

The Emotional and Behavioral Impact of Music Level: Fundamental Research

Zoltan Szigeti

Assoc. Professor Yunnan Normal University
School of Music and Dance
Kunming 650000
China

Abstract: -Why are some sounds regarded as 'noise' while others are experienced as music? When we perform or listen to music, what occurs at the level of the sound wave, the ear, and the brain? How do musical abilities emerge, develop, and refine as one gains experience with music? What gives the music such a strong emotional impact and the ability to influence social behavior in so many different cultural contexts? These are a several of the frequent questions that define the field of "music psychology".

In this essay, a comprehensive overview of classic and contemporary studies in music psychology will be presented, as well as critical critiques of existing research focusing on melody, rhythm, and formal structure perception and cognition, as well as the origin and development of musical talents, before moving on to the most practical components of music psychology: gender in music, customers behavior, the emotional power of music. I sincerely believe that my work may contribute to a broader discussion of music's meaning in terms of its social, emotional, philosophical, and cultural relevance.

I. INTRODUCTION

People have always chosen specific sound patterns for special attention all around the world and for which we have records. Some of these patterns are what we refer to as 'music.' What distinguishes the sound patterns that we identify as music? What is it about these sound patterns that has such a profound meaning for humans? All audible noises begin with energy propagation into the environment. It may be a gentle breeze rustling a thousand fluttering leaves, the plucking of harp strings, or the thud of a bass drum. What makes some air molecule dances 'musical,' whereas other air molecule disturbances appear to produce only sounds? Or is it the noise?

A symphonic orchestra concert is a music. Music festivals are music as well. Advertising jingles are musical creations. Many people consider church bells, which ring out a basic tune, to be music. Not every sound, however, is music. Could we come up with a comparable list of noises that everyone agrees aren't music? A sound pattern that is indicative of non-music may be the roar of a road drill or the sound of a tractor. The bubbling of a dishwasher or the screech of vacuum cleaner may strike us as apparent examples of non-music.

What about the sound of the waves crashing on the shore? Is that a wolf howl? Or perhaps a bird's song?

While the extremes appear to be well defined, there is no obvious distinction between music and noises that are not music. Though we can fairly clearly distinguish between prototypical situations of music and non-music, there are many sound patterns that are difficult to categorize as one or the other.

Music definitions that are all-encompassing may be difficult to come by. Despite the hazy borders of the realm of music, it appears that there are auditory occurrences that we can all agree constitute music, and that have been agreed upon in various cultures and historical periods. Humans are the ones who create and perceive music. Performers must master the abilities required to produce organized sounds in meaningful patterns. Listeners must learn to perceive such qualities of organized sound patterns as music through experience or education. A comprehensive examination of all of these talents, as different as they are, is certainly needed. The fusion of psychology and music pave the way for such investigations and opens up options for research into a wide range of themes. Newcomers are sometimes taken aback by the breadth and depth of this vast discipline. The psychology of music in the twenty- first century is preoccupied with several issues. It is concerned, along with other things, with how people perceive, responds to, and produce music, also, how they incorporate it into their lives. These themes include everything from how the ear determines a tone's pitch to how music is used to express or change moods. Though cognitive psychology is heavily used in this discipline, it also draws on many other schools of psychology, sensation and perception, neuropsychology, developmental psychology, social psychology, and practical subjects such as classroom management are all examples of psychology.

Not only psychologists and musicians are drawn to music psychology, but also scientists and researchers from a variety of fields. Perspectives from acoustics, neurology, musicology, education, philosophy, and ethnomusicology are also included in this collection. Musical performance necessitates the development of a complex set of abilities and a developing body of knowledge that allows for sensitive musical interpretation. A composition must first be created before it can be performed. This, too, necessitates a complex set of abilities. Then

there's improvisation as a creative endeavor; Western jazz and Indian classical movement performances are famous examples. Innovative music education techniques presume that all children are musical and immerse young children in creative and sensitive musical interaction with the goal of building the foundations for a lifetime of musicality.

Moreover, because music is divided into many diverse musical cultures across the world, an anthropological approach that emphasizes the study of different human civilizations and their music is also helpful in understanding the psychology of music. Finding out what is universal across all musical cultures and what appears to be distinctive to each one sheds a lot of insight on psychological issues. These investigations aid in distinguishing between cultural sources of musical repertoire characteristics and those that may arise from the biological underpinnings of musical perception.

II. MUSIC AND GENDER

The widespread categorization of instruments and performance genres as male or female-appropriate has been recorded by anthropologists and historians. Koskoff (1995), for example, demonstrates that while gender stereotyping in music took different forms in different societies at different eras, its consequences are pervasive. Ideas concerning gender-appropriate instrument choice and manner of performance have been particularly prominent on occasions for courting and ritual.

The Ga people of Ghana have funeral rites that require specific types of songs to be sung solely by women. Only women (and children) in Afghanistan play a popular instrument known as the 'chang' (a mouth harp). Steblin (1995, p. 144), in a historical study of musical stereotyping in Western Europe, alludes to the middle-class tradition of perceiving the virginal and piano as the most acceptable instruments for 'young girls' because they could be performed to small groups of friends and family within the home. Prior to the mid-nineteenth century, it was considered impolite for women to perform in public, and most orchestras refused to recruit women (O'Neill, 1997).

By the time youngsters take their first music lessons, gender prejudices about music have already emerged. Music is typically stereotyped as a more 'feminine' topic, with significantly more girls than males taking music classes and participating in musical events during their school years. Furthermore, children's instrument selections are limited by what they consider to be gender appropriate. Many studies have consistently shown that Western school-age children consider flutes, violins, and clarinets to be appropriate instruments for girls to play, while drums, trumpets, and guitars are considered to be appropriate instruments for boys (e.g., O'Neill & Boulton, 1996, who studied 9- to 11-year-old English children, the similar conclusions were shown in young kids).

Some studies have found that by providing instances of gender and instrument mismatches that conform to popular expectations, children's opinions shift - however, the impacts are minor and not necessarily in the desired direction. For example, Harrison and O'Neill (2000) showed live counter-gender-stereotyped figures to youngsters and found at least a modest shift in indicated preferences for gender-specific instrument assignments among both girls and boys. This strategy, on the other hand, appears to lower preference for instruments considered to be gender-appropriate in the past (For example, after viewing a male pianist, females expressed a lower preference for the piano, while boys expressed a lower choice for the guitar after watching a female guitarist). Another Australian study that employed video presentations and counter-stereotypical drawings discovered that girls were more likely than boys to experiment with non-traditional player and instrument combinations (Pickering and Repacholi, 2001).

The number of female musicians in professional bands and orchestras is growing, and the instruments they play are diverse. However, this may be more true of classical music ensembles, whereas gender equality in other genres, such as jazz, has a long way to go. McKeage (2004), for example, revealed that in a study of over 600 students, substantially fewer girls than men are active in performing jazz in high school or college. In addition, despite the fact that 62% of guys who played jazz in high school continued to play in college, just 26% of females who played jazz in high school did so. Female jazz musicians, in particular, lacked confidence in their ability to improvise.

Wehr- Flowers (2006) discovered that girls in jazz ensembles were significantly less confident, nervous and had a poorer feeling of self-efficacy in jazz improvisation than men, using a scale that assesses attitudes toward mathematics. Wehr-Flowers says that while most studies have not identified substantial differences in male and female jazz improvisation talents, "we must therefore seek to alternate causes for the gender imbalance in the jazz sector". Females may not be socialized to feel as comfortable as males in participating in jazz rituals such as showing off one's chops,' and there is an insufficient social framework to support females because the networks through which one obtains informal jazz technique training and advances one's career are predominantly male (McKeage, 2004).

Music composition is one area of music where women are noticeably underrepresented. According to research using the 'Goldberg paradigm,' social perception may have a part in the tiny proportion of females deemed to be prominent composers in various genres of music (Colley, North, & Hargreaves, 2003). This strategy was first used in a famous 1968 research by Goldberg, which found that journal publications credited to John McKay were rated more positively than those ascribed to Joan McKay in diverse domains of competence.

Contemporary music compositions were played to 64 undergrads who rated them on a set of rating scales in Colley's study in 2005, which extended the approach to the musical realm.

III. CONSUMER BEHAVIOR AND SOCIAL FORCE OF MUSIC

Kurt Lewin, a pioneering social psychologist, stated years ago that one's social circumstances have a significant effect on directing conduct. Though, as previously said, this viewpoint has shifted in recent years, there are compelling claims that music has such a function. These ideas may be traced all the way back to Plato, who claimed that different musical modes might cause different forms of conduct.

Empirical evidence suggests that music may have a significant influence on conduct and that, unlike more explicit types of persuasion such as verbal messaging, it can happen without people being aware that music is driving their behavior. This remark was stated in research by North and colleagues in the field of consumer behavior (North, Hargreaves, & McKendrick, 1997). Music those evoked connections with either France (e.g., a soulful accordion piece) or Germany

(e.g., a soulful accordion piece) played in the background while shoppers meandered around a grocery store (e.g., brass-laden Bierkeller music). The researchers monitored customers as they passed through a wine aisle. Despite the fact that most buyers were unaware of the music, shoppers' wine tastes went toward the nation represented by the music! As a result, music's influence on behavior can be significant and even subconscious.

A number of additional studies have indicated that music has a significant impact on people's mood and behavior in a variety of commercial and industrial environments. In a university cafeteria, for example, North and Hargreaves (1998) played pop music, classical music, easy listening music, or no sound. Customers described the cafeteria as 'fun' and 'upbeat' when there was pop music playing, 'sophisticated' and 'upmarket' when there was classical music playing, and 'cheap' and 'down market' when there was easy listening music playing. Customers were also willing to spend more money more for a list of 14 goods sold in the cafeteria while popular music was playing than when no music or easy listening music was playing, and they were willing to spend the greatest money on the same things when classical music was playing. Another experiment conducted at a university cafeteria found that music can influence consumers' activity rates.

When there was no music playing, diners took 3.23 bites per minute, 3.83 bites per minute when slow music was playing, and 4.4 bites per minute when rapid music was playing (Roballey et al., 1985).

Music's position as a social force might be portrayed in a negative light by research like the ones mentioned above. In this regard, it's important to note that people appear to utilize music in this manner of their own volition. The so-called 'experience sampling approach' was used to track the uses and functions of music in everyday life in large research conducted in the United Kingdom (see Sloboda & O'Neill, 2001 for a summary). People would be required to carry an electronic pager with them throughout the day. Participants would be instructed to note down if the music was playing, what sort of music was playing, why it was playing, and other details when the pager sounded (which would happen at random intervals). The results of this experiment, on the whole, support the assumption that music is employed in a similar way in everyday life as it is in a film soundtrack (see chapter 14 for a discussion of the role of music in film). That is, individuals utilize music throughout the day to alter their emotions and behavior - a conclusion that has been supported in interviews with people on their usage of music (e.g., DeNora, 2001). Music soothes us when we are unhappy, energizes us when we need to be active, and distracts us from tedious jobs, among other things. For the most part, music is a societal force that we freely embrace.

IV. THE EMOTIONAL POWER OF MUSIC

In movies, music has always played a vital part. Even's silent' pictures were hardly quiet; before sound films, live musicians' music covered the sound of loud projectors and agitated spectators and generally underlined the general atmosphere and movements depicted on screen. The soundtrack has been more significant in adding to the immersive quality of movies since the debut of sound films in the 1920s. Film sound, like film pictures, is not contained in a flat, two-dimensional screen of a predetermined size (Chion, 1994).

As a result, sound adds a "third dimension" to the cinema experience by immersing the viewer in a "sonority envelope." The audience looks at a rectangular screen to which they devote the most of their attention; they are still surrounded by sound on every sides. As spectators, we hear menacing heavy breathing and accelerated footsteps following directly behind us, as the noise of rain showers envelop us on all sides while witnessing a figure retreat from imminent harm amid a severe rainstorm. As a result, rather of being a spectator, sound positions the viewer at the center of the experience.

Various soundtracks may lead to different assumptions about more nuanced features within this working narrative, such as a character's objectives or the nature of a character's connection (e.g., Boltz, 2001; Bullerjahn & Gldenring, 1994). Participants in Boltz's (2001) study were more likely to describe the interaction between two characters in a scenario as harmonious or romantic when the scene was accompanied by music expressing a 'positive' mood. Participants who saw the

identical scenario with music that conveyed a 'negative' tone were more inclined to believe that one actor would injure the other. When the scene was accompanied by positive music, more positive personality descriptions were ascribed to the male character (e.g., kind, loving, protective), whereas when the scene was accompanied by negative music, more negative personality descriptions were ascribed to the male character (e.g., deranged, evil, manipulative). Studies on the influence of diverse musical soundtracks on the interpretation of animal behavior (Bolivar et al., 1994, described previously) and even the qualities of geometric forms (Marshall & Cohen, 1998) in short videos have given similar results.

While several studies have demonstrated that adjusting the soundtrack may change how people perceive on-screen pictures, more modest soundtrack modifications can also have unexpected results. Tan, Spackman, and Wakefield (2008), for example, looked at the differences between dietetically and non-dietetically presenting the identical piece of music. 'All that belongs... to the world postulated or presented by the film's narrative,' says the diegesis (Souriau, quoted in Gorbman, 1987). Rapid music soundtrack for a vehicle pursuit would be nondiegetic, but a jukebox playing in the background during a bar fight would be diegetic because it is meant to exist within the imaginary universe inhabited by the characters.

In certain circumstances, music can transmit emotional content that isn't visible on the screen. Past and future occurrences, for example, can be conveyed in cinema through the use of leitmotifs, a term adopted from Wagner's operas that refers to a recurrent theme that comes to symbolize a character, idea, or event throughout a work by association. John Williams' original soundtrack for Star Wars (Lucas, 1977), a picture that has been properly described as an epic space opera,' exemplifies the skilled usage of leitmotifs. Darth Vader, Luke Skywalker, Princess Leia Organa, and Obi-Wan Kenobi, among others, have their own leitmotifs that are introduced and skillfully interwoven into the rich orchestral soundtrack, frequently at emotional high points. Young Luke, for example, sees the double sunset of Tatooine in one scene. In the words of composer John Williams, "the subject of emotional transmission is a major concern for those interested in cross-cultural distinctions linked to music." If music is claimed to have "meaning," part of that meaning is the communication of emotion, as previously noted. One of the authors (PQP) recalls seeing Kaige Chen's film *Farewell My Concubine* as one of his earliest exposures to Chinese opera (1993). This video concentrates on a certain moment that is replayed numerous times (from an opera of the same name). During the initial presentation, it sounded peculiar to the author — entertaining but without transmitting any distinct emotional message. However, towards the conclusion of the movie, the music had grown more recognizable.

The emotional outlines of the sequence grew clearer as a result of this familiarity, and the sad message of the sequence emerged. It's reasonable to believe that regular exposure is required to comprehend emotional communication from any 'foreign' culture.

Is that the case? In fact, research reveals that even after the first exposure, listeners can recognize the emotion being expressed in music from a foreign culture, even if they are not as moved inwardly by that song as a listener who is more familiar with that music. Balkwill and Thompson (1999) discovered that listeners from North America could identify the intended emotions in Hindustani rags based mostly on features of musical structure that are not peculiar to that cultural system, such as pace and pitch range, discovered that if recordings featured a certain timbral cue, Western listeners perceived the emotional purpose of Russian laments as more mournful and internally cohesive.

The timbral cue in this example was a 'gasping' sound made when the lamenter inhaled deeply (an exaggerated and sustained bout of inspiration). Long falling phrases describe laments, in which the vocalist communicates her intense sadness.

Although the manner of musical representation differs widely between cultures (for example, tonal structure and rhythmic rhythms), there appears to be a common set of emotional archetypes to examine. Daniel Levitin's latest book, *The World in Six Songs*, makes a compelling case for this viewpoint (2008). All civilizations, according to Levitin, have generated songs that reflect key shared feelings such as friendship, joy, comfort, wisdom, religion, and love.

Music is fascinating in part because it is culturally distinct while still being universal. The meaning of music is both confined by and extended across civilizations. A linguistic contrast is instructive. Linguists often think that the world's languages are various specialized representations of a shared core of more basic principles, similar to how musicologists believe. Music, on the other hand, differs from language in that the meaning of a foreign language is largely opaque to non-native speakers. Research suggests, on the other hand, that music can transmit its intent to the unschooled listener. At the same time, the purpose of music isn't set in stone. Finally, it's possible that music unites people more effectively than language while also serving as a medium for cultural variation in the same way that language does.

V. CONCLUSIONS

What conclusions can we draw from the existing studies? Clearly, it is far too early to say whether musical sound importance is a result of culturally taught standards or universally shared brain and cognitive processes. Music is almost certainly the outcome of interactions between culturally unique and universal components. Exploring the manifestation of universal

traits in diverse cultures is the most exciting study path to take.

Although generalizations from present research may be premature, several fascinating possibilities for future study might be generated. First, it appears that cultures contain similar 'core' characteristics but that these fundamental characteristics are embellished in ways that appeal to diverse audiences. As a result, musical complexity is the greatest place to look for cultural distinctiveness. Second, according to some of the studies described above, the temporal domain of music has more 'universal' qualities than the pitch domain. Finally, it appears that there are cultural disparities between 'art' music and 'folk' (or 'popular') music when it comes to performance. Furthermore, cross-cultural comparisons should be careful not to mix the terms "culture" and "musical style" (e.g., classical versus popular). These concepts are, of course, speculative and illustrative rather than definitive. As we said earlier, cross-cultural attention is a 'growing' field in music psychology, and while it is progressing quickly, we still have a long way to go. We have purposefully utilized this chapter on culture and music as the book's last debate. In our perspective, music psychology encompasses the full range of musical experience, from the physical vibrations of sound to the sort of profound meaning that drives people to dedicate so much time, money, and emotional energy to music and music-making. Furthermore, the universality of music throughout civilizations despite their similarities and variations – demonstrates the basic relevance of music to human life.

As a result, we'll end with a musing about music's overall relevance. It might be argued that music serves as a mirror of human experience, in the vein of Levitin's (2008) recent suggestion (and reflecting previous Socratic thought). The essence of this mirroring was mentioned before, in that music might be structurally 'isomorphic' to interior emotional experiences (Langer, 1942). Furthermore, certain parts of music might be claimed to be global to the extent that emotions are universal. Cultural differences can be compared to linguistic differences in this sense, as both are used to transmit universal concepts and sentiments. Music communicates comparable concepts through diverse tonal and rhythmic frameworks, much as languages express the same ideas with different vocabulary and grammar. The profound significance of music and the tremendous delight it has brought people throughout history is very definitely due to music's ability to convey the complexities and depths of human life.

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