Studies

Psychological Factors of Preference for Academic Music

DORINA IUȘCĂ, Associate Prof. PhD "George Enescu" National University of Arts from Iasi ROMANIA*

Abstract: The willingness to listen to a new musical work is an important element for the artistic culture development, especially during school years. This topic has been at the center of concerns of specialists both in the field of education and in that of psychology. Thus, in the 90s, Albert LeBlanc scientifically demonstrated the theory of musical openness, using a group of 2262 subjects, measuring exactly how receptivity to an unfamiliar work depends on age and musical style. Thus, he highlighted that the highest level of openness is found before the age of 8 and in young adults, while the lowest level is found in adolescence and old age. The rise and fall of musical openness has been shown for fragments of academic music, jazz and rock. His discoveries were the starting point for a multitude of experiments that have extended to the present day, confirming and customizing LeBlanc's theory, taking into account the socio-cultural environment, musical experience, educational strategies and other elements of musical discourse. The present analysis represents a review of the most important studies carried out in this research direction. The interpretation of the results sheds light on a series of educational implications, as well as ways to promote academic musical performances among young people.

Keywords: musical preference, open-earedness theory, age, music listening, teenagers.

1. Introduction

One of the essential purposes of music education is the development of a vast musical culture based on the acquisition of aesthetic taste for valuable works from academic music. Teachers aim for their students to develop musical preferences for works whose complexity will train the development of intellectual processes and outline the profile of a person with refinement and artistic sensitivity. In order to achieve this goal, music teachers have created specific methodologies centered on musical audition, putting into practice various training strategies. A decisive step towards success in the mentioned direction was achieved by means of a discovery in the field of social psychology of music, to which the names of two important researchers are linked: British researcher David Hargreaves and American researcher Albert LeBlanc.

In 1950, Paul Farnsworth (LeBlanc et al., 1996) observed an interesting connection between musical taste and age, experimentally highlighting two

^{*} dorinaiusca@yahoo.com

aspects: with increasing age people tend to prefer music recommended by experts, and also to narrow their musical preferences to an increasingly limited repertoire, being less open to unfamiliar musical expressions.

2. The open-earedness theory

After 1980, following Farnsworth's idea, David Hargreaves initiated a series of experiments (Hargreaves, 1982; Hargreaves & North, 1997, *apud* Kopiez & Lehmann, 2008; Hargreaves, Comber & Colley, 1995; Hargreaves, Marshall & North, 2003) intended to establish a coherent link between the openness to "unconventional" music and the various age stages of the subjects, finally outlining a theoretical model still at the hypothesis level and entitled "open-earedness hypothesis".

The basic idea introduced by Hargreaves was that younger children tend to be "more open to musical expressions considered by adults to be unconventional; their aesthetic responses appear to show less signs of enculturation towards certain standards of "good taste" compared to older subjects" (Hargreaves, 1982, *apud* LeBlanc *et al.*, 1996, p. 50). Hargreaves' studies, however, stopped at the teenage years, failing to explore the openness to unconventional music among adults and the elderly.

A complete description of the theory of musical openness was made by Albert LeBlanc in a famous study, widely cited in the literature (LeBlanc, 1980). The article presents a theoretical synthesis and statistical meta-analysis of 41 previous experimental studies on tolerance to unfamiliar music. LeBlanc's conclusions were summarized in four main directions that build the theory of musical openness:

- a) children younger than 8 years old are willing to like a wide range of styles, being musically open;
- b) as they progress towards adolescence, there is a decline in musical openness; the variety of accepted styles decreases, giving way to a preference for popular music styles, especially pop and rock;
- c) towards the end of adolescence, tolerance towards unfamiliar music increases again;
- d) towards adulthood, musical openness decreases progressively once again.

LeBlanc's theory has repeatedly been confirmed through empirical research. Until now there is no study that contradicts it, the consensus of specialists being unanimous in this direction.

LeBlanc's (1996) experiment was conducted with the participation of 2262 subjects aged between 6 and 91 years. The research group was divided into 14 groups, being distributed by school classes. Thus, he had 150 subjects for each class (from the 1st to the 12th grade), plus two more categories: 150 students (with an average age of 20 years) and another 158 adults (equally distributed

across the ages of 20 and 91, with a mean age of 44). All participants were American.

The experimental procedure included listening to 18 pieces of music and immediately scoring the preference for each of them by circling the corresponding number on a five-point Likert scale, where 1=*I don't like it* at all and 5=*I like it very much*. The stimuli included fragments from 3 musical styles: academic music, jazz, and rock.

To avoid the effect of *tempo* on musical preferences, the excerpts were selected to illustrate 3 different tempos: slow (98.5 beats per minute), moderate (98.7 beats per minute) and fast (100.3 beats per minute). Researchers used 2 musical fragments for each *tempo*.

Instrumental pieces were chosen for academic music, knowing that they are more popular. Rock and jazz music balanced vocal and instrumental expression. The duration of the musical fragments took into account the length of a musical phrase, the average time of the musical stimuli being 33 seconds. The total duration of the music audition was 22 minutes. The choice of short fragments was conditioned by the maintenance of attention to the musical stimuli by very young or very old people. The fragments were presented randomly to the participants.

To confirm that the preference for each musical style meets the conditions of rating the same type of stimulus, Cronbach's alpha internal consistency coefficient was calculated considering responses for songs within a style. Thus, obtaining coefficients over 0.70 (0.87 for academic music, 0.86 for jazz and 0.79 for rock), the author demonstrated that each piece is representative of the musical style in which it was placed. In the table below you can find the list of the 18 musical fragments:

No.	Title / Composer	Performer (Conductor)	Style
1	In the hall of the mountain king	Philadelphia Orchestra /	academic
	from <i>Peer Gynt</i> , suite no. 1 /	Eugene Ormandy	
	Edvard Grieg		
2	Ain't Misbehavin'	Fats Waller (vocal)	jazz
3	A Winter Shade of Pale	Procol Harum	rock
4	Brandenburg concerto, no. 2,	Bath Festival Chamber	academic
	Allegro / Johann Sebastian Bach	Orchestra / Yehudi Menuhin	
5	St. James Infirmary	Jack Teagarden (instrumental)	jazz
6	Love Street	The Doors	rock
7	Slavonic dance, op. 46, no. 2 /	Czech Philharmonic /	academic
	Antonín Dvořák	Vaclav Talich	
8	Bourbon Street Parade	Louis Armstrong (vocal)	jazz
9	Magic Man	Heart	rock
10	Mr. Tambourine Man	The Byrds	rock
11	Ain't Misbehavin'	Fats Waller (instrumental)	jazz
12	Haffner Serenade, K. 250, Adagio /	Württemberg State Orchestra /	academic
	Wolfgang Amadeus Mozart	Ferdinand Leitner	

13	White Rabbit	Jefferson Airplane	rock
14	Bourbon Street Parade	Louis Armstrong (instrumental)	jazz
15	Simfony no. 5, op. 47, Moderato / Dimitri Shostakovitch	New York Philharmonic / Leonard Bernstein	academic
16	Turn the Page	Bob Serger and the Silver Bullet Band	rock
17	St. James Infirmary	Jack Teagarden (vocal)	jazz
18	Viennese Musical Clock /	Philadelphia Orchestra /	academic
	Zoltán Kodály	Eugene Ormandy	

Table 1 The list of 18 music examples used by de LeBlanc and coleagues in their experiment (LeBlanc *et al.*, 1996, pp. 52-53)

Results illustrated in figure 1 revealed significant differences regarding musical openness at various age stages. On the one hand, we can see that the periods with the greatest sensitivity for all 3 investigated musical styles are around the age of 6-7 years (1st grade) and 19-20 years (12th grade and college students). Music preferences decrease monotonically throughout primary school years and reach a critical threshold in the secondary school cycle. At the same time, after college, low levels of open-earedness occur as one advances in age.

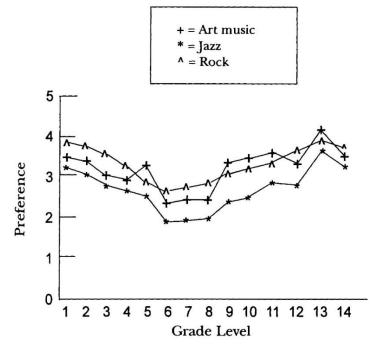


Fig. 1 Music preference for each grade level (LeBlanc, et al., 1996, p. 56)

Figure 1 experimentally confirms the inverted bell-shaped distribution of musical openness across lifespan, with school years showing the most dramatic changes. The phenomenon has important educational implications, given the high relevance of the artistic development of students. The fact that during primary school years there is still a great openness to any of the three musical genres means that academic music can more easily fit into their musical preferences at this time. Thorough exposure to valuable works of this musical style during this period could build a lasting foundation for their musical culture.

In LeBlanc's study, there were no significant differences between the 3 musical styles regarding musical openness, although overall rock music seems to consistently score the highest, while jazz music follows a parallel path of consistently lower scores. Academic music illustrates a graph in which the preference for this musical style drops off sharply in 6th, 7th, 8th, and 9th grades.

Albert LeBlanc's theoretical model and empirical demonstration have the merit of drawing attention to a fundamental element regarding students' predisposition to broaden their musical culture: the level of auditory openness is significantly different from one class to another, and music teachers should take this into account, valuing musical audition in a different way within the didactic process specific to each stage of development.

Subsequent research has on the one hand confirmed the general direction towards which musical preferences are heading, and on the other hand has nuanced the theory of musical openness by investigating several musical styles.

Further researches aimed at explaining the increase and decrease of musical openness at various ages may take into account the social, emotional and cognitive specificity of each developmental stage.

2. Unconventionality and humor as factors in music preference

Musical openness theory highlights the existence of two moments when people's tolerance to unfamiliar music is significantly higher: during elementary school and the end of adolescence (college period). From an educational perspective, the first period is very important because it may ease students' orientation towards academic music.

In order to obtain a more detailed picture of how musical openness manifests itself during this period, Kopiez and Lehmann (2008) investigated the musical preferences of 186 students equally distributed in number across the four primary classes.

The experimental group came from two public schools in Hanover, Germany, the proportion of immigrants not exceeding 10%. The researchers did not look for the influence of demographic factors on musical openness.

The effect of four musical styles classified by Kopiez and Lehmann into two categories was analyzed: conventional (pop) and non-conventional (classical¹, ethnic and avant-garde) music. The list of musical fragments and their duration is shown in table 2:

No.	Composer / Performer / Title	Style	Duration
1	Felix Mendelssohn-Bartholdy / Simfony no. 4 (Italian),	classic ²	0:58
	op. 90, 1-st Movement Allegro vivace		
2	Hans Werner Henze / Simphony no. 3, 3-rd Movement	avant-garde	1:15
	Dansul inca		
3	Propaganda / Heaven Give Me Words	pop (1990)	1:09
4	Johann Sebastian Bach / Suita orchestrală nr. 3 în Re	classic	0:59
	major, Gavota I (BWV 1068)		
5	Giacinto Scelsi / Canti del Capricorno, nr. 1	avant-garde	1:26
6	Wolfgang Amadeus Mozart / Voi, che sapete din Nunta	classic	1:20
	lui Figaro		
7	Daniel Powter / Bad Day	pop (2005)	1:12
8	Bulgarian Voices Angelite / Dancing Voices	ethnic	1:14

Table 2 The list of musical fragments used by the two German researchers in the study of open-earedness in elementary school students (Kopiez & Lehmann, 2008, p. 126)

Although the authors state that the delimitation of styles remains an open problem, they defined as conventional music the musical style with which students in grades I-IV are most familiar, i.e. pop music, as they are exposed to it in most media contexts.

It is also worth noting that the degree of familiarity of the children in the research group with what Kopiez and Lehmann call the "classical" style was not low. The selected excerpts from Bach, Mozart and Mendelssohn are very well-known works, and there was a high chance that students will have heard them before.

That is why the two German authors calculated two rows of results, taking into account two variants:

- unconventional music (ethnic, avant-garde, classical) versus conventional music (pop)
- unconventional music (ethnic, avant-garde) versus conventional music (pop, classical)

The statistics in the two situations are similar, as they indicate a slow decrease between the 1st and the 4th grade regarding the preference for non-conventional music (see Fig. 2).

_

¹ The authors included in the generically named "classical" style both works by composers from the classical (Wolfgang Amadeus Mozart), baroque (Johann Sebastian Bach) or romantic (Felix Mendelssohn-Bartholdy) period. In this case the concept does not refer to the classical current from music history.

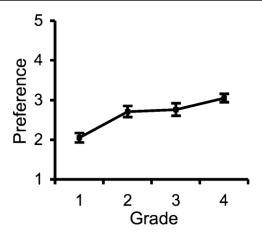


Fig. 2 Preference of elementary school students for unconventional music, where 1=*I like it very much*, iar 5=*I don't like it at all*; higher scores indicate lower preference for unconventional music (Kopiez & Lehmann, 2008, p. 127)

A decrease in musical openness is noted, more pronounced between the 1st and the 2nd grade, especially in the situation where classical music is considered as unconventional music. The results are still in the middle of the scale, which means that the changes are not spectacular. Even so, there are significant differences between the first grade and the fourth grade.

One explanatory theory of the decrease in openness to unfamiliar music sheds light on the social context of this age. It is known that between the ages of 6 and 10 there is a transition from childhood to puberty, at which point students' moral judgment shifts towards peer conventionalism (according to Lawrence Kohlberg's theory of moral judgment development). In puberty, the group of friends and what it represents (through behavior, clothing attitude, the music they listen to frequently) is of great importance to students. Therefore, it is expected that music preferences will conform to the music style most listen to on youth music chanels. A preference for unconventional music would be a departure from group behavior, so it will decrease as they approach puberty.

Intending to explain the decline in musical openness between childhood and adolescence, LeBlanc and colleagues (1992) investigated the relationship between tolerance for unconventional music and perceived humor in music. During the course of his experiments, Albert LeBlanc noticed the students' nonverbal reactions during musical auditions. He observed that certain techniques of revealing expression in music (such as vocal strumming, wide vibrato, distorted voice, use of extreme registers, pronunciation of certain unusual or onomatopoeic words, jazz improvisation on nonsense syllables, saxophone strumming, *glissando* – the trombone, the use of the mute on the trumpet) evoked amused reactions from the children.

LeBlanc had the students listen to a series of songs (funny and unfunny), asking them to indicate, on a 7-point scale, their preference for each of them, as well as how funny they thought each piece of music was. The list of songs is in table 3:

No.	Title	Performer	Level of humor
1	C'est si bon	Stan Freberg	humor
2	One Day Soon	Glenn Yarborough	non-humor
3	Ain't Gonna Bump	Joe Tex	humor
4	Gone	Ferlin Husky	non-humor
5	Choo Choo Ch' Boogie	Louis Jordan	non-humor
6	Fight Fiercely, Harvard	Tom Lehrer	humor
7	Can We Get to That	Ray Stevens	non-humor
8	Show Me	Joe Tex	non-humor
9	Cuzz You're So Sweet	Simon Crum	humor
10	Beware, Brother, Beware	Louis Jordan	humor
11	Candida	Tony Orlando and Dawn	non-humor
12	The Streak	Ray Stevens	humor

Table 3 The list of melodies used by LeBlanc and coleagues in their experiment (LeBlanc *et al*, 1992, p. 272)

The experimental group consisted of 445 students from the 3rd (average age 8.6 years), 7th (average age 12.6 years) and 11th (average age 16.6 years) grade. All subjects were Americans from the states of Michigan, Missouri, and Pennsylvania, with the gender distribution being relatively equal.

The results showed a significant relationship between music preferences and perceived humor in music, a relationship statistically demonstrated in two ways:

- significant correlations were found between perceived humor in music and musical preferences, at each age level;
- the perceived humor in music was significantly higher in the 3rd grade students, compared to those in the 7th and 11th grades, which indicates a downward curve, parallel to the one related to musical openness.

Compared to girls, boys found the songs less funny.

At the end of music listening, the students were asked to write down their opinions about the music they listened to. The content analysis of their answers revealed:

- 3rd grade students liked: the fact that the songs were fun (42%), the rhythm (6%), the lyrics (4%);
- 7th grade students appreciated: the humor (55%) which they considered an important reason for their preferences, the rhythm (6%), the lyrics (6%);

• 11th grade students appreciated: the humor (30%), the rhythm (18%), the lyrics (8%), the variety of the songs (8%).

LeBlanc's study suggests that using music listening of performances that contain certain expressive strategies (such as those listed above) that elementary and middle school students find amusing may be a factor in attracting students to music.

It should be taken into account that the songs selected by the American researchers belong to somewhat conventional musical styles, they are known to students through the media (the song *C'est si bon* performed by Stan Freberg was included in a puppet theater play). The study was carried out at the beginning of the 90s, and the musical styles used (*jazz*, *musical*, *rock-and-roll*, *disco*) were in vogue, therefore intensively broadcast at that time.

Most of the songs used humor through vocal techniques that entailed: the croaking voice, funny verbal structures resulting from the combination of some syllables on certain rhythmic formulas, onomatopoeia, glissandos, interjections. Whether these techniques can be used in academic music to have the same appealing effect remains to be debated.

3. Open-earedness in adolescence

From open-earedness theory's perspective, the period of adolescence is one of decline in terms of students' interest for unfamiliar music. Hargreaves, Comber and Colley (1995) assessed the extent to which age, gender and musical training influence preference for 12 musical styles, in a group of 278 students from Great Britain, divided into 2 groups: one group of fifth graders (aged 11-12 years old) and another group of ninth graders (15-16 years old). The students' preference for the following music styles was measured: rap, house, reggae, blues, heavy metal, jazz, classical music, country, pop, folk, opera and rock.

Unlike other studies, the British researchers did not use music listening. Instead, they asked students to circle on a 3-point Likert scale (where $1=I\ don't$ like it, $2=I\ don't$ like it, but I don't dislike it either, $3=I\ like$ it) each musical style. In order to test the validity of the evaluation method, a smaller group of students made associations between certain musical fragments they listened to and the name of the musical styles in which they fall. Since a relevant Alphacoefficient was obtained, the authors concluded that the chosen research method was valid.

The results showed a significant effect of age on the preference for following styles: rap, reggae, heavy metal, jazz, country, folk and rock, which were preferred more by 5th graders compared to 9th graders. There was no difference between the two groups regarding style preference: house, blues, pop, opera and classical music. The most spectacular differences were the following:

• *rap* music was strongly preferred by the 5th graders (67.8%) and significantly less preferred by the 9th graders (32.6%);

- rock music was equally preferred by middle school students (63.6%) and significantly less, but still in a high percentage, by high school students (45.2%);
- *heavy metal* and *rock* styles were significantly more preferred by boys compared to girls, a phenomenon explained by the stereotype relating these styles to masculinity and aggression;
- students who had previously benefited from instrument lessons or sang in a choir significantly preferred the following genres: *blues*, *jazz*, *folk*, *opera* and *classical music*.

The study reveals some interesting aspects. On the one hand, towards academic musical styles such as classical music and opera, both 5th and 9th graders showed a low and relatively identical level of openness.

The result confirms LeBlanc's theory of open earedness, as it is expected that in the case of students unfamiliar with these styles (we are talking about those who haven't taken instrument lessons) to be a decline in tolerance towards unfamiliar music.

Regarding the commercial music (pop style) that students encounter very often in their daily life, the preferences remain as close between the two ages, but manifesting in a positive sense (the majority of the group gave very high scores).

So we have two styles for which preferences remain constant between 11 and 16 years, on the one hand in a negative sense (for *classical music* and *opera*), on the other hand in a positive sense (for *pop* music).

Regarding jazz, country, rap, rock, heavy metal, reggae and folk music, the very different preferences between the two groups in the sense of declining openness to these styles can be explained by two ideas. First of all, the authors indicate the probability of the existence of narrow public niches for the respective styles, each of the niches in question having specific psycho-social characteristics. For example, it may be that in fifth grade, the mildly aggressive and violent messages of rap music are considered outdated by older students. Along the same lines, a second motivation for the decline in preference for the above styles could be given by the fact that at a given moment, a number of musical styles are more fashionable than others. Thus, in the year 1995 (the time of the research), it is possible that jazz or country music pieces were less among the international charts of youth radio and TV stations, frequently listened to by high school students and barely discovered by those at beginning of middle school. Third, there is the possibility that the decline in openness manifests itself earlier for academic styles and later for rhythmic styles listened to especially by young ages. It remains to be investigated whether this decline persists during college or even later.

In conclusion, Hargreaves' study confirmed LeBlanc's theory of musical openness, indicating that in early middle school and high school the preference

for academic music declines. The commercial style, familiar to students, remains at the top of preferences. Jazz and other rhythmic styles are preferred by 5th graders and rejected by 9th graders.

One relatively new idea circulated in the social psychology of music is that musical preferences are determined by the particular functions that music has in our life. Thus, two German researchers (Schafer & Sedlmeier, 2009) discovered, through a series of correlational studies conducted on almost 1000 subjects, that certain musical styles are preferred by certain categories of people due to specific roles:

- those who prefer electronic music genres (*techno*, *trance*, *house*, *dance*) do so because it provides a state of energy and closeness with others through dance;
- people who prefer rock music (*punk*, *heavy metal*, *alternative rock*, *gothic*, *ska*) and *rap* music (*hip hop*, *rap*, *raggae*) do so because this style expresses their personal identity and values and helps them understand themselves cognitively and emotional;
- preference for *pop* music (*pop*, *soul*, *R&B*, *gospel*) was associated with the desire to identify with music stars and to meet other people; paradoxically, this music did not highlight mood self-regulation as a significant function;
- those who prefer *folk* and *country* music have the important benefit of emotional regulation through music and self-knowledge of their own thoughts and feelings;
- finally, those who prefer sophisticated music (classical, jazz, blues, swing) do so because it stimulates them intellectually, allows them to identify with certain composers or performers, offers them the opportunity to know more about the world from an artistic perspective, and with its help he experiences different sides of his own personality; curiously, obtaining emotional effects or obtaining energy are not characteristic functions of this style.

Schafer and Sedlemeier's study was conducted on people in Germany between the ages of 15 and 78, and although it does not necessarily reflect the reactions specific to teenagers, it draws attention to the need to consider the functions of frequently listened to music as an important element in shaping preference for a certain musical style.

Following this idea, a research carried out on 490 teenagers in the Netherlands (Mulder et al, 2009) explains the specifics of open earedness between the ages of 12 and 23 through the cognitive, emotional or identity functions that music fulfills in each sub-stage of adolescence. The Dutch study was integrated into the Qrius Switch-On project (www.qrius.nl) which, in collaboration with MTV Networks Benelux, obtained details of subjects' music preferences through a questionnaire distributed and completed on internet.

One of the variables studied was the stability of the musical preferences of teenagers. In this sense a longitudinal research method was used (data collection lasted almost 2 years, between April 2004 and January 2006), the respondents being asked to complete the same items of three times, once every 7 months. Preference for specific musical styles and performers, as well as the stability of preferences over the 2 years, were investigated. The classification of musical styles was made on the basis of factor analysis which distributed 25 genres into 5 styles as follows:

- *pop* style: top 40 (chart songs created by teenagers on youth music radio / tv channels), *ballads*, Dutch pop, Latin music, boy band pop music;
- *urban* style: *rap*, *R&B*, *reggae*, *dancehall*;
- elitist style: soul, R&B, lounge, jazz, classical music;
- rock style: rock, hard rock, alternative rock, punk, gothic, heavy metal;
- dance style: dance, trance, techno, electro, hardhouse.

The results showed that teenagers' preferences are diversified according to the developmental stages. Thus, younger teenagers (aged 12-17) particularly liked pop style and indicated very recent artists as their favorite performers, with their preferences changing frequently. Mulder and colleagues interpreted the phenomenon as a need for belonging in early adolescence to the group of friends of the same age. The idea of popularity occupies an important place in this period, and conformity to what is fashionable is manifested at a high level. At the age of 12 (the beginning of secondary school), the students' tendency to copy the behavior of group members and the preference for top 40 songs (that is, the songs voted by those of their age, through the media) is a relevant indicator of this mimicry. At the same time, every 7 months, these teenagers showed a radical change in their favorite artists, which once again demonstrates the instability of musical preferences and the narrowing of their cultural field only to "seasonal" trends in music.

In the final stages of adolescence (17-23 years), the preference for pop style remains at the same high level, but the stability of musical preferences increases due to the need to build one's own identity. The search for self, the identification of personal originality, the identity crisis are facets of the same priority problem for those at the age of 18, and the phenomenon is manifested in musical preferences through two aspects: the fact that they indicated as preferred performers a series of artists who have passed the test of time (such as Metallica, Madonna, Robbie Williams) and the fact that those artists remained in the top of their preferences for the entire duration of the experiment (2 years).

Other findings of the Dutch study referred to the influence of educational level on musical preferences. Thus, those with higher academic education (high school versus secondary school) indicated a significantly lower preference for dance style genres and a significantly higher preference for elitist style genres.

Emotional regulation of adolescents through listening to their favorite music is one of the functions analyzed by two Finnish researchers (Saarikallio & Erkkila, 2007) in a study based on interviewing 8 students (4 girls and 4 boys) aged 14 and 17. Previous studies have shown that music occupies an important place in the lives of teenagers, who spend a lot of time listening to their favorite songs. Since adolescence is a difficult transition stage, where physical, cognitive, affective and social changes can be difficult to bear, during this period, activities that include listening to music are also used by students as a factor of emotional mood management.

The content analysis of the interviews highlighted 7 emotional regulation strategies through favorite music, with better cognitive and social functioning:

a) Entertainment

Background music accompanies most activities teenagers do, listening to music while reading, doing homework, traveling, playing sports, visiting friends, chatting on internet, cleaning the house, or even while sleeping. In this case, the role of music is to create positive emotional states or to make certain boring or unpleasant tasks easy to tolerate.

b) Revival

Music brings relaxation, but also revitalization. In the evening, after a tiring day, listening to favorite songs has a calming effect that helps students avoid insomnia. At the same time, during the morning, music energizes them, giving them the vitality needed to solve the problems of the day.

c) Strong sensation

The hormonal changes present in adolescence bring strong emotional experiences in which students are drawn, voluntarily or involuntarily. Listening to music congruent with their mood helps students develop emotionally, giving them the feeling of living life to the fullest and giving them the opportunity to feel in touch with their own bodies. In these moments they like to abandon themselves in their own feelings that they experience at a deep level, thus finding new perspectives on reality. Totally concentrating on music and experiencing "goosebumps" are similar to the flow state, where the feeling of the "here and now" is more important than worrying about the past or the future.

d) Diversion

Through this regulatory strategy, adolescents use music to escape anxiety, depression, anger, stress, or negative thoughts. Thus, certain songs can support students to detach from overwhelming concerns, soothing music having the effect of establishing a state of calm and peace, favorable to reassessing problematic situations.

c) Discharge

Listening to aggressive music at high volume helps teenagers vent their anger or frustration. Release from intense negative emotions through the catharsis provided by listening to music is an advantageous way to avoid emotional discharge through physical confrontation or verbal aggression. In this case, music acts as a reflective surface through which negative emotions are projected and externalized without affecting relationships with those around.

d) Mental work

The lyrics of certain songs cause teenagers to identify with life situations that they are going through or have gone through and for which they have not found a solution. The atmosphere created by these songs helps to reframe difficulties, favoring finding new solutions. At other times, music induces states of contemplation, where memories, wishes or future projects intertwine, creating optimism, hope and strength to move forward. Expressing in an artistic way personal events such as separation, love or death helps students to discover those psychological depths that are the basis of obtaining a complete and wise vision of life. Music thus becomes a means of clarifying thoughts, self-knowledge, self-acceptance and gaining an intimate understanding of the world.

e) Solace

Music provides comfort and solace in times of sadness and discouragement. One of the reasons teenagers listen to sad music is because it gives them the feeling that there is someone else (the composer or performer) who is suffering as much as they are. Identifying with lyrics that express intense negative states convinces them that they are understood by others, that they are not alone in their pain and that what they feel is normal, the music thus fulfilling an important role of emotional validation.

The seven strategies of emotional regulation through music discovered by Saarikallio and Erkkila show that favorite songs have a very important role for teenagers, helping them to restore their well-being and to form an adequate and positive self-image.

Related to emotional regulation, one of the ideas frequently implied in the music education space concerns the role that a preference for certain "dangerous" musical styles (such as *heavy metal*) plays in adolescent affiliation and depression. Obviously, between the ages of 12 and 17, the preference for various musical styles is also built through a social motivation given by the need to belong to their group of friends. At the same time, the question arises whether repeated listening, within the group, of songs with aggressive or negative messages, would increase the level of depression and encourage teenagers to commit suicide. The hypothesis of a Canadian study (Miranda & Claes, 2009) centers around this idea, analyzing *heavy metal* music preference and depression coping strategies used by 467 students in grades 9, 10, and 11 from a high school in Montreal.

The psychotherapy literature has identified three strategies for coping with depression:

- coping focused on the problem the person is oriented towards solving or minimizing the impact given by the depressing element;
- emotion-focused coping the person is oriented towards reducing the negative emotions generated by the depressing element;
- avoidance-focused coping the person denies depression and withdraws from action.

The results of the Canadian research showed that the reduced level of depression is associated with the use of problem-focused coping in the case of girls and that of emotion-focused coping in the case of boys. Avoidance-focused coping was correlated with high levels of depression.

Regarding the influence of preference for "dangerous" music styles, the two researchers found the following phenomenon: preference for heavy metal music is associated with high levels of depression in girls only when they are part of a group whose members they are equally depressed. In other words, affiliation based on preference for the music genre in question is only achieved by highly depressed adolescent girls. In this case, co-listening to negative or aggressive messages from *heavy metal* music (many lyrics of the songs talk about suicide and death) causes an increase in depressive symptoms because it determines negative automatic thoughts, low self-esteem and a general state of despair.

It is not excluded that similarly, other problematic behaviors specific to adolescence (risky sexual behavior, antisocial disorders) are correlated with the preference for musical styles specific to some subcultures that are somewhat isolated or rejected by society. We are talking here about the music of the ghettos or the population without access to education, music whose lyrics often incite inappropriate behavior.

3. Conclusions

Music is indeed a universal language, but the ways through which it penetrates into human life are always specific, being received differently depending on age, education, gender, musical experience, cultural and professional environment, ethnicity, nationality, etc.

Since the first research conducted by Farnsworth, Hargreaves and LeBlanc, there have been multiple confirmations of the theory of open earedness on populations of various nationalities, each of the new studies completing the picture regarding the receptivity to music of various categories of subjects.

The study of factors that could influence music preferences at school ages, especially for academic music, remains an open topic for researchers in psychology of music, and future directions of analysis may consider the effects of individual elements such as personality or skills, in correlation with age.

References

Hargreaves, D. & North, A. (1997). *The Social and Applied Psychology of Music*. Oxford: Oxford University Press.

Hargreaves, D. (1982). The development of aesthetic reactions to music. *Psychology of Music*, 51-54.

Hargreaves, D., Comber, C. & Colley, A. (1995). Effects of age, gender and training on musical preferences of British secondary school students. *Journal of Research in Music Education*, 43 (3), 242-250.

Hargreaves, D., Marshall, N. & North, A. (2003). Music education in the twenty-first century: a psychological perspective. *British Journal of Music Education*, 20 (2), 147-163.

Kopiez, R. & Lehmann, M. (2008). The "open-earedness" hypothesis and the development of age-related aesthetic reactions to music in elementary school children. *British Journal of Music Education*, 25 (2), 121-138.

LeBlanc, A. (1980). Outline of a proposed model of sources of variation in musical taste. *The Bulletin of the Council for Research in Music Education*, 61, 29-34.

LeBlanc, A., Sims, E., Siivola, C. & Obert, M. (1996). Music style preferences of different age listeners. *Journal of Research in Music Education*, 44 (1), 49-59.

LeBlanc, A., Sims, W., Malin, S. & Sherrill, C. (1992). Relationship between humor perceived in music and preferences of different-age listeners. *Journal of Research in Music Education*, 40 (4), 269-282.

Miranda, D. & Claes, M. (2009). Music listening, coping, peer affiliation and depression in adolescence. *Psychology of Music*, *37* (2), 215-233.

Saarikallio, S. & Erkkila, J. (2007). The role of music in adolescents' mood regulation. *Psychology of Music*, *35* (1), 88-109.

Schafer, T. & Sedlmeier, P. (2009). From the functions of music to music preference. *Psychology of Music*, *37* (*3*), 279-300.