

CREATIVITY AND MORALITY

Gheorghe Săvoiu¹, Ion Iorga Simăn²

^{1,2} University of Pitești, 1st Targul din Vale, Pitești, Argeș, Romania,
¹e-mail: gsavoiu@yahoo.com; ²e-mail: ioniorgasiman@yahoo.com.

Abstract. *This article stems from the desire to identify one of the permanent, and sometimes even self-destructive, dangers that threaten the creativity or originality of any scientific research, a danger described by the apparently imperceptible boundary, which however does exist in the creative act, between immorality (going even to amorality) and morality, or between ethics and lack of ethics or morality. A brief introduction includes three major questions for this minimal investigation, which can find suitable answers in global official statistics. The article then enters into a major section, that of conceptualizing creativity and the logic of information ethics, where originality beyond novelty requires validation, utility and especially morality. The authors turn to the criterion of the unique and comprehensive moral principle “Be fellowish” as appearing in the book Diversity and Morality by Ung-II Chung / Yuichi Tei in collaboration with Shunji Mitsuyoshi. Several final remarks serve to outline a perspective situated within a relatively uncertain horizon of the parallel evolutions of creativity or originality and morality or ethics.*

Keywords: *creativity, originality, morality, ethics, information, research, Global Innovation Index (GII), World inequality report*

1. INTRODUCTION

Each researcher expresses, through the creative act, a natural desire of originality, in a personal note, benefiting from a specific dominant element, depending on his/her endowment, the accumulated experience, his/her spontaneous level of creativity, his/her intellectual manifestation, and even his/her psychic structure, which distinctively characterizes every person with real investigator skills.

One cannot speak of a universal type of scientific researcher, described as a standard creator, but rather of an almost infinite range of concrete types of researchers, described as specific individualities. What, in the final analysis, seems to be particularly important is one of the permanent and self-destructive dangers, a danger that threatens the researcher's creativity or originality, as well as that of any scientific research, imperceptibly outlined by the demarcation line between immorality (going even as far as morality) and morality, or between ethics and unethical behaviour. Exclusively deduced from the angle of personality, creativity or originality brings together features or psychological factors of a future performance to innovate, and generate unique approaches, as well as perspectives and angles that did not previously exist [1].

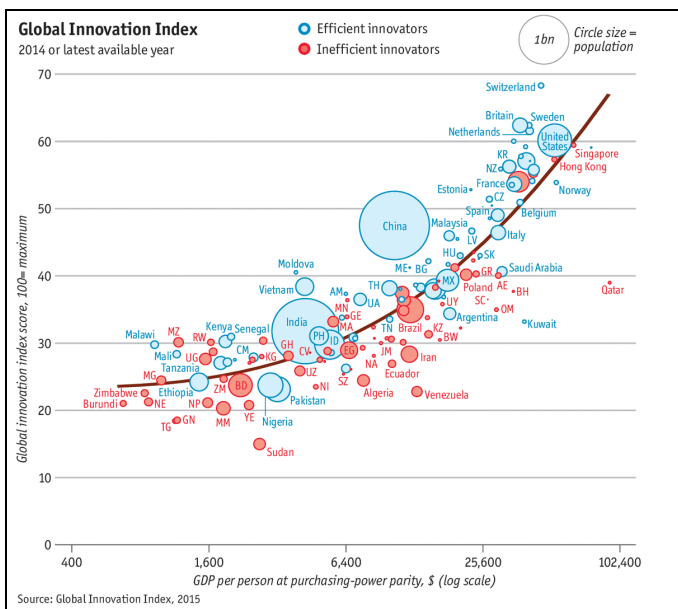
Starting from the excesses that are specific to concrete, peculiar approaches, the relevant and palpable criterion for evaluating creativity is often either the product of the detailed creation itself (project, invention, art object, innovation,

research report, book, article, paper, etc.), or a form of absolute synthesis that relies on spiritual continuity (theorem, lemma, method, model, etc.), which translates onto creativity, beyond its partial similarity with originality, a major element of social utility or community relevance [2,3].

Three preliminary issues are further exposed in the form of three simple questions that open up a presentation of creativity and morality, enlightening the whole range of issues described by their evolution, and authentic thinking [4]:

- Which are the tendencies of creativity in the structure of the world's population?
- Is there equality or inequality of chance in the field of creativity?
- What dominates creativity today: the culture of creativity in universities, research institutes, publishing houses and publications (valuable graduation theses, dissertations or doctoral theses, patents, or significant citations)?

The answer to the first question is provided by a study concerning the *Global Innovation Index* (GII), have redefined innovation in close connection with its usefulness of creativity [5], as a major approach, and especially with its efficiency or inefficiency, thus completing the originality with efficiency (Figure 1).

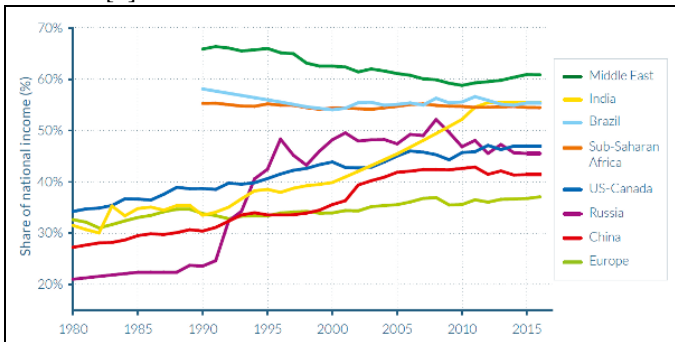


Source: *Global Innovation Index (GII) Report. (2017).* [online] Available at: <https://www.globalinnovationindex.org/> [Accessed in December 4, 2017]

Fig. 1. The duality of creativity seen from the angle of utility/inutility (efficiency/inefficiency) with an illustration centred on the Global Innovation Index (GII)

The inequality of access to creativity is globally accentuated, being caused, beyond education and resources, by the

assessment and value-oriented selection of appropriate projects, etc., as well as the polarization of population incomes (Figure 2), a trend with a very significant impact on all human activities in an economy, including scientific research [6].



Source: World inequality report (2017). [online] Available at: <http://wir2018.wid.world/> [Accessed in December 3, 2017]

Fig. 2. Polarizing developments in revenue generating major access gaps in research

Institutional creativity is balanced in those nations that have a stronger economic development, a deeper academic tradition and a more accelerated scientific research. The culture of creativity in universities remains dominant where the level of economic development is low, the research institutes do not have resources within the same spatial coordinates, and their publishing houses and publications do not achieve a number of equilibrium parameters. The last question can be answered by referring to the same *Global Innovation Index (GII)* study, according to which there is a clear tendency to increase the importance and dynamics of quotations in relation to patents (Figure 3):

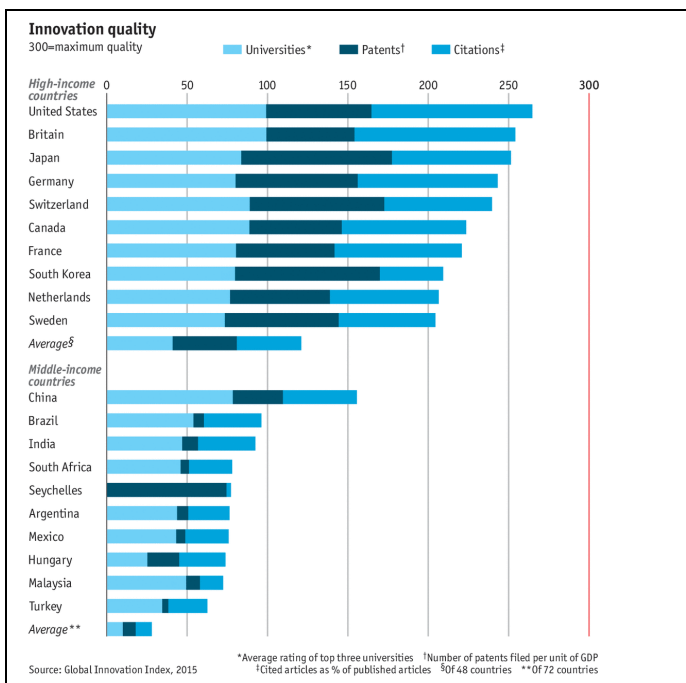
Therefore, the halo of creativity includes utility/usefulness or efficiency, while excluding the polarization of generic factors (as in the case of polarizing income, which does not favour its optimal evolution), and has a balancing trend between the major institutions that propagate and support it (universities, research institutes and publishing houses), in parallel with a tendency to dilate quotations/citations as a significant resultative variable, to the detriment of patents

2. CREATIVITY AND ITS PRODUCT IN RESEARCH AND THE LOGIC OF RECIPROCITY OR MORALITY

In 1937, William Allport defined creativity, in his book titled *Personality – a psychological interpretation*, as a complex concept, which cannot be strictly limited to some of its manifestations, such as skills or intelligence. From a scientific point of view, the multidimensional concept of *creativity*, once introduced into the scientific language, was associated with those people who displayed a capacity, a degree of ability and intelligence situated over the usual, average or common level [7]. Thus, a creative person was considered as “*gifted with respect to the average intelligence.*” [8] Moreover, a creative individual can also be described as a person who is deeply original, innovator and constantly appropriate to reality in what he/she thinks, expresses and does. Adaptation coherently describes intelligence, and involves various different target areas. Adapting to these various areas of an increasingly complex reality, leads to the finding that a creative person has to possess *multiple concrete types of intelligence, ranging from verbal-linguistic intelligence, to visual and spatial intelligence, from intelligence of the kinetic or rhythmic and musical type, to interpersonal or intrapersonal intelligence, to social intelligence, from the intelligence derived from nature that surrounds us, to academic or intellectual intelligence, complemented by the type of emotional and partnership intelligence.*

The unprecedented development of science, the explosion of information, the acceleration of the rate of discoveries and their application, the global problems that mankind faces, and the huge technological potential existing, they all offer arguments in support of the idea that traditional learning, of the *adaptation to reality type*, must also include the change of this reality, which translates the need to combine it with *innovative learning*, focusing on new types of *projective and anticipatory intelligence*, which represents the necessary and sufficient solution in this respect [9,10] In 1950 Guilford defined creativity as a result of a multi-structured and pluri-component process, under the influence of group interactions and the social context, and thus admits that a realistic content of creativity encompasses many cognitive variables such as idea fluency, originality of ideas, sensitivity to missing elements. Creativity means not just a single personal element or attitude, but a set of these elements or attitudes. Basic elements of the creativity include originality (ideas or facts) intelligence, knowledge, a specific instinct defined as creative, non-conformity, persistence etc. [11].

Complex creativity denotes, in its present sense, a transition between the classical concept, focusing on the ambivalent delineation resulting from the coexistence of originality with efficiency (creativity written with a small *c*, or everyday



Source: Global Innovation Index (GII) Report. (2017). [online] Available at: <https://www.globalinnovationindex.org/> [Accessed in December 4, 2017]

Fig. 3. Structural dynamics of creativity in university-specific research, patents and quotations, exemplified by the Global Innovation Index (GII)

creativity) and modern creativity, which involves many other factors, beyond those two elements, e.g. motivation, will-power, high level of aspiration, fame, prestige, constancy, self-reliance, etc. (creativity with capital C, or exceptional creativity) [11,12,13,14,15].

The creative process is based on, and calls for, *incubation* and inspiration or illumination, and leads to a seemingly instantaneous understanding of a problem; it includes at least three distinct elements, or three types of thinking, which are easy to identify and validate: a) *divergent thinking* (considered to be decisive in the development of creativity – it implies fluency or cognitive flexibility, which provides skills to view and accept several ideas or solutions to the same problem); b) *convergent thinking* (applying a type of inhibitory control to achieve a mental concentration and evaluation of ideas that can become solutions to the same problem); c) *analogical or associative thinking* (the ability to distinguish an original idea in terms of an already existing idea in a suggestive and intuitive manner, generating subtle connections between factors, components or entities that may or may not be correlated). [16]

The problem extracted from the range of issues specific to a research that requires a creative solution will first of all benefit from a correct formulation, being simultaneously both divergent and unique, as well as unitary, yet at the same time avoiding total convergence, and it will resort, to the extent of real possibilities, to intuition or an analogy in achieving a knowledge as simple as possible, which should be based on the most accessible transfer of the original idea in relation to the old idea.

Scientific research has been, and remains, dominated by the specific mystery of creativity. Thus, *incubation* is characterized by the fact that, in an unconscious manner, the researcher dilutes the intensity of thought and appeals to *intermittents, or even an apparent abandonment of the subject matters* on which the research is focused, although he/she is completely immersed in that issue. Along with incubation, *illumination* redefines itself as an instant(aneous) eruption of an idea or a solution, a hypothesis or a test, a method or a model, which are completely new and unpredictable until the moment of the eruption. Incubation and illumination have been, and remain non-standardized, uncontrolled, unrepeatably and temporally uncorrelated processes, regardless of whether they occur in the context of similar or completely different researches. [17]

Unusual, novel and unpredictable, the product of creativity has been, and continues to be, the most important criterion for assessing the value of this process, whether it be expressed in a concrete or material form (project, invention, art object, building, means of transport, etc.) or immaterial or spiritual (method, model, theorem, theory, science, etc.). The novelty of any creative product is the result of a chronological analysis, while unpredictability arises as a result of unusual, surprising, unexpected logical processes, which no one has ever thought about – that is to say, unique [18,19]

However, the success of a creative process also depends on our ability to understand when a product is for the benefit of man and humanity in general, or detrimental to them, and here comes the vital characteristic of creativity, lying at the intersection with morality and ethics, dependent in their turn on human nature and culture. In this way, creativity lends to analysis the moral dilemma of the process and its product,

focused on the researcher's honesty in relation to other research (in relation to which the results are original, or else stolen or plagiarized), and the harmless, humanitarian and protective nature (related to which the products of creativity are considered good or bad, by association with the future of the Earth and the species living on this planet, but also with respect to the future generations). Regardless of the degree of coverage of morality according to universal, social or individual moral codes, morality or ethic is the only factor that ultimately endows the research, and implicitly the researcher's creativity, with consistency.

As recently suggested by Ung-Il Chung / Yuichi Tei in collaboration with Shunji Mitsuyoshi [20], in a remarkable and maximally synthesizing manner, first of all, a revision of the moral rules of the main religions is needed in order to reach either a minimum of three common moral rules, a pure extract from the classic decalogue: "*Do not kill others; Do not steal from others; Do not deceive others*" [21], or only one rule, "Do not harm others", centred on a single, all-encompassing moral principle, "Be fellowish", which is itself ultimately structured in just two aspects: 1) "Do not harm other fellow human beings"; 2) "Think and behave in a manner similar to other fellow human beings." [21]

The vision of a morality, as defined by Professor Yuichi Tei / Ung-IL Chung, based on a unique principle that, in this way, also becomes stable in the diversity, lends invariable and shared content to all human communities, and at the same time a useful content, which we took over, with the permission of the authors of the book *Diversity and Morality*, in this article dedicated to researchers. "Be fellowish", as soon as it is thus generalized and validated for the entire community of researchers, represents the moral principle of a future human society whose creativity will survive regardless of global economic, social and religious changes.

3.SOME FINAL REMARKS

Human conscience has created science and provided the necessary continuity for creativity, which paradoxically and together seem to act in order to exclude primordial conscience. The researches of modern science can have a valuable contribution, in the context of respecting morality, restricted to basic laws, thus contributing to the salvation of both the conscience of humanity, and to the individual's conscience.

In the twenty-first century, the complex conceptualization of creativity, which takes a two-fold support on efficient originality and generalized morality, can widen the already varied typology of the intelligence specific to the creative act with yet another form beyond the academic, emotional and partnership intelligence, to which an exceptional future can be foreseen, i.e. "existential intelligence". It substantially enhances the sometimes empathetic, and sometimes anticipatory character of effective creativity and originality in scientific research (whose applicability is economic, social, etc.), valuing a particular talent, a particularly rare ability, i.e. to respond convincingly to the most delicate questions of team members, the local, regional, international, or global community concerning the approach, the meanings and the impact of their common work, while cultivating the sense of common affiliation, and at the same time praising the individuality of the researcher.

4. REFERENCES

- [1] Bunge, M., (1984). *Știință și filozofie*, Editura Politică București
- [2] Roșca, A., (1972). *Creativitatea*, Editura Enciclopedică, București.
- [3] Săvoiu, G. 2012. *The method, the theory and the model in the way of thinking of modern sciences*, In "Limits of knowledge & society". Vol II, Epistemology and Philosophy of Science & Economy, Editors: Simbotin, G. and Gherasim, O., Iași: Institutul European, 2012, pp.103-122.
- [4] Săvoiu G., (2008). The Scientific Way of Thinking in Statistics, Statistical Physics and Quantum Mechanics, *Romanian Statistical Review* no 11, S XIII, pp. 1- 10.
- [5] *Global Innovation Index 2017 Report*. (2017). [online] Available at: <https://www.globalinnovationindex.org/> [Accessed in December 4, 2017]
- [6] *World inequality report* (2017). [online] Available at: <http://wir2018.wid.world/> [Accessed in December 3, 2017]
- [7] Săvoiu, G., (2006). *Proiecte cu finanțare externă*, Pitesti: Editura Independența Economică.
- [8] Allport G.W., (1991), *Structura și dezvoltarea personalității*, Editura Didactică și Pedagogică, București.
- [9] Deepak Chopra, et. al. (2012). *Războiul viziunilor asupra lumii*, Editura Trei București
- [10] Stoica, A., (1983). *Creativitatea elevilor*, Editura Didactică și Pedagogică București.
- [11] Guilford, J.P., (1950). Creativity. *Am.Psychol.* vol. 5, pp. 444-454.
- [12] Merrotsy, P. (2013a). A note on Big C Creativity and little c creativity. *Creativity Research Journal*, vol 25, pp. 474 – 476.
- [13] Merrotsy, P. (2013b). Tolerance of ambiguity: A trait of the creative personality? *Creativity Research Journal*, vol. 25, pp. 332 – 337.
- [14] Runco, M. A. (2014) "[Big C, Little c](#)" [Creativity as a False Dichotomy: Reality is not Categorical](#). *Creativity Research Journal*, vol 26(1), pp. 131-132.
- Săvoiu G., 2009. *Statistica - Mod de gândire și metode*, Editura Universitară București. 12.
- [15] Kaufman J. C., Beghetto R. A., (2008). *Exploring mini-C: creativity across cultures*. In: DeHaan R.L., Narayan K.M.V., editors. *Education for Innovation: Implications for India, China and America*, Rotterdam, The Netherlands: Sense Publishers; pp. 165–180.
- [16] DeHaan, R.L. (2009). Teaching Creativity and Inventive Problem Solving in Science. *CBE Life Sciences Education*, vol. 8(3), pp. 172–181.
- [17] Dinu, V., Săvoiu, G., Dabija, C (2016). *A concepe, a redacta și publica un articol științific. O abordare în contextul cercetării economice*, București: Editura ASE.
- [18] Iorga-Siman, I., (1981). *Taxonomia obiectivelor învățării fizicii*, Școala Argeșului Pitești.
- [19] Matei, S., Săvoiu, G., (2013). *Mathematics in the contemporary education, from the elitist school society to the school without society and the role of entertaining or funny mathematics in a interregional collaborative project*, in Talabă, I., Jijie, D.T., Păduraru, T., Tacu, G., (2013). *The Role of Euroregions in Sustainable Development in the Context of World Crisis*, Iași, Tehnopres Publishers, Proceedings of the International Conference, vol XIV pp. 109-116.
- [20] Chung, U./Tei, Y., Mitsuyoshi, S., (2017). *Diversity and Morality*, Tokyo: Book. Lab.
- [21] Chung, U./Tei, Y., Mitsuyoshi, S., Tokuno S. (2016). *How to reconcile morality and diversity in globalizatoion and multidisciplinary integration*, *ESMSJ*, vol. 6(1), pp. 4-7. [online] Available at: [http://www.esmsj.upit.ro/ESMSJ%20vol%206\(1\)%20pentru%20Denis%20pe%20site/PAPER%201.pdf](http://www.esmsj.upit.ro/ESMSJ%20vol%206(1)%20pentru%20Denis%20pe%20site/PAPER%201.pdf) [Accessed in December 5, 2017]