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THE INTERSECTION BETWEEN MUSIC AND CREATIVITY[1]

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SUMMARY. This study analyses the effect of music on aesthetic and emotional intelligence. Since creativity also means healing creation that implies digging deeper and transcendence as well, we would like to talk about the therapeutic effects of music from an intercommunication perspective. Some state that musicality is inborn and coded into our genes, which we call talent, something that can be further developed and transferred to the next generation. According to others, musicality and the ability to play and sing is not merely a matter of genetics but also puts important emphasis on the social and cultural background the individual grew up in. We shall see that there are cultures in which music is the sole instrument by which the individual can adapt to the respective *culture*. Many deem that music is the "peak of human intellect and emotionality", and that is why many studies were published in the second half of the 20th century about its effects on intellectual and emotional development. In what follows, we shall also talk about the debated Mozart *effect*, the biological basis of music and the stimulation of logical thinking. Through music, the help, the counselor, the attender, the priest has a tool with which they can positively influence cognition, the expression of feelings, the development of creativity, whilst „the effects of the expansive transfer prevails through the intellectual, emotional and motivational changes". But for all that, we must first get familiar with the effects of music on intellectual and emotional intelligence.

Keywords: music, emotional intelligence, creativity, imagination, Mozart effect, logical thinking

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"…the germ of a future composition comes suddenly and unexpectedly. If the soil is ready — that is to say, if the disposition for work is there — it takes root with extraordinary force and rapidity, shoots up through the earth, puts forth branches, leaves, and, finally, blossoms. I cannot define the creative process without resorting to metaphors."
- Tchaikovsky[3]

Creativity and heredity

Creativity[4] was first studied in the 1950s by Joy Paul Guilford[5] who called creativity "the capacity to invent" and distinguished between *convergent*[6] and *divergent* thinking. The former arrives at a solution through analysis, decomposition and recognition of the relationships between elements, while divergent thinking is akin to search and discovery, which arrives at a recognition through different alternatives.[7] According to Eckhard Tolle, "everything that really matters - beauty, love, creativity, joy, peace of mind - comes from the realm beyond the mind".[8] According to Ellis Paul Torrance, psychologist,[9] creator of the Torrance Test of Creative Thinking (TTCT), creative thinking can be healing, deepening and transcending.[10] Creativity is therefore also a healing act, and we would like to discuss its therapeutic effects of music below.

Certain folk cultures demonstrate their creativity in the use of instruments and dance. The Peruvian *Amahuacca* indigenous tribe of 500 people in 1970 uses the mouth organ as a stringed instrument,[11] while the Swiss Alpine horn,[12] of Celtic origin and an intercommunication instrument, is in itself the precursor

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[3] Newmarch, Rosa. *Life and letters of Peter Illich Tschaikovsky*. John Lane, London, 1906. 274. *To N. F. von Meck, Florence February 17th (March 1st), 1878.* ".... *I cannot define the creative process without resorting to metaphors"*

[4] creator: "the individual originator of a work of art who, through intellectual or physical labour, consciously creates a new work of art". In: Ortutay, Gyula (editor-in-chief). *Hungarian Ethnographic Dictionary* (1977-1982). *http://mek.niif.hu/02100/02115/html/1-8.html* (accessed on August 20, 2024).

[5] Joy Paul Guilford (1897-1987), American psychologist.

[6] Latin for "to incline together"

[7] Gyarmathy. Éva. *Kreativitás és a beilleszkedési zavarok.* In: A kreativitás többszempontú vizsgálata, (*Creativity and maladjustment*. In: The Multiperspective Analysis of Creativity) University of Debrecen, Didakt Kiadó, Debrecen, 2011. *http://real.mtak.hu/8835/1/Kreatcikk.pdf* (Accessed on August 20, 2024)

[8] Tolle, Eckhart. *A most hatalma* (*The Power of Now)* (Translated by László Domján and Hava Jónai) Agykontroll Kft., Budapest, 2001, p. 14.

[9] Ellis Paul Torrance (1915-2003) USA.

[10] Torrance, Ellis Paul. *The nature of creativity as manifest in its testing*, in Robert J. Sternberg: The nature of creativity. Cambridge University Press, USA, 1988, pp. 49-50.

[11] Hamlin-Wilson, Gail (ed.). *Dictionary of Indian Tribes.* Cisco, Newport Beach, 1993. pp. 54-55.

[12] *https://www.britannica.com/art/alphorn* (accessed on August 20, 2024)

of the telephone. In African tribes, the play of two or more drums goes beyond mere musicality, as its creative, polyrhythmic form is also an expression of a linguistic tool, of communication.[13] The Venga tribe of South Africa is not literate, i.e. preliterate, and therefore passes on knowledge to the next generation through song and dance. This skill is inherited by all of them, unlike in Western European nations. There are therefore cultures where music is the only means by which an individual can integrate into that *culture*. However, Freud and his followers argue that our culture tends to exaggerate the importance of the controllable and neglect those factors that can be influenced.[14] And Andrew Wilson-Dickson writes that in Bali[15] there is no specific term for art, even though it is one of the richest cultural traditions in the world, as *music*, theatre or sculpture are inseparable from life as creative pursuits.[16]

According to Yehudi Menuhin, music is a mirror of the thinking process itself, as we try to control the unpredictable, we have a psychological need for security, we want to give events a purpose and direction, and we want to convey that which is on our minds.[17] This requires creativity. If we look at the population of the world, we see that some people compose, sing and play music creatively, others less so.[18] According to the ancient Greeks, there are four *types of genius* to be born with: mathematics, poetry, visual arts (fine arts) and music. This statement also assumes that genes have something to do with all of this.[19] So there are some views that musicianship is innate, coded into our genes. We call it a talent, which can be developed and passed on to the next generations.[20] In family therapy, *delegation* is the phenomenon of the previous generation passing on their experiences, desires and values to the next generation.[21] There are many explanations as to whether or not musical

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[13] Sexton, Timothy. *African Drumming and Communication: An Ethnomusicological Analysis of Traditional African Drum Rhythms. http://www.ramstrum.com/music125/AfricanDrummingCommunication.html* (accessed on August 20, 2024)

[14] Hall, Edward T. *The Hidden Dimension,* Anchor Books Editions, Doubleday, New York, 1966, p. 83.

[15] Island in Indonesia, 93% of the population is Hindu, with Muslims being the largest minority. Gamelan music is highly developed and diverse.

[16] Wilson-Dickson, Andrew. *The Story of Christian Music*. A Lion Book, Oxford-Batavia-Sydney, 1992, p. 9.

[17] Menuhin, Yehudi and Davis, Curtis W. *The Music of Man.* Ontario, Canada 1979, Methuen Publications 2330, Milland Avenue, Agincourt, pp. 17-18.

[18] Cochrane, Fiona. *Music of the brain*. Documentary film. USA, 2009.

[19] Czeizel, Endre. *A zeneszerzők genetikája (The Genetics of Composers) https://www.youtube.com/watch?v=gPhcIgZy-QE* (accessed on 20 October 2016).

[20] Cochrane, Fiona. *op. cit.*

[21] Hézser, Gábor. *Miért? Rendszerszemlélet és lelkigondozói gyakorlat. Pasztoralpszichologiai tanulmanyok. (Why? Systems Theory and Pastoral Care Practice. Pastoral Psychology.)* Kálvin János Kiadó, Budapest, 1996. p. 15.

creativity is hereditary, but the most likely is that it is culture dependent. When Johann Gregor Mendel, Abbot of St. Augustine and botanist, discovered genes, he knew that something had to pass on genetic gifts.[22]

Reed E. Pyeritz (MD, Philadelphia) distinguishes between *autosomal dominant,*[23] *autosomal recessive* (latent inheritance) and *X-linked* (sex-linked) *inheritance in* relation to heredity.[24] As we will see, the ability to play and sing music is not only a matter of heredity, but also very much a matter of the social and cultural background in which the individual was raised.

Imagination is worth more than knowledge

Music is considered by many to be the "pinnacle of human intellect and emotionality",[25] and a number of studies on its impact on intellectual and emotional development have been published in the second half of the twentieth century. Albert Einstein, who himself played music daily, believed that *imagination is worth more than knowledge*[26] and said that "*if I could not move past a problem and I was permanently stuck, music helped me through the difficulties - the problem was thus solved*."[27] Plato knew that music was important for the developing soul and mind*, and* so, while talking to Glaucon, he says the following *"Isn't it true, Glaucon, that the most important thing is musical education, because rhythm and harmony dive deep into the soul and grip it most strongly, creating a beautiful form in it; this makes the soul beautiful, provided that something is educated correctly, but if not, the opposite.*"[28] In an interview broadcast on Hungarian Television, Zoltán Kodály was asked why he devotes so much energy to the musical education of children.

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[22] Claybourne, Anna. *Bevezetés a gének és DNS világaba (Introduction to genes and DNA)* (Translated by Edina Sarka) Tioti Kft, Budapest, 2005, p. 26.

[23] If the dominant gene responsible for a disease or trait is located on a chromosome in the body, it is called *autosomal dominant* (AD) inheritance.

[24] Reed Pyeritz. *Orvosi genetika (Medical Genetics)*. In. PAPADAKIS - Steven A. SCHROEDER (eds.): *Korszerű orvosi diagnosztika és terápia*. *(Modern Medical Diagnostics and Therapy)* (Translated by Mária GERGELY and Ágnes MATOLTSYNÉ Horváth) Melánia Kiadó, Budapest, 1993. pp. 1274-1276

[25] András Falus (ed.). *Zene és egeszség (Music and Health)*. Kossuth Publishing House, Budapest, 2016. p. 16.

[26] Root-Bernstein, Michele and Robert. *Einstein on Creative Thinking*: *Music and the Intuitive Art of Scientific Imagination*. *https://www.psychologytoday.com/blog/imagine/201003/einstein-creative-thinking-music-and-theintuitive-art-scientific-imagination* (accessed on May 11, 2017).

[27] Csépe, Valéria. *Zene, agy és egészség (Music, brain and health)* In: András Falus (ed.): *op. cit.* p. 26.

[28] Plato. *Az állam (Republic*) (Translation by István Jánosy) Gondolat Kiadó, Budapest, 1989. p. 12.

Kodály explained that the Minister of Education had given permission for one school to hold six singing lessons a week as an experiment. The results were already surprising, with children in music classes speaking, writing and learning better and achieving better results in mathematics.[29] Many studies have been carried out on the relationship between mathematics and music, including one that uses music to make mathematics more understandable and attractive to students. One of the authors' aims is to find out "*what type of maths problems could be used to motivate those interested in music so that they can start enjoying maths as well*."[30]

The Mozart effect

The Mozart effect is a concept coined by Alfred A. Tomotis,[31] a French otorhinolaryngologist, published in 1991 in his book *Pourquoi Mozart?*, specifically analysing the psychophysiological effects of Mozart's music. At the same time, neuropsychological sound therapy demonstrates how this procedure works.[32] Researching the relationship between hearing and music, Tomotis has found that music can be used to cure sleep disorders, depression and even organ disorders. Frances Rauscher et al., experts in cognitive development, conducted research in 1993 at Stanford University in Irvine, California, playing Mozart's music[33] to adults while they were being tested for intelligence.[34] They found an improvement in the spatial and temporal abilities of those who listened to Mozart's sonata for two pianos,[35] as measured by the "Stanford-Bine IQ test", publishing the results of this research endeavor Nature.[36] The study has generated interest but also controversy in professional circles.[37]

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[29] *http://fidelio.hu/klasszikus/2017/04/03/kodaly_a_televizionezoknek_is_elmondja_miert_van_szukseg_enekorakra/* (accessed on August 20, 2024)

[30] Lanczendorfer, Orsolya. *Matematika a zenében vagy zene a matematikában. (Mathematics in music or music in mathematics.)* BA thesis, 2010 ELTE.

[31] Alfred A. Tomatis (1920-2001)

[32] Mallory, Caroline. *The Effect of Music on Math and Science Standardized Test Scores. https://web.wpi.edu/Pubs/E-project/Available/E-project-022812-093901/unrestricted/IQPFinalDraft.pdf* (accessed on September 15, 2016).

[33] Mozart, Wolfgang Amadeus. *Sonata for two pianos in D major* KV 448 (375a), 1781.

[34] Carroll, Robert Todd. *Phänomenal: Der Mozart-Effekt (Phenomenal: The Mozart-Effect) http://skepdic.com/German/mozarteffect.html* (accessed on August 20, 2024)

[35] *Ibidem*.

[36] Rauscher, F. H. – Shaw, G. L. and K.Y, K.N. *Music and Spatial Task Performance*, Vol. 365, 1993, No. 6447, 611.

[37] Janurik, Márta. A zenei képességek szerepe az olvasas elsajátításában. In: Magyar Pedagógia (The role of musical skills in reading acquisition. In: Hungarian Pedagogy), Vol. 108, No. 4, 2008, pp. 289-317

Researcher Steven Halpern, for example, concluded that Mozart's music was dumbing people down, while Michael Linton argued that humanity could hope for an improvement in human intelligence as a result of the research.[38]

Robert Todd Carroll quotes Frances Rauscher et al,[39] who did experiments on rats. They exposed them to certain sound vibrations in utero and then placed them in a maze after birth. They observed that animals that listened to Mozart performed faster and with a lower error rate. Later, the brains of the successful performers were removed and examined, mainly to see what might have happened during the neuroanatomical processes. It was thought possible that the musical treatment had an effect on the animals, mainly in the hippocampus region of the brain. This is the region that plays an important role in memory. It was the experiment carried out in 1993 that therefore provoked a controversy in scientific circles. There is a growing side of those who say that Mozart's music[40] does not make you smarter.[41]

In some aspects of the test, they saw their intelligence level increase for about 10 minutes, but then the effect wore off. No effect was ever seen on children. Many blamed the media for misrepresenting the positive sounding effect, as various programs were soon launched, such as the Mozart program for foetuses, newborns and babies. A few years later, a *meta-analysis* by Christopher F. Chabris et al. did not confirm the earlier findings of the Rauscher group, and they argued that there was no clear evidence that listening to music increased intelligence: *"Any cognitive enhancement is small, and does not reflect any change in IQ or thinking, but is entirely due to a particular performance in a cognitive task and has a simple neuropsychological explanation which we call emotional arousal (enjoyment arousal)."*[42]

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[38] Carroll, Robert Todd. *op. cit.*

[39] *Ibidem*.

[40] A decrease in dopamine or the happiness hormone in the body can cause depression, but research experiments on rats conducted in Japan show that music increased their dopamine levels. In the experiment they used 12-week-old rats who listened to Mozart's music through speakers in a closed room for 18 to 20 hours. The results showed an increase in dopamine levels in certain areas of the brain, leading to the conclusion that music could be used to treat all brain diseases where dopamine levels are reduced. Increasing dopamine levels improves an individual's movement, emotional function and zest for life. http://panikbetegseg.eu/cikkek/a-hormones-of-happiness-2-res-dopamine/ (accessed in July 22, 2017)

[41] Abbott, Alison. *Mozart doesn't make you clever. http://www.nature.com/news/2007/070409/full/news070409-13.html* (accessed on August 20, 2024).

[42] Chabris, Christopher F. *Prelude or requiem for the 'Mozart effect'? In* Nature, vol. 400, 1999, No.6747, pp. 826-827.

Stimulating logical thinking

Rauscher and Shaw have shown that piano and singing lessons improve children's abstract reasoning and promote it more than computer-based learning. The experiment involved three groups of children: the first group was taught piano and synthesizer, the second was involved in vocal singing, while the third did not participate in any kind of musical practice. At the end of the skill tests, it was shown that *spatio temporal reasoning* scored 34% higher than the other groups after eight months of piano lessons.[43] In In our view, this performance demonstrated that people who play music have higher brain function, which is important for learning mathematics, chess, science and technology. Later, Shaw and Raucher founded their own institute called Music *Intelligence* Neural Development (M.I.N.D),[44] which researches the amazing effects of music. This study is also reported in a 1997 *Boston Globe* article, introduced by Judy Foreman with the question, *Is there really a connection between the magic of music and the way the brain develops?*[45] Shaw et al. are convinced that spatio-temporal perception is the key to higher cognitive tasks. To stimulate a part of the brain that plays an important role in understanding mathematics, engineering and chess, they offer a software package they have developed to aid spatio-temporal perception. Research at the University of Helsinki also shows that listening to Mozart's Violin Concerto in G major (K. 216) reduces the activity of certain genes associated with brain dysfunction, so fewer harmful chemicals are produced.[46]

Janurik refers to Peter R. Hurttenlocher's *Neural Plasticity: The effects of environment on the development of the cerebral cortex*,[47] which discusses the positive influence of music education on cognition, especially in childhood, when brain development is highly plastic and sensitive to environmental influences. Learning music is a complex activity: daily reading of music, practicing playing an instrument, memorizing, learning musical structures and sequences, it requires sustained focused attention and the continuous acquisition of motor skills, but also the expression of emotions. In the documentary film *Monsieur de Funès*, Marcel Rufo, a child psychiatrist, talks about the actor's

[43] Rauscher, F. H. - Shaw, G. L. - Levin, L. J. – Dennis, W. R. and Newcomb, R. L. *Music Training Causes Long-term Enhancement of Preschool Children's Spatial-temporal Reasoning.* In: Neurogical Research, Vol. 19, 1997, No. 1, 2-8.

[44] *http://www.musica.uci.edu/news/web_sites/msg00013.html* (9 December 2016).

[45] Foreman, Judy. *Music's Contribution To Early IQ Becoming More Certain http://articles.baltimoresun.com/1997-04-22/features/7901010213_1_baby-is-born-magic-ofmusic-specific-music* (4 February 2017).

[46] Bordás, Veronika. *Zene sejtjeinknek. (Music for our cells.) http://www.ng.hu/Tudomany/2015/11/09/Zene-sejtjeink-* (accessed on August 20, 2024).

[47] Janurik, Márta. *op. cit*.

musical talent and his improvisations on the piano, where a sudden idea or a visual association in the film seemed like a musical improvisation. This is evident in several of his films, where he improvised certain scenes and later found it impossible to repeat them.[48] In the same way, we see a jazz musician at his most talented and creative when he improvises.[49] The story of how the siren's song affects Odysseus,[50] who ties himself to the mast pole, and who embodies in the story the possibility and importance of the strategic behavior of the visionary man.

The documentary *Music of the Brain* points out that although humans are the only musical species, animals also make complex sounds. Like the songs of cetaceans, birdsongs[51] are produced in specific situations and for specific purposes, and serves a specific function: to find mates and to defend territory. Interestingly, only males sing. In contrast, among humans, males and females, children and the elderly sing/play music, regardless of age. However, the documentary also reports that research was carried out among a large number of young musicians to find out what early life factors predicted that they would perform at a high level as adults. The first important factor was the age at which the children first sang, because children who sang earlier achieved more later. The parent who sings to the child or plays musical games with them plays an important role in this type of development.

For over four years, Pléh and Barkóczi conducted studies in four school classes with 120 children on the development of intellectual ability, personality and community organisation in the light of what could be the effects of music.[52] The researchers were also interested in how family and cultural background can impact intellectual development. They concluded that the development of creativity is highly significant in individuals of low social status. They conclude their study with the reflection that "*the results suggest that the broad transfer effects of music education is mediated through intellectual and emotional-motivational changes*". One could say that social disadvantage is compensated by creativity over time.

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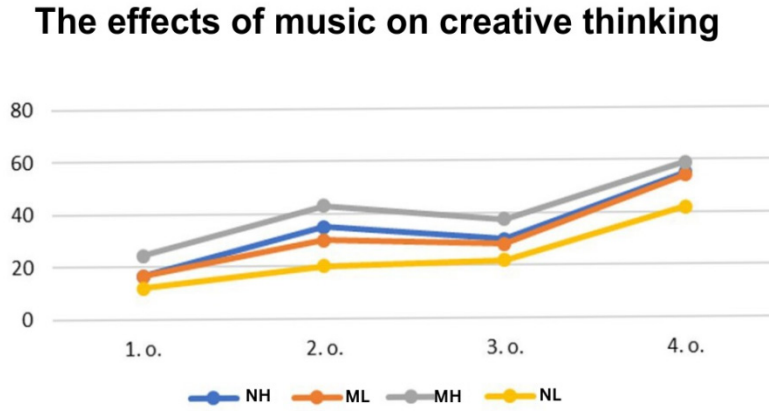
[48] Monro, Gregory and Benazeth, Catherine. *Monsieur de Funès*, Documentary film, French, 2013.
[49] Turi, Gábor*. Improvizáció, kreativitás, jazz (Improvisation, Creativity, Jazz.) http://turigabor.hu/node/1425* (accessed on August 20, 2024).
[50] Homer. *Odyseey*. Kriterion Publishing House, Bucharest, 1984. pp. 154-163.
[51] It is linked to certain hormonal changes in their brain.
[52] Source: Pléh, Csaba – Barkóczi, Ilona. *A korai zenei nevelés ötletesebbé és hajlékonyabbá tesz (Early Music Education Makes You More Creative and Flexible)* In: András Falus, *op. cit.* p. 48.

Table 1[53]



MH = Musically High Social Status;
ML = Musically Low Social Status;
NH = Non-musically High Social Status;
NL = Non-musically Low Social Status

Many researchers agree that music is a useful tool for children's self-development, concentration, development of different skills, for associative abilities and talent development.

The biological basis of music[54] and composing

In his paper, Andrea Rinaldi explains how, at the end of the 20th century, biologists joined the struggle to identify and decipher the molecular mechanisms that determine music as a creative and cognitive activity. Among other things, they seek to answer whether there might be a genetic component to musical predisposition and, if so, how it might work. He references the research of Irma Järvelä et al., who studied the musical attitudes of more than 200 people from 15 families at the University of Helsinki in Finland.

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[53] Source: Idem, p. 50.

[54] The title quotes from the following study: Rinaldi, Andrea. *Speak to Me, Melody, Music's Biological Roots and its Relationships with Language Under Scrutiny.* In EMBO Reports, Vol. 10, No. 12, 2009, pp. 1294-1297.

The results showed that musical traits can be inherited. According to Jarvel, they have found a *genetic locus* that may contain genes for musical predisposition. These are genes that influence cell expansion and migration during neural development. The studies showed a significant association between chromosome 4q22 and chromosomes 8q13-21. Researchers in South Korea have gone further, claiming that Beethoven's Moonlight Sonata leads to genetic activity in plants.[55]

Parents are worried about[56] grades in school education that reward STEM or lexical intelligence, but music education is being pushed to the background. If we expect better math grades from our children, it is not enough to enroll them to take piano lessons, they also need to learn math more as well. There is also a question of fostering creativity in music education, as children are given specific pieces to interpret, it is as if in painting we'd just ask them to color. Experts believe that children should be rather encouraged to compose. There is no clear answer to the question, but it is proven that the brain changes when one learns to play an instrument. I would like to present the results of two studies.[57] The first reports on free arts education for six-year-olds, with four experimental groups: one for keyboard instruments, one for singing, one for drama while the fourth group started attending their keyboard instrument lessons by a year delay. They were randomly assigned to a group. We know that one of the characteristics of contemporary music is that music is created with the help of a computer or synthesizer, and that these computer programs can interact with humans (group 1). It was observed that when the children worked together they were more focused, tense and precise, which means that they were biased in their interactivity, i.e. they expected reciprocation and feedback. A subsequent study reports that children from 144 families were given intelligence tests before and after the school year. The results showed that everyone's intelligence increased, which was attributed to schooling, but the music groups scored three points higher.

According to bacteriologist Robert Koch, "*one day, man will have to deal with noise in the same way as he has to deal with cholera and the plague.*"[58] The problem, then, and Bolyki confirms this, is that noise prevents

[55] Fleming, Nic. *Beethoven can help crops grow more quickly. http://www.telegraph.co.uk/news/earth/earthnews/3305158/Beethoven-can-help-crops-growmore-quickly.html* (accessed on April 4, 2017).

[56] Péter Popper refers to Howard Gardener, who talks about the visual-spatial, musical-rhythmic-melodic-auditory-, bodily-kinesthetic-, emotional- and social- intelligence. Popper, Péter – Ranschburg, Jenő - Vekerdy Tamás*. Az erőszak sodrásában (Within the Current of Violence)*. Saxum Publishing House, Budapest, 2009. p. 78.

[57] Chochrane. Fiona. *op. cit*.

[58] *http://www.mvkepviselo.hu/archiv/2005/zajexpozicio.htm* (accessed on July 27, 2016).

us from hearing the sound.[59] Yet creativity and music are rooted in silence. This idea is supported by the medical psychologist Sigfried Lehrl, who argues that in the relaxation phase, people become exceptionally creative and the brain is able to form completely new images and to recognize new contexts.[60] According to Sándor Márai, Bach "*wrote as the trees breathe, as the forest listens and speaks at the same time, as God wrote when there was no Heaven and Earth, only melody and harmony".* At the same time, he warns that "*there is only noise everywhere, but you only listen to the song*"[61] Since creativity and music are born from silence, we conclude our publication with a poem by Phil Bosmans, a Belgian Catholic priest, entitled "*Create silence!"*.[62]

CREATE SILENCE!
"If you ever have five minutes,
you know what you should do?
Think about it!
Create calm around you.
Turn off the radio, the tape recorder, the television,
put away the newspaper, the magazines.
Switch off!

Get rid of
the traps of a consumer society,
which, with the tentacles of advertising
sucks the rest of the freedom and spirit out of you:
get rid of the giant octopus.
Create calm, be still,
fill your inner being with silence,
feel your own heart beating..."

Translated from Hungarian by Juliánna Köpeczi

[59] Bolyki, László. *Milyen zenét szeret Isten?* (*What kind of music does God like?)* Álomgyár Publishing House, Budapest, 2005; p. 66
[60] Barnard, Christiaan. *50 Wege zu einem gesunden Herz (50 Ways to a Healthy Heart*. ECON Ulstein List Verlag, Munich, 2000. p. 127
[61] Márai, Sándor. *Ég és föld (Heaven and Earth)*. Helikon Publishing House, Budapest, 2001. pp. 28, 96
[62] Bosmans, Phil. *Szívbalzsam (Heart Balm)*. Szeged 1996, (Translated by Éva Rónaszegi), Agapé, Ferences Nyomda és Könyvkiadó Kft. p. 19.

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