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An investigation of the initial stages of preparatory audiation

Hicks, Wendy K., Ph.D.

Temple University, 1993

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AN INVESTIGATION OF THE INITIAL STAGES  
OF PREPARATORY AUDIATION

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Submitted to  
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in Partial Fulfillment  
of the Requirements for the Degree  
DOCTOR OF PHILOSOPHY

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by  
Wendy K. Hicks  
January, 1993

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ABSTRACT

AN INVESTIGATION OF THE INITIAL STAGES  
OF PREPARATORY AUDIATION

by Wendy K. Hicks

Doctor of Philosophy

Temple University, 1993

Major Advisor: Dr. Edwin E. Gordon

The purpose of this exploratory research was to provide a record of the responses made by young children to music stimuli during acculturation so that the practical application of the music learning theory for newborn and young children may be enhanced and specific findings may be studied further. While young children were being exposed to a variety of tonalities and meters over the period of one academic year, comparisons were made of 1) their responses to a familiar song, sung to each child individually, without text, at specific intervals, 2) their responses to four unfamiliar songs, sung to each child individually, without text, at specific intervals, 3) the familiar-song responses elicited in procedure 1 and the unfamiliar-song responses elicited in procedure 2, and 4) the familiar-song responses and the unfamiliar-song responses arranged to neutralize the variables of order (familiar/unfamiliar) and time of response (beginning of class/end of class). Eight of twenty-two children, enrolled in a private music school participated in the study. Intact classes were randomly assigned an instructional music content series. Each class received

twenty thirty-minute music lessons of chanting, singing, and movement activities without texts. During the fifth, tenth, fifteenth, and twentieth lessons, videotaped recordings were made of each child's responses to a familiar song and an unfamiliar song without text. Three observers independently viewed the videotapes and made written recordings of each child's responses. Those responses were categorized as looking responses, non-pulsating responses, pulsating responses, miscellaneous responses, vocal responses, and responses of anticipation. The percentages of agreement among the observers for those responses ranged from 0% - 100%. The majority of responses made by young children were looking responses. Many non-pulsating responses, pulsating responses, miscellaneous responses, and responses of anticipation were also recorded. Several conclusions may be made as a result of this study. First, as they are continuously acculturated to music, some young children anticipate music and often physically and independently respond to music during silence. Second, some young children who are exposed to songs without texts performed by adults who accompany themselves with movement, respond to that stimuli without verbally or nonverbally being asked to respond or told to respond. Third, the movement responses made by young children to music are developmental and are at least dependent upon the fluctuation of physical and audiation maturation. Moreover, it may be expected that young children begin to make purposeful movement responses to music before they begin to make purposeful vocal responses to music. Fourth, young children who are acculturated to a variety of tonalities and meters can profit from those experiences.

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## CHAPTER 1

### INTRODUCTION

#### Introduction

Music aptitude, music understanding, music achievement, and music appreciation are each dependent upon audiation, one's ability to hear and comprehend music for which the sound is not physically present.<sup>1</sup> According to Edwin E. Gordon, before one actually begins to audiate, he proceeds through preparatory stages of audiation.<sup>2</sup> A child may or may not acquire the ability to audiate before his music aptitude<sup>3</sup> stabilizes at age nine. If he begins to audiate before his music aptitude stabilizes, he increases the opportunities for music enjoyment through audiation throughout his life.<sup>4</sup> Consequently, an understanding of the stages of preparatory audiation is necessary for optimal music education. There is little objective information, however, about how a child proceeds through the stages of preparatory audiation.

---

<sup>1</sup>Edwin E. Gordon, *Learning Sequences in Music: Skill, Content, and Patterns* (Chicago: G.I.A. Publications, Inc., 1988), 7.

<sup>2</sup>Edwin E. Gordon, *A Music Learning Theory for Newborn and Young Children* (Chicago: G.I.A. Publications, Inc., 1990), 29-30.

<sup>3</sup>Gordon provides a complete description of developmental music aptitude and stabilized music aptitude in *The Nature, Description, Measurement, and Evaluation of Music Aptitudes* (Chicago: G.I.A. Publications, Inc., 1987).

<sup>4</sup>Gordon, *Learning Sequences in Music*, 3-4.

A child gains levels of fluency<sup>5</sup> within music syntax by developing an understanding of sound that is organized and structured by some or all of the following: pitch, tonality, duration, meter, tempo, form, style, harmony, modulations, dynamics, and timbre.<sup>6</sup> According to Gordon, fluency within music syntax is best fostered if a child is informally prepared to audiate through unstructured and structured guidance during the stages of developmental music aptitude.<sup>7</sup> Some music educators have begun to realize that a child's development of fluency within music syntax may be much like his development of fluency within language.

As an infant learns to function in his environment, he naturally begins to understand the syntax of language. In the initial stages of language development, he is exposed to as many sounds as his environment may provide. Gradually, through sensorimotor responses, he perceives those sounds, and begins to listen to them, to babble with them, to discriminate among them, and to formulate them into useful categories that enable him to think and communicate.<sup>8</sup> Without formal instruction, a normally intelligent child achieves a functional amount of fluency in the production and comprehension of language by the time he enters elementary school.<sup>9</sup>

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<sup>5</sup>For the purpose of this research, fluency within music syntax is the degree to which one has developed the coordination of her innate abilities to breathe, move, and chant, or to breathe, move, and sing.

<sup>6</sup>Gordon, *A Music Learning Theory for Newborn and Young Children*, 22.

<sup>7</sup>*Ibid.*, 1.

<sup>8</sup>Marilyn P. Zimmerman, "State of the Art in Early Childhood Music Education and Research," in *The Young Child and Music: Contemporary Principles in Child Development and Music Education*, ed. Jacquelyn Boswell (Reston, Virginia: Music Educators National Conference, 1985), 67.

<sup>9</sup>Melinda Y. Small, *Cognitive Development* (San Diego: Harcourt Brace Jovanovich, Inc., 1990), 124.

In order to understand language syntax, a child begins to build a listening vocabulary through his sense of hearing. A child's listening vocabulary in language is the basis for his speaking vocabulary, which in turn is the basis for his reading and writing vocabularies. The more varied and rich the listening vocabulary in language, the more a child may achieve his full potential for acquiring language syntax.<sup>10</sup> The same would seem to be true for music syntax development.

As a child begins to build a listening vocabulary and begins to babble in the sounds of his language environment, he also begins to build a listening vocabulary and to babble<sup>11</sup> in the sounds of his music environment. Just as exposure to language and babbling with the sounds of language may be thought of as preparatory thinking in the syntax of language, exposure to language and babbling with the sounds of music may be thought of as preparatory audiation in the syntax of music.<sup>12</sup> Gordon has labeled three types and seven stages of preparatory audiation.<sup>13</sup> Acculturation, the initial type of audiation, is defined in three stages:

- 1) ABSORPTION: hearing and aurally collecting the sounds of music in the environment.
- 2) RANDOM RESPONSE: moving and babbling in response to, but without relation to, the sounds of music in the environment.

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<sup>10</sup>Gordon, *A Music Learning Theory for Newborn and Young Children*, 33.

<sup>11</sup>According to Gordon, music babble is "the 'musical' sounds children make before they develop their senses of subjective tonality and subjective meter." *A Music Learning Theory for Newborn and Young Children*, 120.

<sup>12</sup>Ibid., 19.

<sup>13</sup>Gordon provides a complete explanation of the three types and seven stages of preparatory audiation in *A Music Learning Theory for Newborn and Young Children*.

3) PURPOSEFUL RESPONSE: trying to relate movement and babble to the sounds of music in the environment.<sup>14</sup>

For children in all stages of preparatory audiation, listening is fundamental. Among the many types of music activities Gordon suggests for very young children who are in the stages of acculturation, he advises that teachers and parents should take special care to model short, repetitive songs in a variety of tonalities and meters while performing free and flowing movements for individual children. Gordon theorizes that the specific tonalities, keyalities, harmonies, meters, and tempos of those songs are not important. Rather, what is important is that children hear songs in a diversity of tonalities, keyalities, harmonies, meters, and tempos, so that they may develop their listening vocabularies.<sup>15</sup> In his opinion, "Should children listen to an abundance of music in the same tonality and in the same meter, that type of overlearning will inhibit their learning with ease other tonalities and meters when they engage in higher stages and types of preparatory audiation, and in audiation itself."<sup>16</sup> Gordon states that teachers and parents need to continually familiarize young children with a variety of songs in at least major, harmonic minor, mixolydian, and dorian tonalities, and in at least usual duple, usual triple, unusual paired, and unusual unpaired meters. As a result, he believes that children will develop bonds with those tonalities and meters in music.<sup>17</sup>

To make children's bonding with tonalities and meters as accessible as possible, Gordon advises that songs for children be performed without text. According to Gordon,

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<sup>14</sup>Ibid., 38.

<sup>15</sup>Ibid., 41-43.

<sup>16</sup>Ibid., 41.

<sup>17</sup>Ibid., 41.

text does not help children develop fluency in music syntax. In fact, songs with text may make it difficult for children to comprehend the differences between language syntax and music syntax. Therefore, neutral syllables are recommended for songs performed by adults who are guiding young children through acculturation in music syntax.<sup>18</sup>

Analysis of music syntax and the development of music fluency among young children has led other music educators to suggest that although the language environment and the music environment occur simultaneously, they may best be studied and learned in isolation. Music education researcher, Mary E. Hoffman states:

Songs present competing stimuli to the young learner that often mitigate against interaction with the event. For example, the young child reacts to the stimulus of the words of a song, but the music, its pitch and rhythm sounds, competes with the words for the attention of the learner. Body actions added to a song compete with both words and music. Some young children are able to process words and music together into a song at an early age while others at the same age "speak/sing" with more attention to words than rhythm or pitch. Some children only respond to the movements added to a song.<sup>19</sup>

An observation such as Hoffman's has great implications for the music educators of young children. She advocates that children be informally introduced to songs through humming, sing-chanting, and exploration of sound producing instruments. Then, through the careful sequencing of skills development, children should be guided in the performance of songs with text and body actions. Casual introduction to songs as mentioned by Hoffman would initially require that children be encouraged to participate in music without the use of language.<sup>20</sup>

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<sup>18</sup>Ibid., 43.

<sup>19</sup>Mary E. Hoffman, "Recent Research on Young Children: Implications for Music Education," in *The Young Child and Music*, ed. Jacquelyn Boswell (Reston, Virginia: Music Educators National Conference, 1985), 84.

<sup>20</sup>Ibid., 85.

Indeed, perhaps the best way to become acculturated in music syntax is to be exposed to music and to babble with music that is free of language. For a young child who is busy acquiring language syntax, attention to music syntax may be enhanced when language is not a distracting force. Unfortunately, most adults are not as fluent in music syntax as they are in language syntax. As a result, many adults rely on language for guiding a child through the acculturation of music syntax, and then they confuse a child's inability to sing a song with the child's ability to repeat the words of a song in the sort of speak/sing voice mentioned by Hoffman.<sup>21</sup> Consequently, the importance of the listening stages of preparatory audiation, the stages that enable a child to build a vocabulary of music sounds that are discriminated as different from language sounds, is often overlooked by adults as they resort to their own comfort with language syntax when trying to guide young children through the development of music syntax.

Ideally, according to Gordon, stage one of the acculturation type of preparatory audiation, the initial listening stage, takes place from birth and continues through the first eighteen months of life. During stage one, a child does not make specific responses to music stimuli, but he does hear music in his environment, and he begins to categorize those sounds.<sup>22</sup>

As a child begins to make natural babble sounds and movements, he enters stage two of preparatory audiation. Gordon believes that stages one and two of preparatory audiation probably overlap for most children. Ideally, stage two should occur between ages one and three. That is, between the ages of one and three, children should begin to babble in music sounds. Concurrently, most children continue to sometimes respond to music through listening. In stage two, Gordon recommends that teachers and parents

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<sup>21</sup>Ibid., 84.

<sup>22</sup>Gordon, *A Music Learning Theory for Newborn and Young Children*, 38.

continue to sing songs without text in a variety of tonalities and meters while performing relaxed movements for individual children. Those relaxed movements should be free flowing, much unlike the specific body actions to songs intended by Hoffman. No specific music responses should be expected of a child who is in stage two of the acculturation type of preparatory audiation. A child who is in this stage, however, will begin to make random, uncoordinated movement and babble responses to music stimuli in the environment.<sup>23</sup>

The initial random, uncoordinated movement and babble responses to music stimuli made by children who are in stage two of preparatory audiation may be a result of adult modeling, and Gordon provides guidelines for adults who sing to and move for children. He suggests that adults who sing to children should do so in full voice.<sup>24</sup> Moreover, Gordon proposes that the modeling of sensitive movement is probably the most neglected aspect of a child's acculturation to music; and therefore, it is imperative that tonally and rhythmically competent adults accompany themselves with relaxed, free flowing and continuous movements when guiding children through the initial stages of preparatory audiation. For those young children, the modeling of marching, clapping, or tapping to macro beats or micro beats is not recommended.<sup>25</sup>

When a child begins to make purposeful movement and vocal responses to music stimuli, Gordon suggests that he has entered stage three of preparatory audiation. Purposeful music responses occur as a child actively or passively listens<sup>26</sup> to music and

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<sup>23</sup>Ibid., 44-49.

<sup>24</sup>Ibid., 43.

<sup>25</sup>Ibid., 53.

<sup>26</sup>In *A Music Learning Theory for Newborn and Young Children*, Gordon claims that children participate in active listening when they are moving around, and they participate in passive listening when they seem to specifically attend to music.

tries to relate his movements and vocalizations to that music. For most children, stage three begins when they are approximately eighteen months old and continues until they are about three years old. Because normal children are usually fully engrossed in the process of developing an understanding and use of language syntax when they are eighteen months old, it may be deduced that their continued exposure to music syntax and their continued encouragement to babble in music void of language optimizes their abilities to discriminate between language syntax and music syntax and to concentrate on music syntax.<sup>27</sup> Therefore, children in stage three of preparatory audiation require the individual attention of teachers, parents, and other adults who sing to them songs without text in a variety of tonalities and meters.

According to Gordon, music instruction for children in stages one and two of acculturation should be unstructured and informal. That is, exposure is the rule of thumb, and no specific responses are expected, nor is a specific plan of skill development followed. Music instruction for children in stage three of acculturation remains informal, and exposure to songs without text in a variety of tonalities and meters is of great importance. As a child begins to make purposeful responses, however, music instruction should be structured in relationship to the tonal patterns and rhythm patterns that children are encouraged to sing and chant.<sup>28</sup>

For Gordon, the purpose of stage three of acculturation is to encourage music responses, but not to encourage exact music responses from a child.<sup>29</sup> Gordon claims that teaching a child how to make musical responses is not the objective of any stage of music

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<sup>27</sup>Ibid., 53.

<sup>28</sup>Gordon provides a complete description of the use of tonal patterns and rhythm patterns for children who are in stage three of preparatory audiation in *A Music Learning Theory for Newborn and Young Children*, 53-62.

<sup>29</sup>Ibid., 56.

acculturation. Rather, exposure to the syntax of music in informal musical ways provides the opportunities for a child to teach himself the orders of sound that are music. Never, during guidance through the stages of preparatory audiation, should a child be forced to participate in music activity or be forced to make a music response.<sup>30</sup>

Perhaps the most renowned studies of the development of music syntax were conducted by Moorhead and Pond at the Pillsbury Foundation School. The Pillsbury Foundation School was furnished with a variety of percussion instruments that could easily be manipulated by children between the ages of one and eight. Phonograph recordings of a variety of music were available. All instruments and recordings meant for music making were available to all of the children all of the time.<sup>31</sup> The researchers made extensive written records of the children's spontaneous creation of chants and songs. Moorhead and Pond came to the conclusion that for young children, music is primarily the discovery of sound.<sup>32</sup> Moreover, when left to their own devices, young children create the types of chant associated with the music of so-called "primitive" cultures. That is, children create songs and chants by combining a limited vocabulary of tonal patterns, rhythm patterns, and words.<sup>33</sup>

The purpose of the Pillsbury studies was to observe children creating music in a "natural" setting where children were provided with phonograph recordings and percussion instruments. No unstructured or structured informal guidance specifically in music syntax was given to the children who participated in the studies. Though Moorhead and Pond

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<sup>30</sup>Ibid., 43-44.

<sup>31</sup>Gladys Moorhead and Donald Pond, *Music of Young Children* (Santa Barbara: Pillsbury Foundation for Advancement of Music Education, 1977), 7-8.

<sup>32</sup>Ibid., 45.

<sup>33</sup>Ibid., 9.

made many observations about how children create music through exploration and assimilation of sounds, they did not record the initial responses made by young children who individually receive exposure to various tonalities, meters, and movements by tonally and rhythmically competent adults.

Fox<sup>34</sup> and Andress<sup>35</sup> are leading creators of music education programs for very young children. Both Fox and Andress promote the modeling of songs with text and movements performed by parents and teachers who follow their approaches. Neither Fox nor Andress promotes the modeling of songs without text for children. Moreover, neither Fox nor Andress suggests that the exposure to songs performed in a variety of tonalities and meters with free flowing movements by a tonally and rhythmically competent adult is of any importance in the development of music syntax among young children.

Gordon has provided a learning theory specifically designed to explain how newborn and young children develop an understanding of music syntax. Unlike other researchers of the developmental nature of music understanding, he acknowledges audiation, a type of cognition that is independent of language and dependent on music, as the basis of his theory. According to Gordon, before a child actually audiates, however, he passes through the stages of preparatory audiation.

Guidance through acculturation, the initial type of audiation experienced by a child, should consist of parents and teachers demonstrating the uniqueness of music syntax to a child. Ultimately, that guidance should provide the necessary environment for optimum music audiation, music aptitude, music achievement, and music enjoyment. According to

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<sup>34</sup>Donna Brink Fox, "Music TIME and Music Times Two: The Eastman Infant-Toddler Music Program," in *Promising Practices: Prekindergarten Music Education*, ed. Barbara Andress (Reston: Music Educators National Conference, 1989), 13-24.

<sup>35</sup>Barbara Andress, "A Parent-Toddler Music Program," in *Promising Practices: Prekindergarten Music Education*, ed. Barbara Andress (Reston: Music Educators National Conference, 1989), 25-35.

Gordon, an important part of each young child's guidance through the initial stages of acculturation is the individual attention he receives from adults who perform songs without text in a variety of tonalities and meters while accompanying themselves with relaxed, free flowing, and continuous movements. Presently, there is no objective record of how children who are being guided through the initial stages of preparatory audiation respond to that type of music stimuli. The purpose of this exploratory research was to provide a record of the responses made by young children to music stimuli during acculturation so that the practical application of the music learning theory for newborn and young children may be enhanced and specific findings may be studied further.

#### Problems

The following were the four problems of this study.

While young children were being exposed to a variety of tonalities and meters over the period of one academic year, comparisons were made of

- 1) their responses to a familiar song, sung to each child individually, without text, at specific intervals.
- 2) their responses to four unfamiliar songs, sung to each child individually, without text, at specific intervals.
- 3) the familiar-song responses elicited in procedure 1 and the unfamiliar-song responses elicited in procedure 2, and
- 4) the familiar-song responses and the unfamiliar-song responses arranged to neutralize the variables of order (familiar/unfamiliar) and time of response (beginning of class/end of class).