachers found that students completed K-12 music education programs no better prepared to interact with music thoughtfully and independently than in the previous decades. As Eunice Boardman wrote in *Dimensions of Musical Thinking* (1989), the missing ingredient was students' ability to apply musical knowledge and skills to novel and unfamiliar musical situations.

In the decades that followed, researchers and pedagogues have used a range of educational psychology and general education research to develop approaches in an effort to provide this missing link. Some researchers have studied musical thinking in terms of composition and creative products (e.g., Hickey, 1997; Younker, 2000)

while others have studied ways composers invent notation to encode their compositions (Barrett, 1997) and cognition in terms of neural networks (Fiske, 2004). Still others have framed musical thinking in terms of creative problem solving and cooperative learning (Wiggins, 2015). While these and other perspectives on musical thinking provided valuable insights into the cognitive and social aspects of musical experiences, they have not offered a comprehensive view of applied and affective modes of experiencing music. In contrast, a Model for Holistic Musical Thinking more completely embraces a wider range of multi-faceted, engaging, and meaningful music teaching and learning experiences.

Schools of Music

In contemporary pedagogy, the notion of *thinking* itself often conjures up images of traditional education and schools. While these institutions have an important role to play in establishing standards and organizing curricula, they do not circumscribe the extent of musical experiences. In other words, the version of music education offered by schools does not fully embrace the full range of musical experiences. Schools, and in particular American public schools, intend to benefit students and society at large by imparting musical knowledge and skills. Their purview, however, is not the limit of musical thinking. Instead, how people engage with music (each at their own level) is much broader and more authentic. Beyond concert halls and auditoria, the places and spaces for music education also include homes, churches, synagogues, garages, campfires, street-corners, and any number of other non-school, social gathering places.

Traditionally, music teachers focus on transmitting or passing down musical knowledge and skills to their students. Contemporary iterations of these skills include ear training, dictation, theoretical analysis, and music literacy. This transmission of skills constitutes training or drill and skill practice. With names such as Juilliard, Curtis, and Eastman, conservatories shape students for their future professional careers using an apprentice-master relationship (Kratus, 2007). This conservatory or apprenticeship model is common to both Western and, in a less formal sense, to non-Western cultures. In a perhaps dated view of this phenomenon, students are selected at a very young age and groomed for future training under the tutelage of masters who pass down centuries of knowledge and skills. In contemporary

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culture, however, new versions of this paradigm still persist (Kaschub & Smith, 2014). Elite institutions audition the most promising and accomplished students for professional training and specific career paths. While these world-class conservatories and universities promote high achievements for the selected few students, they also promote and perpetuate an exclusive view of musical participation. This paradigm applies to situations that highlight the talented few in not only classical but also popular musical genres. For example, contemporary television shows such as “American Idol” perpetuate the attitude that some people are more talented than others. The effect being to silence or subjugate others into quiet admiration of the idol’s talent. The masses are idle while the talented are idolized (Johnson, 2013).

A contrasting view, less prevalent in Western societies and more common in African and other cultures, is that music is a natural and unrehearsed part of life. In this view, music is thoroughly and organically integrated into a range of other experiences. Music belongs to everyone because it is part of the universal human experience, as the cultural anthropologist John Blacking wrote in his seminal text *How Musical is Man?*, music is a universal feature of human cultures and societies worldwide (1973). This music-for-all paradigm honors all listeners’ potential for musical thought. As Dewey wrote (1934), art is part of life and plays an integral role in a range of life experiences. He also advocated for play and discovery as natural means to developing understanding and personal growth.

A New Model

It is important to be clear about what the main educational aims are in music education. Some goals include developing musical independence while others emphasize performance skills and creative capacities. What kinds of related thinking are most musical, and how can teachers foster those thinking skills? Typically, *thinking* is termed a cognitive skill but thinking in fact closely relates to other psychological and physiological dimensions such as the affective and psychomotor, managing attitudes and motor skills. Successful musicians use all these together, combining them in ways to understand the composer’s intent, then express those emotions through practiced performance. As a non-localized mental activity, music excites multiple regions of the brain, reaching well beyond the auditory cortex

(Hodges & Grun, 2018). Music is one experience that reaches multiple centers in the brain simultaneously. As the conductor George Szell said, “Music is indivisible. The dualism of feeling and thinking must be resolved to a state of unity in which one thinks with the heart and feels with the brain” (*Time Magazine*, February 22, 1963) (Letts, 2018, p. 287). For our purposes, we therefore define *thinking* broadly and holistically. The quality and category of thinking depends on both context and purpose, because it directly depends on the subject matter (Ritchhart et al., 2011). As such Holistic Musical Thinking provides musicians and educators with ways to understand musical ideas, make musical meaning, and feel their emotional effects simultaneously.

The model presented in this book provides ways to conceptualize and structure musical activities in terms of the many ways people experience music and to integrate those experiences with extra-musical connections. It offers a structured approach to musical thinking that parallels Copland’s *What to Listen for in Music* (1963). In this often-cited text, he articulates three planes of music listening: the sensuous, the expressive, and the sheer musical. He organizes these planes in a hierarchy, from least to most sophisticated. While Copland’s approach draws on years of experience as a composer, performer, and teacher, his focus is also largely cognitive – with the aim of facilitating more intelligent music listening. Comparatively, this holistic interpretation includes the cognitive aspects, while expanding to embrace the affective and psychomotor realms of experiencing music. This model values all three modes of musical experience equally – so that feeling and making music receive as much attention as thinking in and about music. The result is a more complete perspective on music as a universal human experience.

Music educators need a Model for Holistic Musical Thinking with applications to teaching and learning in order to articulate and scaffold related musical experiences in terms of the three traditional learning dimensions (i.e., cognitive, affective, and psychomotor). This is an important first step, “...to make the various forms, dimensions, and processes of thinking visible to ourselves” (Ritchhart et al., 2011, p. 5). The two teaching dimensions that complete the Model for Holistic Musical Thinking are curricular integration and musical engagement. Musical integration broadens and connects musical understanding to other subject areas. While forward-thinking musicians and teachers have at times recognized these important interdisciplinary

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connections, their work has not yet resulted in a cohesive taxonomy of musical engagement. This book presents such a model with the intention of exploring musical experiences through multiple dimensions from teaching and learning perspectives while also recognizing the transferrable thinking skills reaching across traditional disciplinary boundaries.

Thinking and Music

The term *thinking* implies cognition and an intellectual understanding of events or experiences. In this domain, the most important aspect of musical thinking is critical thinking. As a key 21st century skill, critical thinking is key to analyzing, synthesizing, and understanding musical elements (Trilling & Fadel, 2009). It also occupies one of the highest levels in Bloom's revised cognitive taxonomy (Anderson et al., 2001). An awareness of one's own thinking, or metacognition, is a related and essential first step to elevating the quality and efficacy of any thinking process. In musical terms, metacognition is a key factor in students' understanding their own musical potential and seeing themselves as creative musicians (Pogonowski, 1989).

Critical thinking in musical contexts enhances the definition of musical thinking. As advocated by Webster and Richardson, "music teachers must encourage children to think more deeply and more imaginatively about music and engage students...if real music learning is to occur" (1993, p. 7). Musical thinking, necessary for students to achieve musical independence (Boardman, 1989), is related to critical thought processes yet distinct from other forms of cognition. Webster and Richardson also suggested that musical thinking includes, "perceiving, representing, storing, and mentally manipulating musical sounds...sharing aspects of these musical sound structures with others in some form of product...and linking these musical sound structures with affect to achieve a deeper sense of personal meaning" (p. 8). Curriculum development in music education should therefore promote significant and meaningful music learning (Campbell & Scott-Kassner, 2019) including thoughts, ideas, and open-ended responses as well as vocabulary and activities. By augmenting students' awareness of music as a thoughtful experience, music educators can engage students more effectively, encourage them to think more musically, and inspire them to be more musically independent. All of these outcomes point toward

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