

Music and Language

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Abstract: The argument for using music in educational context has been debated for years. The literature in this field is mostly based on anecdotal stories and the researchers mostly base their studies using the other disciplines such as psychology and philosophy. Under the umbrella term “Music and Language”, this paper discusses the relationship between music and language in a broader context even including its use in curing speech deficits in brain-damaged people. More specifically, it addresses how both affect each other, the significance of music in teaching and learning languages as well. The paper is likely to suggest certain pedagogic implications to be utilized not only in language teaching but also in education in general.

Introduction

Although verbal language appeals to a restricted community of speakers, the language of music addresses to a diversity of speakers, either in the same language or in the other languages. This could be illustrated with an anecdote. When Franz Joseph Hydn, a famous composer, decided to visit some European countries at the age of fifty-eight, his friend Mozart reminded him that he might have difficulties due to the lack of a common language. Hydn appropriately responded: “My language is understood all over the world”. This anecdote might lead us to think that music is an international language, in other words the true *lingua franca* (Kivy, 2007).

So far, some common characteristics of music and language have been noted by researchers. To begin with, Mithen (2006) describes both language and music as “combinatorial systems” which contain acoustic elements such as words and tunes. Words and tunes constitute utterances or melodies. Although there are obviously differences between music and language, the two domains share some commonalities such as symbols, grammar, and information transmission (Mithen, 2006). Although music and grammar are thought to be divergent in nature, there are times when music facilitates learning grammar. Chomsky finds it unbelievable that children can acquire a language in the same way they learn to draw, play a musical instrument or ride a bicycle. As the language they hear from their environment is not sufficient for comprehending the grammatical rules, they develop their own utterances. Among the researchers, this was named as “the poverty of the stimuli”. As a result, the idea of “Universal Grammar” emerged. Universal Grammar is described as an innate state of mind which provides a readiness for language acquisition, and it is universal for all *Homo sapiens* (cited in Mithen, 2006). Many language researchers who support the idea of Universal Grammar suppose that adult language learners have the same access to Universal Grammar (McLaughlin, 1991). As a result it might be possible to say that both children and adults might ease the way they acquire a language more quickly when they are exposed to it together with music since music has the same pattern in itself. Mithen (2006) proposes that “Universal Grammar” can be the musical equivalent of the musical competence. Although musical grammar does not provide the meaning in a similar way, many musicologists agree that the musical competence is equivalent to a grammar like that of language (p.20). Therefore, it can be assumed that music and language share similar structures which might ease learning one with the help of other.

Secondly, Fitch (2005) proposes that music and language share another similarity in cognition. Music and language contain listening and production stages. The two domains share certain phonological (rhythm) and hierarchical phrase structures, and also both can be written and notated. These similarities are considered to help students develop their cognitive abilities in an easier way. Mott (2004) clarifies that music can enhance children's self-expression, creativity, and cognitive development. His study revealed that implementing music into the school program besides traditional methods can aid the improvement of language skills in children. As music and language are naturally interrelated, it has been suggested that language teachers encourage their students to involve in language through music, because communicating through a musical medium is advantageous for language learners (Stansell, 2005). Arguably, the use of music might lead language learners to absorb the knowledge in an indirect way. According to the cognitive psychologists, music listening allows listeners to absorb and abstract the structural information unconsciously (Raffman, 1993). In a research study, it has been revealed that implementation of music into school curriculum had beneficial effects in terms of language learning. Results of the pre and post test scores indicated that 93% of the participants in the treatment group improved one or more language levels when compared to 23% in the control group. Moreover, the teachers who participated in the study were happy with using music in their classes (Ray, 1997). A similar longitudinal study was conducted to search for the effects of music experience on the vocabulary and verbal sequencing skills of primary grade students. Experimental group had piano lessons in their schedule for three years, and control group was not exposed to music either formally or as a private study. The results revealed that there was a significant difference between the scores of experimental and control group's vocabulary and verbal sequencing scores in favor of the experimental group. It was observed that using music had a positive effect on cognitive skills of the students enhancing their knowledge in language and literacy (Piro & Ortiz, 2009). A further similarity between music and language is the comprehensible nature of the both. Due to the similarities between the properties of music and language combined with the universal nature in which music can be understood by people, Krashen helps us to understand that music is the essential comprehensible input. According to Krashen (1987), an effective language teacher is someone who teaches students first providing the input, second making the input comprehensible, and third doing the first and the second in a low anxiety context. When these three are provided, the Language Acquisition Device (LAD) is stimulated. LAD is a mental device in which a newly learned language is processed.

There are various parts of Krashen's theoretical framework of L2 acquisition that have been argued to provide support for why music is a useful tool in language teaching. To illustrate, while learning a language, comprehensible input plays a crucial role to maximize learning. For beginner learners, simplification of the input is necessary. In order to promote comprehension, high frequency words, simple structures, and short sentences are needed (Krashen, 1987). Songs are very advantageous in that they contain most commonly used vocabulary, and shorter sentences. Krashen, however, notes that the song must be at appropriate level to serve as an effective comprehensible input. There should not be difficult structures or vocabulary items for students and lyrics should be clear (Abbott, 2002). Krashen's comprehensible input theory including $i+1$ (the level which is a bit beyond the learner's current level) can be the starting point where songs can provide comprehensible input for language learners, primarily in promoting speaking. Krashen postulates that in order to start to speak in a language, one should obtain sufficient amount of comprehensible input. Speech occurs after building a language competence through comprehensible input (Krashen, 1987). Nussel and Cicogna (1991) agree that within Krashen's theoretical framework of second-language acquisition, songs provide myriad examples of auditory and written sources as stimuli. In addition to promoting speaking abilities, music can be a facilitator to teach vocabulary. Songs have a repetitive nature which helps students learn vocabulary items more easily (Brown, 2006). Exposure to songs may enhance the knowledge of new vocabulary in context. While teaching the lyrics of the songs, finding the familiar words and playing vocabulary games might be some of the activities which help acquirers memorize words better (Abrate, 1983). In addition, songs might be a good regulator to keep not only children's attention on the track but also adults' when telling stories. Everybody can benefit from songs as they are both educatory and entertaining (Brown, 2006).

In ELT context, music might be a potential device in order to promote language abilities. Music videos particularly might provide authentic teaching materials to increase students' comprehension since they contain lexical, grammatical, and functional material. Also, they help learners use their imagination more effectively in order to put the target language in use (Garza, 1994). Moreover, it might be beneficial to mention about some qualities of music when teaching a foreign language. Maley (1987) describes these qualities in order by their usefulness in teaching a language. The qualities are memorability, performance/reciteability, ambiguity, non-triavality, universality, playfulness, reactional language, and motivation/interaction. These qualities particularly help learners to improve their language skills when used in an authentic context. Songs authentically meet the need even providing a better retention (cited in Garza, 1994).

Using songs in ELT context might ease teaching the language since processing of music and language both find a place to correlate in an area of the brain. This idea is also supported by Lake (2002-03) confirming

that both hemispheres of the brain digest music with words more effectively. In this sense, using music might ease learning more words in a language, stimulating the both hemispheric parts of the brain. The overlapping of the speech and singing is also mentioned in other studies by some researchers (Patel, 1998; Maess, Koelsch, Gunter, & Friederici, 2001).

Another contribution of music to the activation of the hemispheric parts of the brain might be via auditory input. Auditory input is a considerable outcome of music while learning a language. In an article discussing musical and linguistic processing in song perception, Schön *et al* (2005) mention that songs possess two dimensional processing in the brain: linguistic and musical. Although previous studies reveal that music processing occurs in the right hemisphere and linguistic processing occurs in the left hemisphere, Schön *et al* confirm that because of its two dimensions, song perception occurs in both hemispheres. Further, they state that singing or auditory stimuli builds a bridge between language and music via the neural system in the brain. Thus, it can be useful to use songs in the learning process as listening to music might facilitate the functioning of both hemispheres of the brain.

The interrelatedness between music and language in both hemispheric parts of the brain led scientists to search for the effect of music as a tool to repair speech deficits. From the earlier times, music is known to be a vehicle for curing some speech deficits. Thaut (2005) presents a few musical techniques for the improvement of speech impairments. These include Melodic Intonation Therapy, Musical Speech Stimulation, Rhythmic Speech Cuing, Vocal Intonation Therapy, Oral Motor and Respiratory Exercises, Developmental Speech and Language Training through Music, Symbolic Communication Training through Music, and many others. All these techniques use music as a medium to cure language impairments. Sessions range from using songs, rhymes, chants, musical phrases, and auditory rhythm to cue speech, singing, breathing exercises, and oral motor and respiratory exercises. All of these activities are used to develop speech and language through music in brain-damaged people.

In 1973, Albert and his colleagues used a music therapy called 'melodic intonation therapy' to cure aphasic patients. The patients got the music therapy for three months. In two weeks, a sixty-seven-year-old man developed a good amount of vocabulary, and at the end of the six weeks he was able to produce short, meaningful sentences. At the end of the melodic intonation therapy, the patient started to utter quite a lot amount of words again (cited in Sacks, 2007).

Jourdain (2002) confirms that music has a great power to cure brain-related diseases. As an example he gives the case of a patient who had Parkinson's disease, a malady in which the patient cannot move because of the failure of the neurons in the brain's core. Unbelievably, the patient's doctor found an effective cure for her, music. The patient responded to music and her brain waves turned to be normal. The doctor later discovered that Parkinson's patients responded to music in a similar way. Jourdain (2002) concludes that music might serve as a regulator of the brain activities putting the anticipations into action.

Another study showing the merits of using music examined the music and language abilities of a group of children with Williams syndromes (WS) in comparison to the normal children. The children with WS scored better on verbal tasks (receptive vocabulary and comprehension) and compared to normal children they enjoyed music more and had stronger feelings and liking towards music (Don *et al*, 1999). Since children with WS are known to be skilled at verbal expressions (Don *et al*, 1999), it can be inferred from the study that people with verbal skills might have a tendency towards music which may lead them to ease their learning on verbal tasks.

Conclusion

These theoretical and experimental findings might suggest that music and language are correlated and language can improve higher with the help of other resulting in the activation of the brain. Music might contain ample materials for improving speech and language in a holistic manner. From the very early age, people learn how to speak and sing at the same time. It is a well-known fact that communication is derived from speech and songs. Speaking and singing are embedded in music, and it might very facilitate verbal expression (Thaut, 2005).

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