

MUSIC, THE LANGUAGE OF INTELLIGENCE AND SENSIBILITY

Ioan OARCEA¹

Abstract: *Music is a language of intelligence and sensibility, of inductive-emotional and conceptual-ideatic essence, which favours the development of personality and character, and is a predictor of success.*

The musical evolution of the individual can be influenced and determined by factors outside of the musical spectrum: heredity, emotional intelligence, education, age, gender, family environment, or factors related to music: the melodic texture, ambitus, registry, and poetic text, the vocal pattern of interpretation, collective or individual singing. Musical education is an attitude of mastery teaching; it involves interpretive experience, intelligence and culture.

Key words: *Art, language, intelligence, communication, semantics, education, development.*

1. Introduction

Music is the art that expresses the most subtle feelings and ideas with the help of sounds, and it is a component with multiple valences of the human being: it develops the imagination, sensibility and creativity, contributing to the development of intrapersonal and interpersonal social, cultural and professional relations.

One of the objectives of musical education, with a determinant role in the development of personality and character, is the multiple and complex development of human intelligence.

In his book, *Frames of Mind: The Theory of Multiple Intelligences* (Gardner, H., 2006), Howard Gardner describes the existence of the seven types of intelligence: 1. Mathematical – Logical; 2. Visual –

Spatial; 3. Linguistic – Verbal; 4. Rhythmical – Musical; 5. Body – Kinaesthetic; 6. Intrapersonal; 7. Interpersonal.

The intrapersonal intelligence (self-awareness of inner conditions) and the interpersonal intelligence (social-community interaction) are two abilities that, together, represent the emotional intelligence (of the heart); concept defined by psychologists Peter Salovey and John Mayer (Goleman, D., 2001).

Intelligence is a bio-psychological potential, with a multiple and autonomous character present in all human beings, in variable proportion, and which contribute to acts of creation and is manifested in the capacity to solve problems and accomplish products in real life situations, based on various methods of knowledge, understanding and learning.

¹ Dept. of Musical Pedagogy, *Transilvania* University of Braşov, Romania.

The degree of intelligence is given both by intellect, cerebral thinking (IQ) and by the affects of the heart, the emotional intelligence (EQ). The challenge of the 21st Century is a revanche of the emotional intelligence over cerebral intelligence (Goleman, D., 2001).

The values of emotional intelligence (kindness, empathy, appreciation, joy, peace, ...) are acquired by a positive attitude, by gradual growth, with a determinant role in the achievement of professional success.

Development and harness of the multiple aspects of intelligence with a role in the development of the human personality is the main objective of the educational endeavour. The surprising thing is that musical intelligence is found in all seven types of intelligence described by Gardner:

- Musical acoustics, theory of music, harmony, creation of composition operate with logical-mathematical models, categories and relations (Giuleanu, V., 1986 p. 25-26);
- Musical compositions, in their diachronic and synchronic flow, as well as directing in its expressive-performing flow have a spatial representation;
- Vocal music manifests itself syncretic with the help of the linguistic code;
- Musical rhythm originates in the body rhythm and it is the temporal form of biological existence of the human being as well as one of the main components of the musical language;
- The body-kinaesthetic movement is the complementary visual and organic language of the musical expression;
- Self-awareness (intrapersonal) as well as the capacity to interact with others (interpersonal communication), that is, the emotional intelligence, represents the capacity to perceive and express emotions, to access or generate sentiments that lead to the development of human thinking.

Researches of last years have brought up surprising data regarding self-awareness of human existence, thus contributing to the scientific foundation of the complementary relations between the material and spiritual-aesthetical existence. For that matter, the conclusions of the researcher are but scientific argumentations of hypotheses enunciated from antiquity, conveyed and kept in the community spiritual tradition. Thus, in accordance with the discoveries of quantum physics, the human being is a mixture of matter and energy, who, due to self awareness achieves rich and complex interrelations with the natural, material, social and aesthetic environment.

The Russian physician Vladimir Poponin proves at the beginning of the 90's that the human DNA has a direct influence over the atomic photons (particles that the surrounding world is made of), and a quantic field exists that unites us to the surrounding reality (Vela, A., 2012).

The Institute of Cardiology of California considers that there is an intelligence of the heart, emotional intelligence, which generates an electric field that extends to the outside of the body (Vela, A., 2012). If through our thoughts, the brained emits energy to the outside, via electromagnetic impulses, one of the most important discoveries is the fact that the human heart is a transmitter of an electromagnetic field much stronger than that of the brain.

Emotions and affective or aesthetic feelings that are born in the human being, as attraction or rejection reactions of the received info, are in fact emissions of pulsatory electromagnetic energy, physical-chemical entities with objective existence that acquire an aesthetical signification, subjective, only if the message has an ideatic content, affectivity, expressivity.

Consonance and dissonance, as musical phenomena of attraction and rejection of

sounds within intervals, chords and intonation systems are but a particular case of consonance and dissonance of the universal existence, which is met both in material area and in the social and aesthetical one. In the electronography of two individuals that generate positive emotions (love, joy, contentment) the curves of the aura are convergent, producing a state of communion, merging, being in affective consonance, while individuals generating negative feelings (hate, frustration, discontent) are in affective dissonance, and the curves of their aura are divergent, rejecting each other (Popescu M.).

The effect music has on human intelligence and affectivity is influenced by at least three factors: musical content of the heard piece, the affective-value experience of the performer and the degree of intelligence and sensitivity of the receiver. For this reason, hearing and lively musical interpretation from the concert hall is profoundly superior to the one inserted on CD or DVD, since the recording has no capacity to conserve and emotionally valorise the inner sonority of a musical creation, its cerebral-affective-aesthetic energy, as well as the energetic interference created live between the performer and the receiver.

2. Semantics of musical language

Gardner's theory of multiple intelligences, presented in the introduction, is the argument that supports the idea that the predisposition towards music, that is encountered in all individuals, to a higher or lower degree, constitutes the native background of the human being, the genetic matrix based on which, the musical education determines the development of fundamental musical skills and abilities, with decisive role in the development of personality and character; the character

define how decisions are made by a person in the decision making process. A good character transcends hierarchical, age or financial status differences, because it is based on long-lasting features that determine positive attitudes and correct decisions at the highest behavioural standard, in any circumstance and regardless of the circumstances, but especially in extreme, difficult circumstances and correct decisions always lead to genuine achievements.

There is a complementarity between the intellectual-cerebral activities and the artistic-emotional activities that produce balance and evidence the intrinsic resources of the human being. The capacity to understand and communicate both in the field of essentially logical-mathematical languages and in the field of spiritual affective languages represents a value attribute of the human personality with benefic effects on the individual professional activity, as well as of the social community. Musical activities provide intellectual and emotional support to the individual in exploring and understanding of the human universe, determining the individual to communicate and react to challenges, to control his/her emotions and to react to creative experiences that require cooperation, focusing and discipline.

The semiology of musical language uses a system of signs and organizing concepts that are of mathematical-logical essence. The four basic qualities are based on perfectly measurable values: height is manifested via acoustic frequencies in a diachronic and synchronic spatial process; duration is displayed as sequences of sound impulses organized in mathematical relations; intensity is a sequence of dynamic plans in a logical-expressive structure, and timbre can be studied using the theory of harmonic resonance. (Giuleanu, V., 1986 p. 70).

Thus, musical language, with a semiology closely related to the abstract-mathematical semiology, is related to the specific semantics of the artistic disciplines, that produce aesthetical values and reflect the universe of the human and material reality via specific means and elements of language, that imply artistry, skill and competence (Nattiez, J.J., 1975, p. 27, 50).

The set theory is the mathematical field of interference with the musical language, due to the similarity of the logical thinking processes, which are at the foundation of the two communication systems – mathematical and musical. The infinite variability of combinations and permutations of the four elements of the musical language – spatial (height), temporal (duration), dynamic (intensity) and coloristic (timbre) – leads to the creation of structures of an unending diversity.

The bivalent character of the musical language is evidenced by the two means of expression: the graphical one of the score and the immaterial sound reality, inductive-expressive, as a result of musical performance. We need to add also a deciding factor of the artistic expression; the technical blameless performance of the interpreter, as intermediary re-creation factor between the composer and the audience can produce emotions within the audience only if it is doubled by a maximum affective experience.

If the mathematical language is distinguished by the accuracy of the logical expression, the musical language impresses by the affective expressivity of the content – sound columns in diachronic and synchronic course, with an energetic influence over the human organism, of kinetic stimulation and ordering. In this regard, the musical message generated by performing or hearing a musical artistic creation has two content connotations: of cerebral intelligence and of emotional intelligence – thoughts and emotions and

feelings transcribed in electrical energies and magnetic fields that interfere with the outside as well as with the body to bring about those experiences with extraordinary psychic and parapsychic.

And still, the difficulty of approaching musical language as well as of the afferent education consist in the ability of understanding the subjective expression hidden behind these language elements with measurable values, because we can say that understanding is completed by what is not expressed by words, and the true essence of musical communication begins beyond the technical manifestation of the four elements of language (Bentoiu, P., 1973 p. 72-78). For that matter, here lays the barrier that separates the two categories of musicians: those who approach music via technical lecture and understanding, on the surface, and those who penetrate the essence of the musical expression exploring the universe of imagery and feelings that transcends the written text of the score.

Understanding of the deep universe of the musical language is not a result or a strict prerogative of study and education within the specialized musical education.; sometimes, it remains hidden to professional musicians, that perceive and approach it rather in a theoretical aspect and is revealed in its performing intimacy to those who, by the intelligence of the heart enter into, decode and fully live the hidden universe of sounds.

3. Is musical art a privilege of the talented ones?

There is an idea that musical art is a privilege confined to those natively gifted, to those who are talented. And yet I am convinced that most individuals, including those less talented, love this language and feel great while practicing it, when they sing, because the daily existence of the

human community is 'shrouded' in sounds and each individual have in his own existential type this energetically vibration for musical communication.

How else can you explain the fact that within a limited geographical space, in a school or a locality, sometimes insignificant and lacking a large selection area, there are excellent choirs, formed by a professor that manages to take the performance to high levels, and when he or she discontinues his or her activity everything disappears? Are there talented children only in certain schools, in certain classes, in certain geographical areas, in certain periods of time? Is the individual born with a certain IQ and nothing can change this, or is the IQ an ability that can be trained and taught? (Goleman, D., 2001 p. 10).

Why certain intelligent and musical individuals have poor results and why certain individual with average intelligence and musical skill have great results in terms of performance?

The answers are obvious: within the DNA matrix there are native predispositions towards special abilities of the individual, of intellectual or artistic nature, and talented and intelligent children exist in all geographical or social area. The existential course of the individual is determined by the emotional intelligence, character, personal culture, attitude and self-exigency as well as by the decisions made related to the challenges of life, and the role of education within the family and of the teacher's artistry are determining in the achievement of the individual development.

4. Musical education – traits and difficulties

The approach of the proper theme proposes at least three objectives:

1. To bring to the attention of future music teachers the difficulties they are going to meet in their teaching career,

attempting to offer solutions and methods to overcome them;

2. To draw the attention of the decision making factors to the role and importance of musical education in the development of the human personality and to the tonic-creative effect of the musical phenomenon in the life of individuals of all ages;
3. To determine the introduction in the university curricula designed to develop future music teachers of a study discipline that can provide an answer to the issue at hand.

This exposure is based on observations made during the teaching experience and musical research performed during the years, regarding methods of education of talented and less talented students, including of those considered tone deaf, within most varied collectives: from ordinary students in the general educational system, to students within the vocational, musical educational system.

In order for the observations to be as practical as possible, avoiding abstract theorizations, I will limit them to collective and individual vocational education – choir singing.

The musical teaching career offers one the most surprising moments and situations in which one is sometimes compelled to reconsider much of the musical and teaching knowledge acquired, since music teaching in general and teaching vocal music in particular, requires the approach of education in a special manner, different from that of other educational disciplines.

The performing approach of the musical communication requires knowledge of the methods of sound emissions, in their spatial diachronic and synchronic flow, via the syncretism of the four elements of language – height, duration, intensity and timbre, and the development of singing voice implies the knowledge of the anatomical and physiological features,

human individual as well as of its psychological and temperamental structure. The musical message is perceived under the form of sound fluxes, poetically defined as 'musical imagery', that convey emotions, feelings, and ideas, due to the energetically expressive induction, that puts into the vibration the universe of human psychic. Understanding the significance of the message of musical signs, though it may seem visually exact, is as relative as the practical accomplishment. The musically gifted children overcome on their own and easily all stages of assimilation of the musical language, while children with common hearing sometimes do it through educational monitoring and interpretation practice. In such situations, the challenges of the profession, as well as the teacher's working methods require special and long-term didactic skills, but the final end of this activity is a gain for the person it is addressed to. Awareness of the individual characteristics of the child implies the use of the best method in an actual circumstance.

The complexity and communicative force of the musical language is manifested through the fact that the human individual perception and decoding method, essentially nonmaterial, can take linguistic, visual, painting, spatial significance – by reference to the specific of other arts.

The production of sound – singing per se – is conditioned by the proper functioning of the organs of the human body, in a systemic correlation between sensory and knowledge (intellectual) processes, and, the perception of sound requires a proper functioning of the nerves, of the central nervous system, attention and motivation. The musical memory, based on focusing and rehearsal, represents the ability to memorize the configuration of the actual height of the heard sounds and to fix the audio information via means of perceptive learning and of the vocal model provided.

The hereditary transmission of musical skills is a controversial reality, and it is sometimes defined as predispositions and abilities transmitted genetically. A distinctive influence is that of the musical communication by the singing of the mother to the foetus during the intrauterine interval. The vocal patterns of the parents have decisive importance in the development of the musical sense of the children, by developing or inhibiting their ability to sing accurately. Children react easier to feminine interpretative patterns rather than masculine, because they are expressed in the same octave, but the easiest pattern to reproduce for children is the very voice of children.

Due to the fact that the language of artistic communication implies a native human predisposition of hereditary but also educational characteristic, the content of the discipline, and implicitly of the musical language causes from the very beginning a communication difficulty in the teacher – student relation as well as in the student – student relation, due to the fact that it evidences a non-homogenous situation existing within the collective: natively gifted students with easy communication, students with average musical talent and students with difficulties concerning the musical communication, considered to be non-musical (tone deaf). This finding will bring about psychological implications within the collective. This is the point of objective reality existent within the collective, where the teaching endeavour of the music teachers starts, as he/she is confronted with the necessity of building up a dialogue with all children via the musical language. Unfortunately, confronted with this reality, the position of the music teacher may become biased – using the literary language he/she will speak 'about music' to the less talented children, and will communicate musically only with the

natively gifted children, leaving the tone deaf students on the outside of the musical communication. Nothing can be worse in terms of approach to education, although the situation is real within many educational institutions.

5. Musical education – an attitude of teaching artistry

In my research charts, there are individuals, choirs and conducting professors who in absolutely normal schools and in geographical areas without any special valences have achieved exceptional interpretative performances: Prof. Dr. Dumitru Jompan – Choir assembly Mărgana (Jid. Caraș Severin); Prof. Vasile Negură – Chorus “Fantasia” from Vaslui (Jud. Vaslui); Prof. Preot Alexandru Bușilă – General School nr. 2 from Făgăraș, Jud. Brașov.

The nature of these performances do not strictly refer to the competitive aspect – although sometimes the competition has a powerful role in the affective assessment and rewarding of the children for the effort and labour that have gone into the process – but to the way in which the teachers knew how to valorise at a professional level the musical potential of the children.

On the other hand, we have to admit that the totally opposite situations also occur, when children, although they are part of elite academic institutions are not familiar with the mysteries of the musical language and are not able to operate with it via vocal interpretation; the choral activity is, at best, average, and the children do not enjoy the beauty of singing. Under the form of case studies, here are some real life examples:

In the 5th grade, in a usual middle school, out of the four parallel classes, in one of them none of the children sing, all of them being considered tone deaf. I have encountered a similar situation at children of the same age, selected as elite

mathematics class, of a renowned college. General School nr. 28 from Brașov; National Collegiums „Andrei Șaguna” from Brașov]. In both cases presented after researching the motives, I have come to understand that all those children that were not singing, have not taken any hours of music during the elementary classes; the time destined for music was used for math and other study disciplines.

When asked what has determined her not to have the music classes, the elementary teacher has explained that, in order to achieve the performance standards at the level of the educational curriculum she needed the extra time which she took from the music lessons. I do not dispute the necessity of further education of all study disciplines, but for the harmonious development of intelligence and character, it is necessary to develop all components of the human personality. The subject can be furthered both referring to the content of the educational curricula, and to the capacity of understanding and assimilation of knowledge, specific to various age levels.

It was interesting to notice that all these children felt a strong urge to sing, to express them through music, but they were inhibited, they were having complexes, and when I had put them in the situation of singing, they were unable to use the most beautiful instrument – the human voice.

Speaking about the students from the vocational education system, that benefits from a special regime of musical education, the first impression and the first results do not always represent a certainty regarding their musical value and evolution.

The innate instinct determined by the hereditary legacy of musically endowed children helps them naturally operate with musical sound in its rhythmic and melodic unfolding, but the individual psychical and personality structure has a decisive influence in achieving a musical carrier.

There are students that have excellent results, an obvious musical development and who, yet, do not follow a musical career, and their maturity results are, at times, modest. There are also students who begin their musical education in an absolutely average position, sometimes with difficulties, and who are considered to be inapt for a performance musical career, and yet, their ulterior evolution was towards a professional musical career, and they became composers or musicians renowned for their artistic value. (Dr. S. M. – composer, professor at Music Academy „Gheorghe Dima” from Cluj-Napoca). Here to we can differentiate at least between two major categories: musicians with strong personalities, with obvious leader qualities, destined for soloist or conducting activity, and musicians who do not ostentatiously stick out, whom we encounter as (choir or instrumental) ensemble performers or in the field of research.

My teaching experience has proven to me that the assessments of musical qualities of children are, sometimes, relative. The evolution in time, can confirm or infirm the existence of genuine musical talent, since the manifestation of the musical instinct of a child can be determined by his/her emotional intelligence, but it can be hidden behind psychological or temperamental motives. A shy, introvert child does not reveal his inner musical resources with the same exuberance as a dynamic, extrovert child.

6. Conclusions

The educational profile of the 21st Century must correspond to the objectives and aspirations of a multicultural social system in which the school should mainly from the analytical thinking of the individual for general knowledge, and the

principle of open culture should be the main objective of the permanent education. This is why the deeper knowledge of the role that musical education plays in the development of character and personality, via the development of a personal culture, can lead to a re-evaluation of its importance in the educational system and in the continuous education, all throughout the life.

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