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Music and Language in Early Childhood Development and Learning a

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Abstract and Keywords

This article, which investigates the relationship between music and language in development and learning during early childhood, does so by considering the potentials and inborn abilities in early childhood, the environmental influences, and the interactions between music and language development in children. Finally, it discusses implications for education, suggesting an integrated approach to music and language learning.

Keywords: music learning, language development, inborn abilities, potential, environmental influence, children

Music and language are the two symbol systems that humans have developed to communicate through sounds. Evidence gathered from research in various disciplines, including anthropology, cognitive psychology, developmental psychology, and the neurosciences, demonstrates that music and language are closely related in development.

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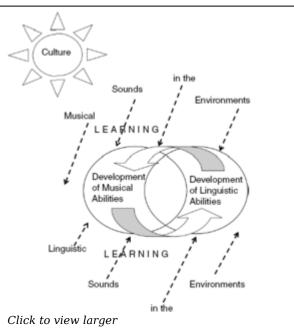


Figure 2.4.1 The relationships and influences on the development of musical and linguistic abilities.

Anthropological studies investigating the evolution of music and language have demonstrated that our early ancestors (Neanderthals) developed a means of communication that lay between music and language prior to the development of the two separate systems (Mithen, 2005). Music is deeply rooted in human evolutionary history and belongs to our biological nature (Dissanayake, 2000; Mithen, 2005). Cognitive psychologists have found

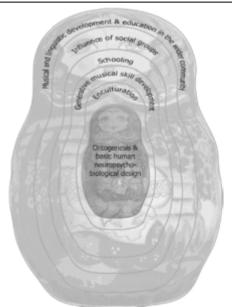
that music and language stem from common origins and are dominated by common processing tendencies (Trehub, 2006). Moreover, the perception of speech and music seems to be related from the earliest stages of development (Trehub, 2006). (p. 262)

Recent findings on brain development provide further insight into such relationship. Sound is processed in the auditory cortex, whereby the acoustic cranial nerve synthesizes various sensory inputs and then interprets linguistic, musical, tactile, visual, and kinesthetic stimuli (Özdemir, Norton, & Schlaug, 2006). Hence, music processing often utilizes overlapping regions in the brain and shares processing components with language. Adding to such complexity, evidence for both distinct and integrated processing modules for music and speech has also been found. Some processing components appear to be perceptual prerequisites for music processing; some appear to be specialized for music; and some appear to be involved in the processing of both music and speech (Peretz & Hyde, 2003).

Music and linguistic research literature has indicated that music and language are indistinguishable during the early stages of development, only becoming more diversified at the later stages. During the early stages of life, fetuses and babies perceive sounds in their environment without necessarily differentiating between the sounds as music or language, although they are able to make sense of the music and language they encounter. Babies also produce vocalizations without considering whether they are singing or speaking (Chen-Hafteck, 1997).

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Figure 2.4.2 The Russian Dolls Model of Musical Development (Welch, 2006). Adapted with permission from Welch (2006, p. 252). Intellectual copyright © 2006 G. F. Welch, design copyright © 2011 E. Himonides.

It is clear that the development of musical and linguistic abilities is closely related. Besides exerting influence on each other, there is also some overlap between these abilities. In addition, environmental factors play an important role in the learning of music and language. Children are exposed to both music and language sounds in their environments, which are specific to their culture (see fig. 2.4.1). (p. 263)

This chapter is informed and underpinned by Vygotsky's sociocultural

theory of development. Development is not only something that happens within the child. More important, the world into which the child is growing must also be considered. Development is the process of growing in and through culture. Welch's (2006) "Russian Dolls" model (see fig. 2.4.2) highlights the complex yet integrated nature of the various influences that shape musical development and is also used as the basis of the present discussion. The basic neuropsychobiological design of each child is the core, shaped by musical and linguistic enculturation and generative musical and linguistic skill development, both of which arise from interacting with social groups and formal and informal education within a wider community.

In this chapter, we will investigate the relationship between music and language in development and learning during early childhood. Such relationship will be examined through investigating the potentials and inborn abilities in early childhood, the environmental influences, and the interactions between music and language development in children. Finally, the implications for education will be discussed, suggesting an integrated approach to music and language learning.

(p. 264) Musical and Linguistic Abilities in Young Children

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Certain elements in sounds, such as frequency, timing, and timbre, are commonly used in music and language. The cognitive processes needed to perceive, organize, and produce these sound elements facilitate the production of music and language. A large body of infant music research has demonstrated that babies are born with a range of musical abilities (see Adachi & Trehub, chapter 2.2). In this section of the chapter, discussion will focus on how young children's musical abilities are closely connected to linguistic abilities. Research findings on infants' sensitivity to and production of sound features that are fundamental to both music and language will be presented for this purpose.

The common musical and linguistic abilities to be examined include (1) the discrimination of pitch and rhythm; (2) the recognition of melodic contour/speech intonation; (3) the perceptual organization of sounds into musical phrase/sentences; (4) the memory of speech/music; and (5) vocalization. The parallel between the abilities in music and language is evident, in particular during early childhood, as young children tend to work in a holistic manner, without differentiating between the two domains. What adults classify as music or speech may not necessarily be the case for children of this age.

Pitch and Rhythm Discrimination

Pitch and rhythm are important elements in both music and language. Pitch and rhythm discrimination is not only required in learning music, it is also needed for language acquisition as children learn the nuances of the language in their environment. The ability to discriminate pitch and rhythm is important from early childhood, as infants detect subtle changes in pitch and rhythm from birth (Trehub, 2006).

Recognition of Melodic Contours/Speech Intonation

The ability to recognize melodic contours in music is used to recognize the intonation contour of speech, which is also a series of pitch variations. Intonation is a prosodic feature that enhances the understanding of the meaning of language, particularly its emotional implications. Very young babies can recognize a recently heard melody played to them. They can distinguish the transformation of a melody if the melodic contour is altered or if some sounds are changed (Trehub, 2006). Such pitch-contour processing is an important perceptual organizational device for infants, in processing not only musical sequences but also speech sequences (Trehub, 2006).

(p. 265) Perceptual Organization of Sounds

Infants demonstrate their abilities of perceptual organization of sounds very early in life. The ability to group sounds appears around the age of two months; and the ability to group and segment units in both speech and music then emerge at the age of four to six months (Trehub, 2006). Moreover, babies of this age also demonstrate awareness of

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musical phrase structures that are based on pitch and rhythmic patterns (Trehub, 2006). According to Patel (2008), the ability to form categories of sounds, to extract regularities from rhythmic and melodic sequences, to integrate incoming sound elements into syntactic structures, and to derive emotional meanings from acoustic signals are needed for processing both musical and linguistic stimuli. Thus, there is clearly a substantial overlap in the mechanisms of our cognitive and neural systems that process the common elements in music and language.

Memory of Music and Speech

The ability to remember music and speech is important for music and language development and learning. Infants' musical and language memory is evident from the findings of studies investigating preference for familiar over unfamiliar words in a story and familiar over unfamiliar passages in Mozart piano music. In both studies preference for familiar words and music were found after a two weeks' delay following repeated exposure (Trehub, 2006). Prenatal memory is also present. Infants are attentive to speech sound and can identify their mothers' voices (Parncutt, 2006). Newborn babies are able to recognize music that they heard before birth (Woodward, 1992). This suggests that music and language learning start even before birth, as soon as the developing auditory cortex becomes enabled in the fetus.

Vocalization

Early vocalization of young children serves an important function in both music and language development by preparing them for vocal production in the two domains. Crystal's (1997) linguistic developmental stages of early vocalization, well established in the literature of language development, are used as the basis of the following discussion.

Basic Biological "Noises"¹ (Zero to Eight Weeks)

Infants' early "noise"-making includes reflexive vocalization, vegetative noise, and crying. At this stage, due to the limitation of physical motor skills, infants have little control over their vocalization. Such "noises" serve as practice and preparation for more controlled vocalization in the future.

(p. 266) Cooing (8-20 Weeks)

Cooing is quieter, lower pitched, and more musical than crying. It consists of short vowellike sounds preceded by consonant-like sound made toward the back of the mouth. Cooing emerges as the first gross activities required before speech production starts. These activities include the tongue moving vertically and horizontally; the vocal folds becoming more coordinated; and lip movement and tongue thrusting appearing. In music development, cooing is considered to be the earliest of vocal sounds, leading toward the development of melodic modulations and phrasing vocalization (H. Papoušek, 1996).

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Vocal Play (20-30 Weeks)

When engaging in vocal play the developing infants' sound-making is characterized by high pitch levels with wide glides from high to low and a wide range of consonant and vowel qualities. Typical sounds include squealing, growling, and yelling. This is an important time for children to experiment with their voices and explore the capacity of their vocal mechanism. In this way, they are preparing to sing and speak as they gain more vocal control.

Babbling (25-50 Weeks)

Babbling is less varied than vocal play. "Reduplicated babbling," which involves the repetition of a single syllable, develops first. It is followed by "variegated babbling," which is multisyllabic. Babbling can be related to development of rhythmic abilities, resembling rhythmic games through which rhythmic abilities can be enhanced (H. Papoušek, 1996). Some describe babbling as a kind of vocal exploration of pitch loudness and timbre (Dowling, 1988).

Melodic Utterance (9-18 Months)

Variations in melody, rhythm, and tone of voice are evident as infants begin to produce melodic utterances. These utterances are characterized by a variety of stress patterns and intonation contours. According to Crystal (1997), they are the first real signs of language development. It is during this stage that the vocalization of children from different language environments begins to sound different. At this stage the melodies of songs in children's environment can be more clearly identified in children's vocalization. From the age of one year onward, first songs and first words start to emerge, and singing and speech begin to become more distinct (see Barrett & Tafuri, chapter 2.6).

Distinction between Singing and Speech

It is actually quite difficult to distinguish between the intonation contour in speech and melodic contour in singing in early vocalization (Chen-Hafteck, 1997). Mang (2001) calls such a phenomenon "intermediate vocalization." In a study of the early (p. 267) vocalization of English monolingual and Chinese bilingual children she found that even though English monolingual children displayed clearer distinctions between speech and singing than Chinese bilingual children, these distinctions were somewhat "fuzzy."

In summary, this cross-domain comparison of music and linguistic abilities in early life suggests interesting connections between music and language development in early childhood. Many overlapping and indistinguishable characteristics are evident in the two. Therefore, in early childhood education, it is important to consider the two areas of development simultaneously.

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Musical and Linguistic Sounds in the Environment

Children are born with unlimited potentials to learn the language and music of any cultures (Eimas, 1985). However, the development of linguistic and music skills gradually narrow to focus on the language and music of the native culture and environment in which children live. They then gradually lose their abilities as natives to learn readily the sounds of music and languages that differ from their own. For instance, children who are born in Hong Kong keep their minute pitch discrimination abilities, as they have to listen and speak a tonal language, Cantonese, in their everyday lives. Children in South Africa keep their singing and rhythmic skills strong as they grow up in an environment where they often engage in singing and dancing. Children from other cultures where such skills are not promoted will not keep these specific abilities, which they also possessed at birth. Therefore, the sounds in the environment that young children are exposed to are crucial to their music and language development.

Beginning of Environmental Sound Experiences

Both music and language sounds in the environment start to influence children even before they are born. The auditory system of the fetus begins to process sounds as early as the sixteenth week, before it is anatomically mature. Conversely, sensory learning begins only after the twenty-fifth week, when the connections between peripheral sense organs and the central nervous system start to mature (Parncutt, 2006). The acoustic environment surrounding the fetus, both inside and outside the womb, is rich in sounds and stimulation for the unborn child. The fetus responds to external auditory stimuli through body movement and changes in heartbeat (Woodward, 1992). Prenatal hearing seems to have its survival value. It serves its role in the preparation of sound perception, language, and bonding (Parncutt, 2006). When infants are born, they have already experienced, in some (p. 268) ways, elements of the music and language sounds of their culture and are ready to interact with people in their environment.

Infant-Directed Speech and Singing

Very young children are born with a natural preference for sounds that possess more musical characteristics over those with less, as demonstrated by their preference for:

- Infant-directed speech over adult-directed speech (M. Papoušek, 1996)
- Maternal singing over maternal speech (Trehub & Nakata, 2001/2002)

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• Infant-directed singing over adult-directed singing—even among hearing infants of deaf parents who had minimal acoustic exposure to music and language in comparison to infants with typical hearing parents (Masataka, 1999)

Infant-directed speech and singing are the vocal communications that adults use in addressing children. Both possess strong musical elements. Infant-directed speech has a relatively higher and wider pitch range, more expanded pitch contours, a slower tempo, longer pauses, and shorter phrases containing less syllables as compared to adultdirected speech (M. Papoušek, 1996). Infant-directed speech has been found in many cultures and languages, including among German, Caucasian American, Mandarin Chinese, and Japanese mothers (Masataka, 1999; M. Papoušek, 1996).

Although infant-directed speech has been found in many cultures, it is not universal. Among the African-American working-class community in North Carolina, people in Samoa, the Kaluli of Papua New Guinea, parents rarely talk to babies. Among the Quiche Mayan in Guatemala, high pitch is used to address people with high status, and children who have low status are addressed in low pitch (Cruttenden, 1994). Cruttenden suggested that the standard features of infant-directed speech occur among the middleclass parents in industrially advanced societies, but not in certain more traditional societies such as the ones discussed above.

"Communicative musicality" (see Trevarthen & Malloch, chapter 2.3), the use of music to converse emotionally with others, is often present in mother-infant communication. This phenomenon can be explained by the so-called Intrinsic Motive Pulse (IMP), which is generated by brain mechanisms to act, experience, and communicate. Such musical expression is considered to be important because it allows free and sympathetic expression of IMP, and of moving and feeling. IMP is necessary for both the development of the mind and for emotional health (see Trevarthen & Malloch, chapter 2.3). This supports Dissanayake's (2000) position that early music-making is a survival mechanism and that the mutuality in mother-child interactions actually helps us to evolve as humans.

In summary, songs and speech that are directed to children are most influential to their music and language development. It is evident that infants are born (p. 269) with sensitivity to and preference for musical characteristics across infant-directed speech and singing.

Songs and Singing in Children's Environment

As children are naturally attracted to musical sounds and music enhances emotional expression, many parents like to communicate with infants through singing. Singing is found to be the most common musical activity in which parents engage with their babies. Moreover, it is used in everyday life in American families with young children for routines, associated with daily activities, maintaining, adapting, and creating traditions of the families and their culture, and musical play with songs (Custodero, 2006). The two

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genres of songs that are often present in children's environment are play songs and lullabies (Trainor, 1996). Since songs are an integration of text and melody, being exposed to songs implies having an integrated experience in music and language.

Children's songs exist across different cultures in the world. Every culture has its own traditional children's songs. They play a significant role in providing a means of communication between young children and adults, and transmit sociocultural values and customs to the new generation. Differences due to the functions of children's songs and the role children play in various societies can be observed. For instance, a majority of English nursery rhymes are reported to have a simple melody and rhythm so as to help young children learn them easily. By contrast, many South African children's songs have strong rhythmic character, as children are expected to move and dance with the songs. Traditional Cantonese children's songs have complicated and long texts, as they are not supposed to be sung by children themselves but rather by adults for children to follow (Chen-Hafteck, 2007).

There is also a reported link between language and singing style within the constraints of the cultural setting, including impacts on the pitch and rhythmic structures of the songs. In tonal languages, pitch serves a lexical or grammatical meaning in the form of linguistic tones. Most Asian languages (including all the Chinese languages and Vietnamese, Thai, and Lao) and most languages of sub-Saharan Africa are tonal. In contrast, the intonation of nontonal languages serve expressive purposes. Thus, the pitch inflections of tonal and nontonal languages are very different, and as songs consist of words, songs in tonal and nontonal languages bear different characteristics, as discussed below.

Language-specific vocal behaviors are observed. Compared with English monolingual and English bilingual children, Cantonese-speaking children tend to sing songs with a pitch center closer to the one used for speech. Cantonese-speaking children were also found to be more prone to conflate linguistic pitch movement in speech with melodic interval in music (Mang, 2001). Moreover, differences in children's singing of their cultural songs have been found among children speaking different languages. The meters of Venda children's songs are reported to be determined often by the spoken rhythm of the first word-pattern in their text, and (p. 270) their melodies are closely related to the tones of ordinary speech (Blacking, 1967). Japanese children sing in the style of "intermediate performance between talking and singing" when singing traditional Japanese songs, demonstrating a strong characteristic of the Japanese language (Fujita, 1990). When compared with British children, Cantonese-Chinese children sing with a more detached style, while African children sing with more glissandos (Chen-Hafteck, 2007). Thus, a close relationship between language characteristics and children's singing is evident.

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Interactions of Music and Language Development in Young Children

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Reciprocal Influence of Music on Language Development

Songs are an integration of text and melody. Singing a song is, therefore, an experience not just in music, but in language as well. Thus, educators often use musical experience in songs as a vehicle to facilitate language development in young children. The structuring properties of music in songs facilitate segmentation of word syllables while the music in songs can help keep children engaged and thus motivate learning of the language (Schön et al., 2008).

In education, songs are often introduced to young children in order to develop, enrich, and consolidate a wide range of knowledge and skills that are both musical and nonmusical. Traditional children's songs carry with them the language, together with the cultural knowledge and values from their original culture. Through singing these songs, children can learn both the language and the cultural context of the songs. Moreover, through singing play songs such as singing games or action songs with other children and adults, opportunities to develop social skills and hands-on experience to use language interactively with others can be provided.

The positive influence of musical abilities on language abilities has also been supported by an observed music-syntactic processing ability appearing at an earlier age than those of syntactic language processing. It is suggested that developing musical abilities at an early age will enhance children's abilities in processing the musical elements in speech, which is crucial for language acquisition (H. Papoušek, 1996; Trehub, 2006).

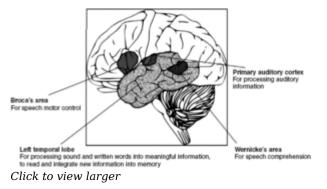


Figure 2.4.3 Main language-processing structures in the left hemisphere of the brain.

In addition, research in neuroscience has also demonstrated the effects of early musical training on language development. Music training during childhood invokes domainspecific processes that affect salience of musical input and the amount of cortical tissue devoted to its processing (Hannon &

Trainor, 2007), and serves as a kind of sensory stimulation that somehow contributes to the better (p. 271) development of the left temporal lobe in musicians, thus facilitating verbal memory (Ho, Cheung, & Chan, 2003) and literacy (Anvari, Trainor, Woodside, & Levy, 2002). Furthermore, it was found that music training brings about more efficient auditory discrimination by enhancing language areas in the brain to process pitch and timing changes. Music training appears to have cross-domain effects on language development, such as enhancing word syllable discrimination (Gaab et al., 2005), promoting sensitivity to prosodic structures (Wong, Sloe, Russo, Dees, & Kraus, 2007),

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increasing brain responses to violations of linguistic pitch (Magne, Schön, & Besson, 2006), as well as syntactic structure (Jentschke, Koelsch, & Friederici, 2005). Moreover, an increase in the duration of music training might lead to a greater extent of cortical reorganization in the left temporal region (Hyde et al., 2009) and thus yield increasingly better verbal learning ability (Ho, Cheung, & Chan, 2003). In addition, it has been suggested that music training affects verbal long-term and working memory and enhanced verbal memory advantage (Franklin et al., 2008). As can be seen, current research literature suggest that music training enhances the development of specific language processing networks (see fig 2.4.3), which are not found in nonmusically trained counterparts.

Music Instruction with Children with Delay in Language Development

When examining structural differences in dyslexic brains, the left planum temporale, a brain area involved in auditory processing of language and music, was found to be smaller than the right side. By contrast, nondyslexic brains feature normal asymmetry of the planum temporale, with the left side being larger. Findings in (p. 272) brain research have revealed that the cerebella and the left planum temporale region of the brain are found to be larger in musicians than nonmusicians (Patel, 2008).

Research findings and anecdotal evidence from music teachers and therapists concur that music training may be an effective remediation tool for children with dyslexia (Overy, 2003). Douglas and Willatts (1994) report that "poor readers" who received six months of music lessons performed significantly better on a reading test than a similar group who received training in discussion skills. Snowling and Thomson (1993) found that tapping out the number of syllables in a word to a steady beat can improve spelling performance in children with dyslexia. Since children with dyslexia often have problems with temporal processing, remediation programs with emphasis on clapping and percussion music games are recommended (Overy, 2003).

The use of music in assisting language learning among children with delay in language development has been found to be effective (Seeman, 2008). Music has served as a motivating factor that helps keep those children experiencing learning delay engaged in learning and enhances their learning skills (Portowitz & Klein, 2007). Even for children with hearing loss, songs and musical activities can facilitate their language development and communication skills (Schraer-Joiner & Chen-Hafteck, 2009).

Reciprocal Influence of Language on Music Development

The childhood language environment plays a crucial role in formulating a foundation for music processing in adulthood. Evidence for possible language influences on musical abilities has been found, for example, in processing of the "tritone paradox" (Deutsch,

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Henthorn, & Dolson, 2004). It was also suggested that exposure to certain patterns of speech could influence perceptions of musical rhythms (Patel, 2008). Moreover, Chinese subjects were reported to demonstrate greater accuracy over American subjects in music perception (Ivry & Robertson, 1998). Such differences may be explained by differences between these groups in exposure to stimuli of native spoken language. Chinese (including Cantonese and Mandarin languages), being a tonal language, utilizes pitch to express emotional and other paralinguistic information as well as lexical information. English, being a nontonal language, utilizes pitch to express emotional and other paralinguistic information.

Studies have shown that language has significant effects on the singing competency of children. It was found that the tonal characteristics of Cantonese language (a Chinese dialect) might give an advantage in singing accuracy to Cantonese-speaking children over English-speaking children in Hong Kong, as the former achieved a higher level of pitch accuracy in singing songs than the latter (Chen-Hafteck, 2010). In Hong Kong, Cantonese monolingual children were reported to perform consistently better than English bilingual children in both melodic singing accuracy and the use of singing voice (Mang, 2006). Cantonese-speaking children were also found to use more distinctive pitch centers for speech and for song at an earlier age, compared to English-speaking children (Mang, 2001). In addition, children in a Cantonese immersion preschool in the United (p. 273) States showed higher accuracy in pitch-matching than their English-speaking counterparts (Trollinger, 2004). On the basis of such findings, Trollinger suggests that native English speakers who also learn to speak a tonal language while young may develop vocal skills that allow them to match pitch and consequently sing accurately. Because pitch in language is processed unconsciously, tonal language speakers decipher lexical information via subcortical pathways in the brain. Hence, there is evidence suggesting that the childhood language environment plays a crucial role in formulating a foundation for music processing in adulthood (Mang, 2007).

In addition, research findings on children from different cultural and linguistic backgrounds demonstrated differences in the use of singing voice. Children from Israel scored lower than Hong Kong and American children in a Singing Voice Development Measure (SVDM), indicating that the Israeli children did not use their singing voices as much as the other two groups of children (Rutkowski, Chen-Hafteck, & Gluschankof, 2002). This was clearly related to the Israeli children's speaking range, which was relatively lower than the others, leading to lack of the use of their higher singing range. In Africa, due to the characteristics of the indigenous songs and languages, higher singing accuracy among the Nharira children in Zimbabwe (Kreutzer, 2001) and more advanced song-learning development among the South African children in comparison to the American children have been found (Chen-Hafteck, 2007). The reciprocal influence of language skills on musical skills is evident from these study findings.

As we see from the above discussion, there is a symbiotic relationship between music and language in development. For very young children, the relationship between music and

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language is so close that they are indistinguishable. Yet as children grow in age, it is important that they continue to experience a close connection between the two, even though they may start to learn and experience them differently due to their environment.

Toward an Integrated Approach to Music and Language Learning

The parallel development of both musical and linguistic abilities is natural to children. We suggest such parallel development should be encouraged so that young children may realize their musical potential as naturally and easily as they do their linguistic potential. Moreover, the learning of music can enhance the learning of language, and vice versa. This idea has long been promoted by music educators, such as Carl Orff and Zoltan Kodály. Orff believed in the unity of speech, music, and movement in artistic expression. Kodály considered traditional rhymes that reflect the natural speech rhythm to be important materials for music teachers. The two approaches, therefore, encourage the development of both linguistic and musical skills simultaneously. The Orff approach starts musical training from (p. 274) speech rhythm, traditional rhymes, and songs, which are then integrated with musical expression, movement, and creativity. Music and language learning experiences become an integrated whole. The Kodaly approach uses game songs that are highly repetitive and melodically simple to help build "inner-hearing" (aural) skills and accurate singing (oral) skills. Those music activities could be valuable to the development of social skills and self-confidence in children, including those children with special needs, whereby language experience, aural sensitivity and discrimination, and motor skills are cultivated in enjoyable and purposeful music game settings.

Some contemporary music learning approaches support the principal of simultaneous development of musical and linguistic skills. Education Through Music (ETM) (Richards Institute of Education, 2011), which emphasizes language and communication experience through music games, is one example. ETM seeks to align with contemporary understanding of learning, motivation, child theory, and cognitive development. Similar to the Kodaly approach, it derives real-life learning situations for children through "song-experience-games." The repetitive game format provides an incentive for children to engage in repeated practice in symbolizing its musical and linguistic elements and draws children to learn in an engaging and fun environment. Over the past two decades, the ETM approach has been implemented in Japanese schools as a musical tool for learning English as a second language (Richards Institute of Education, 2011).

Conclusion

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Infancy and early childhood are periods of enhanced perceptual flexibility (Trehub, 2006). For parents and educators, it is a period when children most readily engage in musical exploration and creativity and are able to respond positively to musical activities that integrate with other areas of learning, such as language and social skills. Whereas the benefits of early childhood music education have received tremendous attention in recent years, we should not overlook how children are innately predisposed to take pleasure in music and language experience, which profoundly enhances the meeting of their developmental needs. Although all children have the potential to develop their musical abilities, not all environments maximize such development early in life. Unfortunately, due to the need in many language-oriented societies for children to acquire linguistic skills as soon as possible for communication purposes, language is reinforced much more than music. So musical abilities have lagged behind, even though young children arguably possess similar potential to develop both musical and linguistic skills. Thus parents and educators need to provide an environment that will encourage a well-balanced development of both music and language from the earliest stages.

(p. 275) It is, therefore, imperative to pay special attention to selecting songs that are rich in linguistic stimuli. Songs that involve words with rhythmic articulations and prose with potentials for distinctive speech inflections provide developmentally appropriate music and language experiences for children. In this way, we will be able to promote an integrated approach to music and language learning. Such an approach will provide young children with the opportunities to explore their potentials to connect their musical and linguistic abilities and, thus, enhance the mutual development of music and language.

Reflective Questions

1. Observe and describe how (a) young children of three different age groups (zero to one year; two to three years; four to five years) communicate with adults and/or peers, and (b) a mother, father, or adult caretaker communicates with a child. What are the musical and linguistic elements present in these communications? Are there any overlaps?

2. Observe and describe a typical music lesson for young children. To what extent are music and language connected in the lesson?

3. What are the benefits that children can gain through an integrated approach to music and language learning?

4. Design a lesson for young children that demonstrates an integrated approach to music and language learning.

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Notes:

(1.) Note that the term "noise" is used by Crystal (1997) in the original.

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