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Stanko Gerjolj
University of Ljubljana, Slovenia

Violent Computer Games Pose a Challenge to Education Today

Abstract

Violent computer games are becoming an increasingly common phenomenon of leisure activities among children and the young. Most researchers and practical educators consider them a dangerous phenomenon that encourages violence in everyday life. A kind of cyclic round goes from children who, due to a lack of sensitive communication, quickly feel certain tensions and quench them by resorting to media violence where computer games take the lead in the modern environment. Educators suggest the creation of situations where children and adolescents can speak out and express their pain in different ways. An in-depth expression of children's and adolescents' experiences does not only change their feelings, but extends to the changes at the level of neurobiological functioning. Adults, especially parents, help children mostly in overcoming violence if, in sensitive communication, they radiate happiness with their own lives and the ability to solve problems and give signs of unconditional acceptance and love. In such communication, children and young people re-experience their parents and other educators as strong personalities and moral authorities whom they love and respect.

Keywords

Violent computer games, violence, imagination, intelligences, sensitivity, emotional education, moral education.

The market is flooded with computer games containing violence. They might be "only" games, yet they wield considerable impact on the behavior of children and adolescents, a fact not to be ignored by modern education.

The roles of "heroes" of computer games raise certain empathy in a child and an adolescent which they fit in the context of hostilities. Many "heroes" and "enemies" are designed in such a way that a player with a little imagination is able to find a connection with the real world. It should also be noted that computer games addiction interferes with the neurobiological and neuropsychological status of children and adolescents. In conflict situations this can lead an individual into a state in which "they do not know what they are doing".

Blaming computer games for all the violence among children and adolescents would be wrong. Discouraging and preventing the use of such media is only one of the methods available to education in surmounting the reasons for aggressive behavior of children and adolescents. A far greater challenge is how to offer children and adolescents the opportunity to resolve conflict situations beyond the logic of computer violence. If we have realized that violence generates biological processes in the body, then the answer to it is not possible only by using "words", but by discovering methods which reach the "biology" as well and provide therapeutic assistance to body, soul and spirit.

1. Desensitizing children and the young

Computer games may be only one form of media violence, yet they occupy an important place among the current problems of education. Children and adolescents spend a lot more time playing computer games than following other forms of violence in the media. It should also be noted that playing games includes active involvement in acts of violence, leading to greater negative impact than passively watching violent films[1]. In addition, in other media shorter violent events usually follow one another as part of the story, while in a computer game one takes part in the violence from beginning to end[2].

We may console ourselves saying that it is "just a game", however, children get so fully involved that on one hand, they gradually "do not know what they are doing", and on the other hand, they gradually and subconsciously identify with the "heroes" of games, in which, to overcome the "enemies", they employ all sorts of intrigues and twists allowed by the program. Cautiously, yet convincingly, the

[1] R. Steckel, *Aggression in Videospielen. Gibt es Auswirkungen auf das Verhalten von Kindern?*, Münster 1998, Waxmann Verlag, p. 58.

[2] M. Kunczik, A. Zipfel, *Medien und Gewalt. Die Wirkung von Gewalt in Computerspielen*, in: *TV Diskurs - Wissenschaft*, Baden-Baden 2006, Nomos Verlag, Nr. 36, p. 65.

experts are warning - especially in conjunction with other forms of violence - that such programs emotionally desensitize children and young people[3].

1.1. Imagined reality

Excellent computer graphics technology makes it possible for the player to feel like they are in the real world, with the only exception being that one has "more lives". Players are introduced to a kind of imagined reality with futuristic themes where they apply futuristic weapons and use futuristic logic[4]. The player moves in a special "computer world", which consists of a unique mixture of reality and imagination and is a kind of "half reality" - "Half-Life"[5]. Violent topics become even more real when, behind the imagined reality, real problems are hidden. The U.S. games in particular are often charged with political connotations and conceived in such a way that the struggle between the USA and their enemies is hidden in the background[6]. When the game takes place entirely in the real streets of New York, one is involved differently, than when the game goes on somewhere in the universe.

If the adults in the research interviews usually claim that it is all "just a game" and know how to emotionally distance themselves from the events on the screen, it is different with children. In particular, for children up to age five, who are not yet able to perceive the differences between the real and virtual world[7], playing violent computer games is dangerous undertaking. No doubt such games engage teenagers during adolescence very emotionally, because they experience the problems of life and the world more intensely and dramatically than adults[8]. In addition, we know that violence-related events and experiences in childhood and youth accompany humans throughout their lives and often require considerable effort for their recovery. After some in-depth reflection even adults recognize that

[3] D. Grossmann, G. DeGeatano, *Stop Teaching our Kids to Kill*, New York 1999, Crown Publishers, p. 26-28.

[4] J. Suler, *Computer and Cyberspace Addiction*, "International Journal of Applied Psychoanalytic Studies" (2004) Nr. 1, p. 359-362.

[5] M. Gehlen, *Die Problematik der Gewaltdarstellungen im Computerspiel am Beispiel des Ego-Shooters "Gunman Chronicles"*, Köln 2002, University of Applied Sciences Cologne, p. 106.

[6] D. Grossmann, G. DeGeatano, *Stop Teaching our Kids to Kill*, New York 1999, Crown Publishers, p. 81.

[7] D. Baake, *Die 0-5 jährigen. Einführung in die Probleme der frühen Kindheit*, Weinheim und Basel 1999, Beltz Verlag, p. 355-357.

[8] D. Rahm, *Gestaltberatung. Grundlagen und Praxis integrativer Beratungsarbeit*, Paderborn 2004, Junfermann, p. 332.

they can truly enjoy the game only when they "get absorbed" and become a part of the game[9].

1.2. Can violent computer games be training for real violence?

In the centre of the activity is an individual who initiates the game and instantly feels an incredible power. In particular, this applies to children and adolescents. By training, one harmonizes with the computer so strongly that movement fit to it like a "glove on the hand"[10], and they jointly control the enemies. The sensomotoric synchronization is so involving that the person and the computer become "one team". Graphic representation and music effects aid this significantly. It would be too simplistic to say that violent computer games are "exercises for killing"[11], yet common sense indicates that accustoming to situations which involve killing, and experiencing such circumstances many times over, cannot remain without consequences[12].

Most computer games require the player to think and act quickly; many are intertwined with attractive and adventurous stories[13]. Such interplay of real political and other life problems as a link to adventurous experiences works motivationally and encourages players to take the game more seriously. At the same time, a computer strategy of punishment and reward of the player serves as a motivational tool, whereby the most heartless violence receives the greatest reward[14].

Some experts justify violent computer games with the argument that it is a "fight against evil" which often holds true. Violence and violent problem-solving, however, are still in the centre. Imagined real problems may put the players in a sort of "trans" and so involve them in the scene that it is uncertain how they would react in real life in a similar situation[15].

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[9] M. Gehlen, *Die Problematik der Gewaltdarstellungen im Computerspiel am Beispiel des Ego-Shooters "Gunman Chronicles"*, Köln 2002, University of Applied Sciences Cologne, p. 114.

[10] J. Fritz, *Was sind Computerspiele?*, in: J. Fritz, W. Fehr (eds.), *Handbuch Medien: Computerspiele - Theorie, Forschung*, Praxis, Bonn 1997, Bundeszentrale für politische Bildung, p. 190.

[11] T. Feibel, *Killerspiele im Kinderzimmer. Was wir über Computer und Gewalt wissen müssen*, Düsseldorf-Zürich 2004, Walter Verlag, p. 143-144.

[12] J. P. Carnes, *Ne recite temu ljubezen*, Ljubljana 2006, Studio Moderna, p. 102-103.

[13] H. Esser, T. Witting, *Intermodiale Transferprozesse von und zur virtuellen Welt*, Köln 1996, Fachhochschule für Sozialpädagogik, p. 39.

[14] M. Kunczik, A. Zipfel, *Medien und Gewalt. Die Wirkung von Gewalt in Computerspielen*, in: *TV Diskurs - Wissenschaft*, Baden-Baden 2006, Nomos Verlag, Nr. 36, p. 64.

[15] Live military exercises are certainly different from violent computer games. Nevertheless, military exercises use the imagination of reality, because there are no real enemies. I remember

Even if, as already said, it is inappropriate to draw parallels and simplified comparisons, the fact remains that violent computer games draw a person in a situation where the game can be solved exclusively with violence. Frequent playing can give sufficient "training" for the real life as well, though some existing empirical studies do not indicate a direct link between violent computer games and violent acts[16]. However, there are already well supported empirical studies reporting an above average tendency of players to behave aggressively[17]. Moreover, a higher tendency for violent behavior has been recognized in the players of more violent games than in those who play less violent games[18].

Exploring the roots and causes of playing violent computer games brings us again and again to the social environment, which indirectly conditions the entry in the "computer world". Even when looking for constructive responses to violent behavior, we need to observe that "banning" is not the best way and often even has a counterproductive effect[19]. It is much better to suggest alternative forms of free-time activities, and above all provide creative and complete communication. In solving such problems it is necessary to provide in-depth reflection and psychological-pedagogical processing, which extends up to neurobiological and neuropsychological depths. Both in terms of prevention and curative in teaching and psychological counseling, plain intellectual, convincing, and cognitive learning is not enough. We need to establish an in-depth and comprehensive communication with a child and /or an adolescent[20]. It is not about additional neuropsychological manipulation, but about neurobiological "cleansing" and disburdening, which allows children and adolescents more independent and informed reactions and makes them less attracted to manipulative offers.

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a military exercise with several hundred soldiers "marching", singing violent military songs, and at the command chasing away the "riflemen". Without the slightest hesitation, we started to shoot at targets that had emerged as living people. When I thought how I would have reacted if, instead of targets children had occurred, I had shot a few times already.

[16] T. Feibel, *Killerspiele im Kinderzimmer. Was wir über Computer und Gewalt wissen müssen*, Düsseldorf-Zürich 2004, Walter Verlag, p. 142.

[17] W. Frindte, S. Geyer, *Aggression, Aggressivität und Computerspiele*, in: S. Trepte, E. H. Witte (eds.), *Sozialpsychologie und Medien*, Lengerich 2007, Pabst Science Publishers, p. 179, 188.

[18] W. Frindte, S. Geyer, *Aggression, Aggressivität und Computerspiele*, in: S. Trepte, E. H. Witte (eds.), *Sozialpsychologie und Medien*, Lengerich 2007, Pabst Science Publishers, p. 191.

[19] M. Kunczik, A. Zipfel, *Medien und Gewalt. Die Wirkung von Gewalt in Computerspielen*, in: *TV Diskurs - Wissenschaft*, Baden-Baden 2006, Nomos Verlag, Nr. 36, p. 69.

[20] T. Feibel, *Killerspiele im Kinderzimmer. Was wir über Computer und Gewalt wissen müssen*, Düsseldorf-Zürich 2004, Walter Verlag, p. 170-171.

2. "Intelligent" problem solving

Violent computer games are certainly only one of the elements which promote aggressive and violent behavior. Important for education are not only the negative effects, but also the reasons that lead children and adolescents to participate in violent communication. In this context, pedagogy and psychology seek ways of preventive and curative actions in education. Computer games with violent content, supported by strong emotional effects, affect even the neurological field.[21] Education is therefore also called to find appropriate positive motivations and responses. Contemporary theories and practices of intelligence can be of great help. Beside the cognitive, they also take into account the emotional and physical ways of learning and teaching which go deep enough to shift the violence focused life strengths to more sensitive and creative communications.

When it comes to intelligent problem solving, biological dimension of learning is also considered, because intelligences have their quite specific centers in our body. This means that learning affects the development of our organism, which of course is nothing new. More recent are the emphases which in education give more importance to the body. The past approaches know the education of the "body", but on one hand, such education was separated from the cognitive learning, on the other hand, both cognitive and physical learning lacked emotional dimensions.

Howard Gardner has contributed significantly to integration, actually, unification of the physical, mental, and spiritual learning. He understands the concept of intelligence as a family, where every "family member" has their own place and role. Each intelligence has its center in the brain and its own operating model[22]. Nevertheless, in solving problems, specific intelligences are complementary and strongly intertwined[23]. According to Gardner, an intelligent learning includes all three dimensions: physical, mental, and spiritual[24].

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[21] S. Rozman, *Peklenska gugalnica*, Ljubljana 2007, Mladinska knjiga, p. 34.

[22] R. J. Sternberg, A. L. O'Hara, *Intelligence and Creativity*, in: R. J. Sternberg (ed.), *Handbook of Intelligence*, Cambridge 2000, University Press, p. 613-614.

[23] F. J. Kihlstrom, N. Cantor, *Social Intelligence*, in: R. J. Sternberg (ed.), *Handbook of Intelligence*, University Press, Cambridge 2000, p. 364.

[24] In his conceptualization of intelligence, Gardner still promotes a fairly cognitive aspect of learning, but he is successfully complemented and builds on by other experts of education who give more importance to the holistic education. Their research and interpretation of "intelligent" learning are more and more compatibly interweaved with the role of the emotional and moral, as well as religious and spiritual dimensions of life. W. Prügger, *Religionsunterricht absierend auf der Theorie der multiplen Intelligenzen*, Graz 2007, KPH, p. 28.

In addition to the seven key intelligences (verbal-linguistic, logical-mathematical, spatial-visual, musical-rhythmic, bodily-kinetic, intrapersonal, and interpersonal), he proposes, in particular in more recent literature, the "naturalistic intelligence", which puts us in the context with the environment, particularly with nature and its laws, and allows us to "understand" and work with the dynamics of this context[25]. Some other authors classify in this set, the so-called "practical intelligences", which in addition to social, among others, include also the emotional and moral intelligences[26].

A prominent researcher of intelligence Robert Sternberg refers to three aspects of functioning of intelligence: analytical, practical, and creative[27]. In everyday life problems, practical intelligence is the most active[28], which builds on the experience (know-how) and in many cases has the characteristics of "wisdom"[29]. Its power is not based on fluid abilities, but results from crystallized abilities, i.e., the ability of semantic integration and meaningful conclusion[30]. In this group, some also include social intelligence, identified already in the 1920s as a specific area by E. L. Thorndike, and defined as "the ability to understand and manage men and women, boys and girls - to act wisely in human relations"[31]. Greenspan attributes to it three hierarchically arranged components of activity: 1) social sensitivity, reflected and role taking, and social interference, 2) social insight, including social comprehension, psychological insight, and should judgment, 3)

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[25] H. Gardner, *Intelligence Reframed. Multiple Intelligences for the 21st Century*, New York 1999, Basic Books, p. 48-52.

[26] In connection with the ethical, moral and religious learning, Gardner also develops the concept of existential or philosophical intelligence. H. Gardner, *Intelligence Reframed. Multiple Intelligences for the 21st Century*, New York 1999, Basic Books, p. 76. As regards to the contents, he always assigns most of these personality dimensions - including the emotional dimension of life - to intrapersonal and interpersonal intelligence. H. Gardner, Howard, *Frames of Mind. The Theory of Multiple Intelligences*, New York 1993, Basis Books, p. 239; H. Gardner, *Intelligence Reframed. Multile Intelligences for the 21st Century*, New York 1999, Basic Books, p. 43.

[27] R. J. Sternberg, A. L. O'Hara, *Intelligence and Creativity*, in: R. J. Sternberg (ed.), *Handbook of Intelligence*, Cambridge 2000, University Press, p. 612.

[28] K. R. Wagner, *Practical Intelligence*, in: R. J. Sternberg (ed.), *Handbook of Intelligence*, Cambridge 2000, University Press, p. 383-386.

[29] R. J. Sternberg, *Intelligence and Wisdom*, in: R. J. Sternberg (ed.), *Handbook of Intelligence*. Cambridge 2000, University Press, p. 632.

[30] K. R. Wagner, *Practical Intelligence*, in: R. J. Sternberg (ed.), *Handbook of Intelligence*, Cambridge 2000, University Press, p. 390.

[31] F. J. Kihlstrom, N. Cantor, *Social Intelligence*, in: R. J. Sternberg (ed.), *Handbook of Intelligence,* Cambridge 2000, University Press, p. 359.

social communication, subsuming referential communication and social problem solving[32].

Searching for answers to education challenges that are associated with playing violent computer games, we come across the field of social intelligence and social education. The reasons why children and young people crave for violent computer games, as well as ways of eliminating the consequences of playing, can be discovered in the social dimension of life and education[33]. The lack of in-depth communication, first of all, draws the child and teenager to a computer where they look for virtual substitutes, and filled with frustration and anger, snatch at violence, and then the aggressive communication makes those rare opportunities for communication, sought for by their overburdened parents, even more difficult. Thus, even more to parents than adolescents and children, violent games become an emotional and moral problem, which they try to settle with the child, when in fact they needed to change first. It is often shown that playing violent computer games is due to emotional problems and moral difficulties of parents and not of children[34]. It is true that in these areas parents learn sentient communication with children, if we are only ready to change. What one remembers most is what one teaches[35]. Socially sensitive communication is always changing all the participants, particularly in emotional and moral fields.

2.1. Emotional education - the first key to overcoming violence

"Motivation, emotion, and cognition" are the three basic mental operations[36]. In particular, feelings are becoming more prominent in the last decade. Mere strong emotional expressions, however, do not guarantee good emotional education. On the contrary, uncontrolled and aggressive sentiments may be detrimental to life. Detrimental to life is also emotional control. Contemporary moral education builds on the concept of emotional intelligence that can be defined as "ability to

[32] F.J. Kihlstrom, N. Cantor, *Social Intelligence*, in: R.J. Sternberg (ed.), *Handbook of Intelligence,* Cambridge 2000, University Press, p. 373.

[33] W. Frindte, S. Geyer, *Aggression, Aggressivität und Computerspiele*, in: S. Trepte, E.H. Witte (eds.), *Sozialpsychologie und Medien*, Lengerich 2007, Pabst Science Publishers, p. 180.

[34] S. Rozman, *Peklenska gugalnica*, Ljubljana 2007, Mladinska knjiga, p. 86.

[35] D. Lazear, *Seven ways of knowing - Teaching for Multiple Inteligences*, Arlington Heights/ Illinois 1991, IRI, p. 117.

[36] Some psychologists mention four major forms of mental activity and add also conscience to the above three. D.J. Mayer, P. Salovey, D. Caruso, *Models of Emotional Intelligence*, in: R.J. Sternberg (eds.), *Handbook of Intelligence*, Cambridge 2000, University Press, p. 397.

perceive and express emotion, assimilate emotion and thought, understand and reason with emotion, and regulate emotion in the self and others"[37].

Neuropsychology teaches that emotional functioning uses at least five brain centers. Visual perception stops first in the "thalamus", which it "translates" into the language of the brain and sends it forward to visual cortex, which then spreads it across further interested centers. Much of the information of emotional perceptions pulls up in "Amygdala", the center and a kind of storehouse of emotional experiences. If the visual perception has strong emotional weight and requires swift reaction, part of the perceptual information takes a shortcut from the thalamus to Amygdala[38], which means that this information ignored the visual cortex. Thus, the Amygdala received unprocessed information and felt the "emergency" or extreme danger. In such cases, a person reacts quicker than they know "why and how" it is best to proceed. The information received by Amygdala via shortcut causes a kind of havoc state and these precognitive emotions force a person to react instantly. Since the information is not processed, the reaction is rapid, but hasty and often inaccurate[39]. It can happen that precognitive emotions completely overwhelm us and lead us to a situation where "we do not know what we are doing".

Amygdala is also a place for remembering emotions. When we learn deliberate emotional behavior, Amygdala sends emotional signals to the "frontal cortex", with two brain centers called the "prefrontal lobes", which serve to further process the emotional experiences. On the basis of such processed emotional signals we make decisions and form emotional experience. The right "prefrontal lobe" stores the signals of negative emotions[40], the left "prefrontal lobe" is intended to control negative emotions and manage or prevent their "outbreaks"[41]. The cooperation of the two centers thus assumes the role of a "manager" of emotional feelings and emotional behavior.

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[37] D.J. Mayer, P. Salovey, *What Is Emotional Intelligence?*, in: P. Salovey, D. Sluyter (eds.), *Emotional Development and Emotional Intelligence: Implications for Educators*, New York 1997, Basic Boocks, p. 11.

[38] E. Jensen, *Teaching with the Brain in Mind*, Alexandria 2005, ASCD, p. 16.

[39] We can get scared of a twisted rope as much as of a snake and at the sight of it "jump away" or "attack" similarly. In the case of contact between the real hardship and a computer game it cannot be excluded that the "trained" reactions outrun our thought as well.

[40] The entire right brain hemisphere tends towards holistic thinking and processed information in random order. E. Jensen, *Teaching with the Brain in Mind*, Alexandria 2005, ASCD, p. 14. Negative and painful emotions probably affect one more, so it is understandable that – taking into account the role and mode of action - the right prefrontal lobe is more emotional than the left.

[41] D. Goleman, *Emotionale Intelligenz*, München 1997, DTB, p. 47.

As a storehouse of emotional memories, Amygdala frequently uses the experiences of the early childhood. Among other reasons why they became so impressed in our memory is because we experienced them before we were able to speak. Thus they remained in a "raw state" because we have never verbalized them. As a "defensive principle" they operate stronger than processed and verbalized emotions[42]. It may happen that in average risk situations we react extremely aggressively, as this may remind us of an unprocessed and unarticulated fear from the early childhood. The reason for excessive aggression is therefore not in the irrational assessment of the current situation, but the inability of being able to rationally process the emotional feelings because of a possible similarity to negative feelings from the early childhood[43]. In such situations, the present reaction is similar to the reaction in dangerous circumstances when one was a baby and could not talk yet. The only difference is that in the later years the same emotional power has far more physical strength available and quite a few automatically learned reactions.

Emotional education, therefore, calls for moral dimension point-blank. Its characteristic is not imposing normative postulates, but the ability to channel emotional and other life forces in the direction of lasting service to human life. In contact with the emotional intelligence in particular, the moral intelligence has its roots in the primary relationship with the mother, which extends all to the prenatal period. Positive self-esteem, based on the in-depth trust and the feeling that the person is already as a baby capable of - not in the form of aggression, but on the basis of basic confidence - overcoming fears and solving problems is a fundamental category of moral education in the early childhood and has a significant impact on the development of conscience and moral sense. Emotional dimension of life is therefore always intertwined with the moral dimension. Thus emotional and moral education can grow and develop only "hand in hand" but also fall and dry up[44].

Modern knowledge gives us encouraging news that emotional life is after all not as dependent on early childhood as it has long been thought. With thematic approach and intensive work on oneself, even during periods of adult life, one is

[42] D. Goleman, *Emotionale Intelligenz*, München 1997, DTB, p. 42.

[43] S. Rozman, *Peklenska gugalnica*, Ljubljana 2007, Mladinska knjiga, p. 107.

[44] Modern neuropsychological research confirms that autism, superactivism and many other outstanding reactions are clearly linked to social and thus also to emotional and moral education. F. J. Kihlstrom, N. Cantor, *Social Intelligence*, in: R. J. Sternberg (ed.), *Handbook of Intelligence,* Cambridge 2000, University Press, p. 374.

to repair the relationship with themselves and rearrange emotional life[45]. Moral intelligence, namely, reflects life through the glasses of the last sense and so gives meaning also to emotional feelings and functions[46].

In connection with the issue of violent computer games I see emotional education in both preventive and curative effect as playing a key role. In the past, parents devoted on average more time to their children, but emotional education was often hard and imbued with emotional repression. Today, being overburdened, parents have little time, especially for children, too little patience for emotionally sensitive interest in them. In their "jittery", parents either "allow everything", or violently "suppress" them. In both cases, children bring into the latent and adolescent years numerous unprocessed and unspoken situations and experiences, which keep them charged and lead them first to search for violent scenes, and then also in their own violent acts.

The violence-charged games offer children and adolescents enough opportunities to both monitor as well as express violence, which, judging by the research reflects also in their behavior[47]. Thus they somehow channel their aggression charge, which is only intensified by "computer exercises". Children and adolescents need neither moralistic teachings nor prohibitions or commands, but an opportunity for sensitive and confidential communication, in which they are able to thoroughly speak out. Of course we cannot simply tear them out of their life context and invite them to talk, but it is necessary to prepare an appropriate situation for this. Finally, children are less capable of verbally expressing themselves today than in the past, but have become - also because of computer games - more visually apt in both "reading" visual images, as well as in expressing their own life contents through them. In this context, "Gardner's" visual-spatial intelligence can be of great help. Once - perhaps with an appropriate musical background and through visual meditation - they draw their life situation, they will also confess and be relieved. Teenage years in particular, are appropriate for this kind of educational steps, because teenagers do not wish their childhood frustrations to accompany them throughout their lives[48].

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[45] J. C. Showers, *Self-Organization in Emotional Contexts*, in: P. J. Forges (ed.), *Feeling and Thinking. The Role of Affect in Social Cognition*, Cambridge 2000, University Press, p. 284.

[46] R. Coles, *The Secular Mind*, Princeton 1999, University Press, p. 148-149.

[47] W. Frindte, S. Geyer, *Aggression, Aggressivität und Computerspiele*, in: S. Trepte, E. H. Witte (eds.), *Sozialpsychologie und Medien*, Lengerich 2007, Pabst Science Publishers, p. 179-180.

[48] In my present work with the teenagers (for about twenty years I have been accompanying up to 100 Holy Confirmation candidates at the so-called Confirmation spiritual exercises, where at the

As mentioned above, many psychologists add to the three fundamental functions of mental activity the fourth one which is conscience. The above-mentioned cooperation between the left and right "prefrontal lobes" creates a sort of crossroads, where feeling and cognitive thinking come into contact[49].

It is to be assumed that in this very centre, as a kind of symbiosis of cognition and feelings, a moral experience or moral intelligence is expressed. It probably has a decisive influence on the creation of emotional decisions, and thus the creation of conscience as the essential component of moral intelligence[50]. The opportunity of confession gives adolescents a chance to feel the moral dimension of life more deeply. Children love their parents and they are almost unreservedly willing to forgive, but they want to tell them what they did wrong up to that time and what hurts them. Adolescents feel their own incompleteness and vulnerability, and therefore they cannot stand having "perfect parents" because they know that they are not and cannot be. Unconditional love is not a "love without errors", but a love with and despite the mistakes[51].

2.2. Moral education - another key to overcoming violence

Besides many scientific discoveries which include computer systems but also violent games, the developed world has noted that the 20th century was not only a century of progress, but it also contained decades of moral erosion[52]. This is most likely related to the crisis of authority, which began to disappear, especially in the second half of the 20th century. For a holistic, which means also moral development, the young need authority - both in the role of values application, as well as in the role of transparent requirements setting[53]. Moral education is based on the preventive and curative role of authority. In both cases, of course, the authority that derives from arguments and strong personalities, and is not an arrogant expression of an institutional power is meant. Strong institutions will

beginning and at the end they share about their life expectations), I have noticed that their vision of life after the "confession" is much more optimistic than before it.

[49] D. Goleman, *Emotionale Intelligenz*, München 1997, DTB, p. 48-49.

[50] In the light of moral and emotional education it is interesting and very useful to observe the increasingly accepted view that the synthesis between cognition and emotionality will increase in the learning processes. P. J. Forgas, *Feeling and Thinking. Summary and Integration*, in: J. P. Forges (ed.), *Feeling and Thinking. The Role of Affect in Social Cognition*, Cambridge 2000, University Press, p. 388-389.

[51] S. Gerjolj, *Der Engel Rafael. Biblische Pädagogik als Antwort auf Lebensfragen*, München 2009, Don Bosco Verlag, p. 17.

[52] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 46.

[53] R. Coles, *The Secular Mind*, Princeton 1999, University Press, p. 142-143.

continue to play a role in the development of moral intelligence in the future. Their effectiveness will probably, unlike in the past, depend on the active, critical and powerful personalities[54].

"Moral intelligence is the capacity to understand right from wrong"[55]. Under the aspect of practical intelligences, these abilities transform into virtues in the educational processes (Virtues). To what extent these qualities are really intelligent and smartly transmitted, tells us irrefutably the emotional intelligence which is a unique "form of judgment"[56].

A moral intelligence researcher Michele Borba relates the contents of moral education to seven main virtues: Empathy, Conscience, Self-Control, Respect, Kindness, Tolerance and Fairness. The first three - Empathy, Conscience, and Self-Control - represent the "moral core" of moral intelligence[57].

Empathy, as "the ability to identify with and feel another person's life concerns"[58], is a kind of key to successful and sensitive human communication. The foundations of empathy as moral and emotional abilities are already laid in the first three years of a child's life, when children experience a level of satisfying their emotional needs[59]. Children learn the majority of the main characteristics of empathetic feeling and activity up to the early puberty[60], although their findings intensify and deepen in particular at the experiential level during the periods of adolescent growing up[61]. In this period empathy may even be exaggerated and therefore slightly distorted, as young people, in connection to turbulent emotionality mess and diffusion of identity, over-activate their imagination which often departs from reality[62]. Research findings suggest that as a result of modern, technical civilization, people - women and men - have lost a lot of verbal forms of expression of spiritual and mental contents[63], which are urgently

[54] R. Coles, *The Secular Mind*, Princeton 1999, University Press, p. 165.

[55] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 4.

[56] C.M. Nussbaum, *Upheavals of Thought. The Intelligence of Emotions*, New York 2001, Cambridge University Press, p. 22.

[57] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 9.

[58] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 18.

[59] E. Jensen, *Teaching with the Brain in Mind*, Alexandria 2005, ASCD, p. 23.

[60] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 37.

[61] It is worth noting that - at least in the Western cultures – women are capable of somewhat greater empathy than men. Similar characteristics are evident in the emotional characteristics and non-verbal communication, which is crucial for empathy. D. Kindlon, M. Thompson, *Raising Cain. Protecting the Emotional Life of Boys*, New York 1999, Ballantine Publishing Group, p. 195.

[62] E. Jensen, *Teaching with the Brain in Mind*, Alexandria 2005, ASCD, p. 31-32.

[63] T. Shachtman, *The Inarticulate Society*, New York 1995, The free Press, p. 37, 116-117.

needed for empathetic communication[64]. Modern means of communication have for the time being not contributed to the enrichment of such terminology. Modern communications technology has changed verbal and non-verbal expressions of mentality and spirituality - including emotionality and empathy - into technical abbreviations and simplifications, which is reflected also in the technical and "amoral" approach to resolving contemporary ethical and moral problems[65].

Conscience, as the inner voice that tells us what is good and what is bad, is the cornerstone of any morality[66]. Conscience formation is undoubtedly imbued with many historical, cultural, and religious factors[67], in terms of intelligence following our conscience also involves the ability of critical contextual reflection - not in terms of "situational morale", but in terms of intercultural dialogue. Conscience listens also to other, outside voices[68]. Here moral intelligence finds expression since the ability of internal moral insight, in shaping moral views and attitudes, is crucial. Moral education is not giving moral themed sermons, but first of all, making one sensitive to the value of life and creation[69]. Child's first experiences of how to follow conscience are usually formed on the basis of positive reactions of their mother[70], which are built on the principle of non-violent contextual experiential learning. Psychologists consider school-entry time a new and most effective beginning to form conscience[71].

Self-Control is the third virtue of "moral core", which is more practical and more emotional than the first two. The three virtues are complementary and supportive, but if they are neglected in child-rearing process, children can become "a time bomb waiting to explode"[72]. In terms of moral education, self-control is not intended to suppress emotions, but to prevent violent reactions. We

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[64] D. Goleman, *Emotionale Intelligenz*, München 1997, DTB, p. 137.

[65] AIDS, for example, is a disease to which "science" is trying to find purely technical answers. Scientists address the problem of the disease morally only when they struggle with moral positions and institutions.

[66] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 51.

[67] S. Gerjolj, *Vzgoja vesti v pluralni družbi*, in: A. Žerovnik (ed.), *Etična vzgoja*. Ljubljana 1997, Družina, p. 18.

[68] R. Coles, *The Secular Mind*, Princeton 1999, University Press, p. 105.

[69] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 55; E. Jensen, *Teaching with the Brain in Mind*, Alexandria 2005, ASCD, p. 27.

[70] S. Gerjolj, *Vzgoja vesti v pluralni družbi*, in: A. Žerovnik (ed.), *Etična vzgoja*. Ljubljana 1997, Družina, p. 19.

[71] The expanded living space and new intellectual abilities set school or latent period as the "age of the conscience". R. Coles, *The Secular Mind*, Princeton 1999, University Press, p. 98.

[72] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 83.

might believe that it is sometimes good to have a "quarrel", because aggressive outbreaks in conflict situations would make us feel better; such feelings are deceptive and increase the need for aggression in our emotional centers[73]. A non-aggressive articulation of aggression - in the form of words, images, games, physical activity, or others - is much more cathartic than the aggressive discharge of an aggressive individual.

Respect is a virtue reminiscent of God's fourth commandment in Christian tradition. This command is intended, first of all, to parents and then to children. Only on the basis of a respectful attitude of parents to children, children can learn to respect. The first and decisive step towards strengthening moral education regarding respect is made when we ourselves respect the child.

Kindness is the "result" of empathy, partly also of other presented virtues, and takes care of the well being of others[74]. Friendly communication - both verbal and non-verbal - is an important dimension of moral and emotional education.

Tolerance first teaches us to respect and accept in principle and then to allow and even encourage diversity, in particular to overcome stereotypes and prejudices[75]. In conjunction with other dimensions of moral education this virtue, of course, does not include only 'bearing with' another and otherness, but is about creative search of ways of co-existence and forms of cooperation.

Fairness is a virtue intended to foster justice in the framework of moral education[76]. Fairness allows open, ongoing and uncomplicated communication.

I am convinced that only a moral and emotionally intelligent person may have an ongoing feeling "that it was good" and only a morally responsible individual is able to conclude his life with a sense of "and see, it was very good". In this context, the future, despite the development of scientific knowledge, can not only escape moral challenges, but they will - also in terms of moral intelligence - grow in importance[77]. People's cognitive and secular development is already too advanced to be able to survive without a "heart" or moral intelligence. In this context, young people call for redefinition of education, in fact, for a new "philosophy of education" where we treat each other "such as we are", without moralistic concealment and pretence, and at the same time take our share of responsibilities in our education. The young do not want guidelines for how to live from the adults, but long for good examples of our adult lives. When

[73] D. Goleman, *Emotionale Intelligenz*, München 1997, DTB, p. 90.

[74] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 162.

[75] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 201.

[76] M. Borba, *Building Moral Intelligence*, San Francisco 2001, Jossey Bas, p. 237.

[77] R. Coles, *The Secular Mind*, Princeton 1999, University Press, p. 188-189.

they feel that we are able to solve our problems, they themselves will find ways to resolve their problems. Included in these efforts is, of course, the legitimate desire for unconditional acceptance and love. Simply put, this "new philosophy" is an "inclusive pedagogy" which loves diversity so that we may appropriate it to our heart.

"A new philosophy of education" presupposes a sensitive, in-depth, positive and creatively optimistic communication. Not only a negative and aggressive, but also a positive in-depth communication has an effect on our body. Neurobiology notes that any communication converts into brain signals that affect behavior, which again conditions our communication[78]. This means that positive communication trains one for better relations, while negative and aggressive communication robs us even of those sensitive communication skills that we have already had[79]. In this context, Jesus' words hold true: "To anyone who has, more will be given and he will grow rich; from anyone who has not, even what he has will be taken away" (Matthew 13.12).

A neurobiologist and psychotherapist Joachim Bauer mentions the "genial trio" of brain signals or hormonal parts, which through communication have a crucial impact on our lives and work: dopamine, in charge of work and persistence; opioide, caring for the physical and emotional well-being, and oxytocin which influences our ability to bond with others and facilitates positive feelings in communication[80]. In any case, such philosophy, and in particular practice, of education can lead to positive developments in surmounting and overcoming violence not only among the young but also among the adults.

[78] J. Bauer, Joachim, *Lob der Schule. Sieben Perspektiven für Schüler, Lehrer und Eltern*, Hamburg 2007, Hoffmann und Campe, p. 15-16.

[79] Stress, fear of failure and humiliation are all »the killers of learning«. J. Bauer, Joachim, *Lob der Schule. Sieben Perspektiven für Schüler, Lehrer und Eltern*, Hamburg 2007, Hoffmann und Campe, p. 37.

[80] J. Bauer, Joachim, *Lob der Schule. Sieben Perspektiven für Schüler, Lehrer und Eltern*, Hamburg 2007, Hoffmann und Campe, p. 19.

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