

The Relationship Between Music and Language

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ABSTRACT

Language and music together form humanity's vocal communication system. Not only do they share common roots, but they also exhibit numerous similarities in form, meaning, and function, creating a mutually influential and complementary relationship. This symbiotic connection can be widely applied in fields such as songwriting, language teaching, and medical rehabilitation, playing a positive role in people's lives.

KEYWORDS

Music; Language; Relationship studies

1 Introduction

The study of the relationship between language and music is an ancient subject. As early as ancient Greece, the great philosopher Plato noted that certain musical forms could uplift the spirit due to their similarity to the intonations of famous orators. Since then, scholars in linguistics, musicology, anthropology, sociology, and other fields have engaged in related discussions, identifying various connections between language and music, yet failing to accurately summarize their relationship.

2 The relationship between music and language

2.1 Language and music share a common origin and coexist

How did language and music originate? French Enlightenment thinker Rousseau believed that the first utterance was also the first song, asserting that poetry, language, and music emerged simultaneously. British sociologist Herbert Spencer proposed that music originated from language, arguing it evolved from the emotionally expressive intonations of speech through the rhythmic cadences and exaggerated features of verbal expression. Meanwhile, biologist Charles Darwin suggested from an evolutionary perspective that a form of communication bridging modern language and music might represent the origin of human communicative abilities. Because the sound forms of language and music are fleeting, no written records existed for a long time after their emergence, leaving no "fossils" for study. Though we cannot precisely determine when or how language and music originated, their close relationship has been a widely accepted view among scholars for centuries ^[1].

2.2 Formal similarity

Language and music belong to symbolic systems, possessing the external form of symbols—that is, the manifestation of sound. The forms of language and music are similar, even highly overlapping, which is why people initially explored their relationship. Both musical tones and speech sounds possess pitch, duration, intensity, and timbre. These sonic elements combine to form rhythm and melody, continuously unfolding along the temporal axis. Rhythm denotes a uniform and regular progression. Musical rhythm typically involves intervals of equal duration and varying intensity, while linguistic rhythm is more complex, incorporating not only duration and intensity but also contrasting elements like the alternation of timbres. Melody describes the movement of musical pitch, whereas linguistic melody manifests as variations in pitch and tone. Rhythm and melody are readily perceived by humans and exhibit significant cultural differences. Music educator Yang Yinliu noted that all music is most intimately connected to the language of its country or region. Professor Du Yaxiong of the Central Conservatory of Music also demonstrated language's influence on music from four perspectives: phonemes, syllables, words, and sentences. Some foreign scholars attribute this to people internalizing the sound forms of language and expressing these forms in their musical creations. In the history of music development, vocal music preceded instrumental music, and singing preceded instrumental performance. Linguistic structures influence musical composition—for example, the simple syllable structure of Chinese allows for flexible combinations of long and short syllables, resulting in relatively free musical rhythms. Therefore, it is unsurprising that the linguistic families of the world exhibit striking similarities in musical styles and characteristics.

2.3 Complementarity in meaning

As symbolic systems, language and music convey meaning through sound. The meaning of language is relatively straightforward to grasp—it serves as humanity's most vital tool for communication, with its signifier and signified established by convention, enabling fairly precise expression of thoughts and emotions. Even when words fall short of fully capturing meaning or contain unintended implications, this does not hinder normal communication within the same culture, and languages across different cultures can still be translated. The meaning of music, however, is more ambiguous, with greater uncertainty surrounding its signifier and signified. Attempting to translate music into language, or one musical form into another while preserving the original meaning entirely, is nothing short of a pipe dream. Yet music seems to facilitate cross-cultural communication more readily than language. People may not understand a foreign language but can still appreciate foreign music and feel its joys and sorrows. This is because both language and music possess rational and emotional meanings. When processing linguistic information, people prioritize the rational meaning linked to concepts, judgments, and reasoning, while vocal expressions like tone, intonation, and cadence merely reinforce the emotional meaning. When processing musical information, however, people focus more on the emotional meaning associated with mood, attitude, and style. The rational meaning the creator intends to convey must be supplemented through imagination. Not everyone can be like Zhong Ziqi, who could discern the specific scene of towering mountains and flowing water from Yu Boya's qin music. The differing emphases of language and music in conveying meaning grant them distinct social functions. For instance, language can transmit information more explicitly, while music conveys emotion without barriers; language can hone logical thinking skills, while music better unleashes imagination and creativity... More often than not, the fusion of language and music enables a more comprehensive expression of meaning.

It follows that language and music share a common origin and have coevolved throughout subsequent developmental stages. No human society has ever possessed language alone or music alone; both have always coexisted. They exhibit similar forms and influence each other, jointly fulfilling certain social functions while complementing one another with distinct emphases. This relationship mirrors the symbiotic connections observed in biology and can be broadly applied across multiple fields ^[2].

3 Applications of the relationship between music and language

3.1 The field of songwriting

The earliest sounds uttered by humans resembled singing. Songs are essentially elongated speech—a fusion of music and language—a means of expressing emotion more powerfully than ordinary words. In ancient times, poetry and music were inseparable. Songs were often spontaneous creations born from emotion, with the lyricist, composer, and performer typically being one and the same. Later, poetry and music diverged. While the creation of lyrics and melodies in songs became sequential, they have always been mutually dependent and influenced each other. Modern songwriting also commonly employs these two approaches: First, setting lyrics to music—where the words come first and the melody follows. This is the most widely used method; The second involves composing lyrics to fit an existing melody, a more challenging and less common approach. Throughout the centuries, regardless of how song forms evolved, melodies and lyrics always maintained a harmonious unity. Classic folk songs achieved widespread acceptance and enduring popularity precisely because their lyrics employed colloquial, accessible language, and their melodies developed the words rather than exaggerating, distorting, or detaching from them. However, with the advent of popular music and the accelerated pace of songwriting, melodies and lyrics have increasingly become two seemingly unrelated art forms, only later awkwardly “glued” together. The lack of communication between lyricists, composers, and performers leads to excessive word reversals and awkward pauses during singing—elements that violate the natural relationship between language and music. This explains why some pop songs enjoy fleeting popularity before fading into obscurity. From their very origins, human language and music have coexisted and evolved together, particularly within the art form of song. An outstanding song must undergo rigorous refinement, pursuing not only melodic beauty but also seamless integration with lyrics. It must convey the lyrics' content, emotion, and imagery with precision and vividness, striving to align the rhythm, melody, and tone of the music with the rhythm, intonation, and pitch of the words ^[3].

3.2 Language teaching field

Whether in native language instruction or second language teaching, incorporating music into the classroom is hardly novel. However, researchers typically focus on music's role in sparking student interest and energizing the classroom atmosphere, often overlooking the relationship between language and music in acquisition. From the moment of birth, parents sing lullabies to their infants—a fusion of language and music. Adults employ “infantile language,” characterized by simple structures, exaggerated intonation, and high repetition, embodying many musical traits. This serves as the most

crucial linguistic input during early language acquisition. In response, infants express their needs through song-like vocalizations during the pre-linguistic stage, a phenomenon particularly pronounced in their first year of life. As children develop, they begin acquiring linguistic and cultural knowledge through musical forms like nursery rhymes. By age five, children's language abilities are largely formed, indistinguishable in essence from those of adults. They then begin learning their native language in formal classrooms, further developing reading and writing skills. Thus, music plays an immeasurable and natural role in native language acquisition. Similarly, music can yield comparable effects in second language learning. For instance, the characteristics of popular songs resemble those of infant language, providing valuable linguistic input for learners. These songs linger in the mind, ensuring repeated and enduring exposure to their lyrics.

Music fulfills numerous elements in second language acquisition. Beyond providing ideal language input material, its beautiful melodies and rich connotations can reduce emotional filtering and enhance learners' motivation. The repetitive, multi-channel nature of language input improves linguistic memory. When learners boldly sing and express themselves, this form of language output can enhance second language acquisition outcomes. Empirical studies further demonstrate that music effectively promotes learners' acquisition of linguistic elements and enhances language proficiency ^[4].

Regarding the use of music in language teaching, native language instruction has long employed the "sing-play" approach, integrating singing with play, songs with performance, and music with movement. In second language pedagogy, the subliminal method requires teachers to explain texts accompanied by classical music, which facilitates listeners' absorption and comprehension of linguistic material. More educators advocate using music as teaching material, incorporating phonetics, vocabulary, grammar, and cultural elements from song lyrics into instruction. Through engaging classroom activities, this approach promotes language acquisition. In fact, leveraging music's role in language learning extends beyond classroom time—students can also learn through listening to and singing songs outside of class ^[5].

4 Medical rehabilitation field

The human brain is a complex and sophisticated instrument, yet it remains shrouded in mystery like a "black box," obscuring the precise mechanisms of thought processes. It was once believed that the left and right hemispheres had distinct functions: the left brain governed rigorous logical thinking, including language activities, while the right brain managed open-ended visual thinking, such as processing musical events. However, with advances in clinical medicine and the emergence of cognitive science, increasing research reveals that the processing of language and music is intricate. Aphasia and amusia can occur simultaneously in some patients, but in most cases, they exist independently. This suggests that the regions processing language and music are both distinct and extensively interconnected. American neuroscientist and President of the Society for Music Perception and Cognition, Patel, has also proposed that language and music share cognitive resources in syntactic processing. More intuitive imaging observations reveal overlapping brain activity between language and music processing. At lower-level processing stages, language and music may share a common neural foundation; whereas at higher-level processing stages, they increasingly exhibit distinct characteristics.

Given the numerous shared characteristics between language and music, they inevitably share certain brain regions for cognitive processing. These regions serve as the cognitive "interface" between music and language: when language abilities are impaired, music training can compensate; when musical abilities are lost, language training can also make up for the deficiency. This represents the symbiotic relationship between language and music in terms of cognitive resources. In the medical field, some practitioners have already incorporated music into treatment plans for aphasia, assigning patients activities such as singing, playing instruments, and listening to music. These music therapies have been shown to significantly promote the recovery of patients' language abilities and provide emotional support. However, research integrating language into amusia treatment remains extremely scarce. This imbalance in resource utilization stems from two factors: compared to language abilities, impairments in musical abilities are less readily detectable; moreover, even individuals who are "tone-deaf" or entirely lacking musical ability can still engage in normal communication. In reality, the pitch perception impairment in alexia patients has already impacted their speech processing to some extent, particularly for native speakers of tonal languages. These studies collectively demonstrate both the necessity and feasibility of employing language therapy to address musical disorders.

For individuals with normal brain development, training in language and music also promotes the development of their brain regions. Empirical studies abroad have demonstrated that individuals with musical training outperform those without such training in areas such as speech perception, reading skills, writing skills, vocabulary memory, and language expression. There is a clear correlation between musical ability and linguistic ability; individuals with strong musical skills often exhibit superior proficiency in either their native language or a second language.

5 Conclusion

As two distinct vocal communication tools unique to humanity, language and music share intricate connections. In-depth research into their relationship facilitates viewing issues from diverse perspectives, thereby providing clearer insights into the characteristics of either music or language. This paper argues that language and music share a symbiotic relationship of mutual dependence and influence, applicable across multiple domains of social life. However, domestic research in this area remains limited, with insufficient adoption of cutting-edge methodologies and tools. Since 2007, Europe has hosted a series of international conferences centered on “Language, Music, and Cognition”; similarly, the United States established the Society for Music Perception and Cognition, producing substantial research annually. These developments indicate that studying the relationship between language and music has become an established field in certain disciplines. While China should draw upon advanced international concepts and findings, its research on the language-music relationship must be grounded in the essential characteristics of the Chinese language and Chinese music. After all, Chinese song composition differs from that of other countries in its treatment of tones and melodies, and Chinese language teaching differs from the teaching of languages such as English or Japanese ^[5].

About the Author

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