

[DOI: 10.20472/IAC.2015.020.045](https://doi.org/10.20472/IAC.2015.020.045)

GALINA JASEČKOVÁ

Žilinská univerzita v Žiline, Fak. human. vied, Slovakia

EVA AUGUSTÍNOVÁ

Žilinská univerzita v Žiline, Fak. human. vied, Slovakia

NEED OF MULTIDIMENSIONAL CRITICAL THINKING IN THE MEDIA COMPETENCE DEVELOPMENT

Abstract:

A characteristic feature of modern society is constantly expanding information space. Hidden information attacks have a negative impact on the lives of individuals and society in general. In this regard, the studies of critical thinking seem particularly important at present time. In our paper we present the project, which is devoted to the scientific, humanistic and practical aspects of multi-dimensional critical thinking and its application in the media competence development. The aim of educational part of this project is to build up an educational conception of selected courses by creating educational texts and to build up an e-learning support for concrete courses. In the scientific part the main goal of this project is formation of a system of creative scientific views based on knowledge of logic. The project is oriented first to students, university teachers, and also researchers from different areas of science, or people from arts to become familiar with the basic elements of a multi-dimensional critical thinking, which contribute to their media competence improvement and which may in turn reflect in its professional and scientific activities, but also in everyday life.

Keywords:

multi-dimensional critical thinking, logic, logical analysis, intellectual virus, media competence

The main goal of this project is systematization of knowledge and methods on multidimensional critical thinking, development of its theory and its applications to media competences, media education and communication.

Partial goals:

1. Evaluation of the offered solutions in the area of critical thinking and searching for new solutions based on multidimensional critical thinking.
2. Formation of methods that enable us to repel attacks of NLP, multi-level marketing, political and electoral propaganda and other methods to deprive a person his/her free will in Slovakia.
3. Analysis of intellectual and mental viruses (the multidimensional critical thinking is one of ways to get the immunity to mental viruses).
4. Launching a web portal aimed at MDCT.
5. Elaboration of theory of MDCT, its need for media competence development and their presentation in a form of scientific articles and documents.

Recent times offer the biggest variety of information sources, but we use to forget about the fact that quantity does not automatically mean quality. Information became standardized, the main sources are press agencies or official sources; the independence of the authors may become held back. Information broadcast to the public may depend on the media owners or other power or economical structures' interests as well as on huge amount of internet sources, often providing proofless and unfair information with a certain goal (financial, political, power etc.).

According to the study of the Iuventa Foundation (2011) called „ Youth and media - the level of medial literacy of young people in Slovakia“ almost 75 percent of high school students' parents let their children watch media without any time or content restrictions. Young generation has a problem to evaluate truth of the information due to big amount of unfiltered information, not only economical or political but even environmental, human rights- or globalization-oriented. This results to acute need to teach young generation to critically evaluate all the information. This ability becomes necessary in today's fast changing world.

Critical analysis is a set of procedures and abilities, usable in the evaluation of truth, or the rate of manipulation as well as in the interest analysis as used by the media. The base of critical analysis is active thinking about received information and its active evaluation. Information is the beginning of critical thinking only, not its result. The generation of own conclusions in the critical thinking process is not possible without sufficient primary inputs.

Critical thinking starts with questions or problems that need to be solved; it tends to solving of certain problems in general. Its basic assumption is thinking and specific questions analysis. Critical thinking searches for the logical arguments; i.e. it is important to support own solutions, attitudes or opinions created in the process of critical thinking by own and qualitative arguments.

Modern approach to critical thinking is based on research in different fields of psychology science (S. Rubinstein), pedagogy (C. Temple, J. Steele, K. Meredith), philosophy (Platon, K. Popper and others), logics (D. Hilbert, L. E. Brouwer). Many European universities and other organizations are trying to develop critical thinking ability. We can mention one of the best examples - the „Mission Critical“ project that was successfully developed for five years at least.

There exist many similar projects. One of the most known and successful project recently is Edward de Bono's „Lateral Thinking“. Edward de Bono is the author of „six thinkers' hats“ method working with the lateral thinking concept. The six thinkers' method is used successfully in different business fields (for example in multinational companies IBM, Shell, Ford, Siemens etc.) and is also a part of educational system schemes in many world countries. „Lateral Thinking“ project pays big attention to simple items of multi-dimensional critical thinking only, but it doesn't analyze human defensive mechanisms. Furthermore, it is being developed in the international advertisement system that emphasizes the positive aspects of this kind of thinking to achieve quick success. We see a big similarity with the ideas and techniques of so called - Neuro-linguistic programming (NLP) saying that NLP techniques acquisition helps to achieve crucial conclusions in any field and thus to contribute to successful, healthy and harmonic professional and private life.

Another project is A. Carter's „Programmers' Stone“ dealing with critical thinking aspects in wider meaning as previous project. Analysis of these projects leads to conclusion that they mainly focus on first level critical thinking only that helps us to find gaps and paralogsms in our own and others' thinking. But, this is not satisfactory for the reality perception as a whole.

We suppose that intellectual and psychical viruses' problems research is very important. Questions of psychical viruses were studied in book of Richard Brodie *Virus of the Mind*; intellectual viruses were studied in N. N. Nepejvoda's paper *Intellectual viruses*. Intellectual or psychical virus is described as an effect, invisibly expanding from mind to mind and infecting persons they usually don't register it even. Intellectual virus exists in science as well, when logical infection spreads from one research work to another, often invisibly, leading to hardly identifiable mistakes. We are confident that there exist many intellectual viruses recently. And the only way how to obtain immunity against them is to use multi-dimensional critical thinking methods.

We assume, that knowledge systematization in field of multi-dimensional critical thinking, development of related theory and its representations in research papers and journals, as well as the development of methods, that can increase ability to resist of many human manipulating forms (for example advertisement tricks, marketing, election campaigns, etc.), could increase the resistance of person and/or society against fundamentalist and totalitarian ideologies.

Development in multi-dimensional critical thinking can also permit us to use basic elements of multi-dimensional critical thinking in media competence improvement. Critical thinking doubts, distrusts, verifies, reviews, tries to understand more deeply.

Thereby, it protects us against misguide, manipulation, diversion or scams from the side of others. We live in the world, where

information comes to us from all sides: papers, television, billboards and internet. It is heavier to choose the most important one and adopt rational attitude to this information. Therefore human with critical thinking thinks about information, asks additional questions, quickly knows facts about information verity, insists on clearance of concepts (if we don't know what exactly is he/she talking about, then we don't know to assume an attitude), thinks about possibility of how to recognize information content, recognizes between options and facts, tries to verify information from different independent sources, reviews of information sources competency and confidence and realises that people may have different motivations to tell us what they talk about, or do what they do, and interests in who and what about is talking and the reason why is he/she talking about it (for whom it serves).

Our project is oriented at professors, university assistants, students and researchers in different areas of study on one side and artists on the other side. The aim of this project is to provide these persons with basic elements of multi-dimensional critical thinking that could be helpful in progress of theirs media working abilities. It helps to improve the competence to receive and to interpret medial contents and to be active in medial communication process. Above mentioned skills and abilities can be used in theirs applied, professional and research activities.

Application of multi-dimensional critical thinking ideas will be a contribution in education process, too. It will be helpful to students in deep utilization of wide knowledge range in the areas such as philosophy, applied mathematics, information systems and cognitive science. It is important to focus students' attention to interdisciplinary character of obtained knowledge. It is advisable to detache two types of mentioned characters. Structures isomorphism (accord between objects), meaning that it is possible to traverse from one representation to the other one, and structures homomorphism (relation of similarity) meaning that it is possible to consider one formalization as an approach to the another one. We need to know that most of information technologies problems and artificial intelligence field problems are deep philosophical and linguistic. Their solution from logical illiteracy point is wrong. We plan to launch an informational web portal aimed to above mentioned problems as a space for Professional and scientific discussions and opinions exchange. We assume that familiarization with multi-dimensional thinking would be useful to significant experts in commercial sphere, as well.

The common imperfection of projects dealing with MDCT is their ill- treatment of logic. They try to state repeatedly that logic is the instrument of routine direct thinking, that the logical criticism kills creative efforts and makes person highly constrained in his/her views and solutions. The traditional way of teaching and explaining Logic (philosophical and mathematical) stresses only its weakest sides. It trains students in one-dimensional, low-level

critical thinking which is, of course, extremely conservative and opposite to all creative moments. To develop a system of creative scientist and rationalistic views based on last advancements in logics and alternative to traditional rationalism is another goal of this project.

This project is unique in the aspect that the logic is reputed to be main theoretical instrument of multidimensional critical thinking. Logic is the first science which leads us into essentially new stage of rational reasoning. The primary task of the logician is to develop tools for the analysis and assessment of reasoning in every discipline and domain of human thought, tools to be used in reasoning through life's many complex problems and issues. The leading method used in this project is a logical analysis. Logical analysis attempts to use of mathematical logic for solving philosophical and methodological problems for clarification and formalization of linguistic expressions. Restating a philosophical problem in precise logical terminology is likely to reveal its possible solution. Hence, it aims to resolve problems which emerge as a result of linguistic confusion. And it emerges that formal expression of the problem is not identical with its content expression. Then we try to refine this expression and make it more adequately. Simultaneous the process of understanding of analyzed problem proceeds.

The role of the logic analysis is critical and systematic :

- 1) Enables us to avoid confusion in inaccuracies of everyday language.
- 2) Enables us to integrate in meaning of basic terms, assertions, assumptions with which we work.
- 3) Using logic methods enable us to show logic inferences which are not evident, and enable us to verify uniformity of our theories.

So in this time the logic analysis is often used in different periods of philosophical-methodological investigation – for strict formulation and comparison of competed concepts.

The method is applicable whenever it is thought useful and possible to reason deductively about some subject matter. It offers ways in which this can be done more precisely and reliably than might otherwise be possible. This increase in precision and rigour often brings with it a clearer insight into the subject matter, and enables results to be obtained which might otherwise have proved illusive.

The main difficulty here is necessity to combine formal and informal methods, to express results both in formal and informal languages, and together systematize huge amount of very distinct knowledge.

Acknowledgment

This paper is supported by grant KEGA 010ŽU - 4/2015.

Reference

- BARWISE, J. and J. ETCHEMENDY. *Situations and attitudes*. Stanford, 1985.
Mission Critical. San Jose: San Jose State University. Dostupné na:
<http://www.sjsu.edu/depts/it/>
- BONO, E. de. *Lateral thinking*. Boston; New York; London: Little, Brown and Company, 1999.
- BONO, E. de. *Simplicity: Síla jednoduchosti*. Praha: Triton, 2009.
- BRODIE, R. *Virus of the Mind: The New Science of the Meme*. New York: Integral Press, 2004.
- BROWNE, Neil M. and Keely M. STUART. *Asking the Right Questions: A Guide to Critical Thinking*. New Jersey: Pearson Education, Inc., 1994.
- CAPALDI, Nicholas and Miles SMIT. *The Art of Deception: An Introduction to Critical Thinking*. Amherst: Prometheus Books, 2010.
- NEPEJVODA, N.N. *Applied Logic*. Iževsk, 1997.
- NEPEJVODA, N.N. *Intelektualnyje virusy*. In: Logičeskije issledovanija, 2007.
- TEAYS, W. *Second Thoughts: Critical Thinking from a Multicultural Perspective*. Mayfield: Mayfield Publishing Company, 1996.