

IMPORTANCE OF PROFESSIONAL ETHICS IN WORK OF SCIENTIST IN THE CONTEXT OF REFLECTION ON NOSTALGIC SOCIETY

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Abstract: In his latest publication, Z. Bauman's *Retrotopia* elaborates the ideas of S. Boym in the concept of a nostalgic society based on an imaginary effort to balance the values of freedom and security. Bauman points out that in this concept, for us, the past becomes the source of our presence, due to our resignation to the horizons of the future. This nostalgic orientation of contemporary society has, as we believe, fundamental ethical implications that we will try to outline in this paper by putting emphasis on professional ethics in the field of scientific research.

Keywords: nostalgic society, professional ethics, ethics of science, ethics of research, ethics of scientist.

Timothy Snyder, in his book titled *On Tyranny: Twenty lessons from the 20th Century* in the fifth of them, writes: "When political leaders give a bad example, it is all the more important to do the one's work honestly. It is difficult to break the state governed by the law without the lawyers, but to organize judiciary trials without judges" (Snyder, 2017). T. Snyder formulates his lessons on the basis of the analyses of the situations in which democracy has received the strongest blows. These are those moments of our history which are, perhaps, mostly abraded by the nostalgia. One of the ways to defend the principles of democracy in our everyday practice is if:

"Representatives of individual professions can create some forms of ethical conversation that are not possible between the isolated individuality and remote government. If these people consider themselves to be a group with common interests, standards, and rules that are observed at all times, then they can gain self-confidence and some kind of power. If they tell us that the situation is exceptional, we have to follow strict professional ethics. Then there is no such thing as "I've only fulfilled the orders". But if members of professions confuse their specific ethics for emotions of a given moment, they may commit themselves to statements and actions that they would previously have considered unthinkable" (Snyder, 2017, p. 34).

Among other things, this is a huge challenge to professional ethics and their development. Professional ethics is not an emotional relationship to elsewhere but, on the contrary, the value is anchored in here and now, in today's situation, in the performance of my profession.

In his publication *Retrotopia* (Bauman, 2017) from 2017, Z. Bauman introduces to our wider awareness the work of Svetlana Boym (Boym, 2001, p. 13)¹, whose reflections of present are an inspiration to Bauman, as it is to us. According to Boym, the present was overwhelmed by the epidemic of nostalgia. This epidemic of nostalgia as “an emotional desire for a community with collective memory, a desire for continuity in a fragmented world ...” (Boym in Bauman, 2017, p. 8) is becoming more and more obvious². Nostalgia appears to some extent as a defensive mechanism of the present participants “in the time of the accelerated rhythms of life” (Boym in Bauman, 2017, p. 8). However, it is not for free and it is not without the pain either. It is tempting as a promise “...to rebuild an ideal home, which is in the core of many influential ideologies of today, misleading us to give up critical thinking for an emotional attachment” (Boym in Bauman, 2017, p. 8-9)³. Nostalgia is not a grip on the image of the past, but it is an idealizing deforming view, with the viewer resigning to the future: “The danger of nostalgia is that it tends to confuse a real home with the Imaginary one” (Boym in Bauman, 2017, p. 9). Thus, nostalgia becomes one of the driving forces of “national and nationalist revivals around the world that engage in the myth creation of history by returning to national symbols and myths, and occasionally exchanging conspiracy theories” (Boym in Bauman, 2017, p. 9). Every day we see how the humanity has repeatedly not learned from the horrors of the past. Younger generations do not understand the meaning of freedom, and voluntarily give it up, while they are blindfolded by the omnipresent consumption. Everything is quantifiable, everything has its price and we are not equal in such a reality. We are defined by what and how much we can afford. Economization in such an extent destroys human dignity and nourishes new fears stemming from the possibility of losing one's income.

According to S. Boym, the epidemic of nostalgia took over the relay from the epidemic of mad progress (Boym, 2001). However, that does not mean that the society has no desire of the progress, it is the exact opposite.

Works of Snyder and Boym, or Bauman point to the personal responsibility of each of us, and to the extent of our failures in defence of democratic principles. Atrocities of fascism would not have been possible without the collaboration of the imaginative occupational elites of the then-society. Especially doctors and scientists. While analyses of nostalgia indicate that history may be repeated and would probably be an even more destructive experience. Science cannot be abused no more, and professional ethics is one of the ways to prevent it.

¹ It is in this publication, where Boym describes nostalgia as a feeling of loss or relocation, but also as a love romance with its own fantasy.

² Not only in the analysis of Central European societies.

³ Nostalgia is thus linked to the post-factual era that is typical by the absence of critical thinking and by showing enthusiastic ardour for conspiracy theories. Nostalgia, post-truth and idealizing emotional survival of reality – aspects of the present.

In this respect, there is a sufficiently clear view across the twentieth century, which was undoubtedly a revolutionary period for humanity as such.⁴ It is indisputable that one of the consequences of military conflicts in the twentieth century was the rapid development of science in its various branches. We are currently witnessing the rapid development of science and technology, particularly in biomedical technology and biomedical research. However, it is not just about biomedical research, which, in its possibilities and consequences, clearly shows the need for ethical parameterization of scientific activity. Let's mention, for example, the Stanford Prison Experiment, Milgram's Obedience Tests (to the Authority), the Piltdown Man Case⁵, or the Baltimore Affair⁶. These, yet not only these, are a clear example of the failure of science and scientists, and they are at the same time the evidence of the need for ethical parameterization of scientific activity. The ethics of science as "a professional format that responds mainly to current problems in science, formulates and specifies ethical requirements in the field of science, looks for the ways of solution and generalizes moral experience from past and present." (Fobel, 2017, p. 9) is a necessity.

As H. Have says, ethics is important for scientific-research activity at least for two reasons:

"First, ethics is of interest to policy-makers because of public concern. Because there is public concern and debate on issues such as cloning, research involving human beings, transplantation, nuclear energy, environmental pollution and global warming, ethics has been placed on the national and international agendas. Ethics is no longer solely the concern of scientists, engineers or health care professionals. It has therefore transcended the exclusive domain of experts, showing that science is first of all a public enterprise, a social activity and a cultural good. Second, scientific developments often affect all people. This is clear in medical research, which is increasingly dependent on the cooperation of large numbers of patients and healthy volunteers, often in international trials. This implies that the interests of science and research should be balanced with the interests of participating people, precisely because human rights and freedoms can be at stake. Public debate and awareness raising are therefore important to make it clear that science and technology are advancing within an ethical framework of respect for human dignity and human rights. They also show that scientists have responsibilities towards society and do take into account the possible effects of their work on society, for example as regards protection of the environment, promotion of justice, and prevention of biohazards and bio-events. "(Henk ten Have, 2006, p. 11)

⁴ And this is mainly due to the political decisions resulting in the two world conflicts.

⁵ In this case, it is a fossil forgery of the missing human interspecies from 1912, which falseness was only revealed in 1953. Amateur archaeologist and geologist Charles Dawson were accused of this forgery. For more details see (Beneš, 1975).

⁶ In 1991, the NY Times published the text accusing renowned scientist David Baltimore of manipulating research as a result of fraudulent data processing (Resnik, 1998).

Also, D.B. Resnik, in his publication, *The Ethics of Science, An Introduction*⁷ identifies several trends that notably contribute to a significant increase in awareness of the importance of ethics for scientific research activity, both in the lay and in the professional public.⁸ He considers first of them to be a strong public response, which in response to the ethical side of scientific activity jointly puts pressure on competent parties, such as the in the case of disclosure of some scientific experiments conducted by the US during the Cold War, cloning or global warming issues, and many others. Another important fact is that both scientific communities and government officials in several countries have, on the basis of some investigations, officially documented cases of ethical controversy in certain research activities, while pointing out that the "lack of ethics" in the work of researchers⁹ is a threat to stability and integrity of a research. The third circumstance, which can be considered increasingly important in view of the growing financial dependence of science on the private sector¹⁰, is the value conflict between the field of science and the business field (Resnik, 1998).

In general, we can define the three basic areas of ethical reflection of scientific research:

1. work with research participants,
2. work with the information,
3. responsibility towards the society (Komenda, 2004). The field of the responsibility of science to society can be divided into four basic sub-areas, due to the multidimensional nature of the category of responsibility.

We talk about:

- Social responsibility.
- Responsibility for the environment.
- Individual responsibility.
- Institutional responsibility (Fobel, 2017).

These four dimensions of responsibility are closely related to the basic qualities of scientific work such as: "honesty, openness, fairness, truthfulness, accuracy, consistency, respect, collaboration, loyalty, professionalism, whistleblowing and "giving due credit"." (Fobel, 2017, p. 62)

As part of the development of science, it is possible to follow a certain development of ethically tuned discussions relating to the central risk areas of scientific and research activity, as M. Iaccarino points out:

- From 1950 to 1960, the main discussions concerned the possibility of using and developing new weapons, especially nuclear ones.

⁷ Originally from 1998.

⁸ However, we do not cover the fact that the scientific community is not uniform in this respect, either in regard to the importance of ethics for science or its implementation issues both into the processes, as well as into the institutions and organizations.

⁹ But also at the institutional and organizational level.

¹⁰ Although, as P. Fobel points out, the link between science and business in Europe is built on other pillars, then it is, in this sense, the more liberal US (Fobel, 2017).

- From 1970 to 1980, the issue of the environment has become a major topic.
- At present, the issue of biomedical research, its possibilities, limits and direction (Iaccarino, 2000) becomes the focus of discussions with the ethical sub-tone. There also resonate questions and concerns related to robotics and artificial intelligence, as suggests the latest report: *COMEST Report on Robotic Ethics* from 2017 ([http://unesdoc.unesco.org/...](http://unesdoc.unesco.org/)). It would be a mistake to think that it is possible to clearly separate the different themes in time, on the contrary – it is the opposite. This classification only indicates which questions resonated the most at the time ([http://www.unesco.org/...](http://www.unesco.org/))¹¹.

From the professional point of view, certain ethical standards correcting the performance of scientific research activities are important for us. These ethical standards rise from two "roots" – from the morality and from the concept of science. By the words of D. Resnik: „Ethical conduct in science should not violate commonly accepted moral standards and it should promote the advancement of scientific goals“ (Resnik, 1998, p. 48). Current practice shows us a number of ethically problematic areas directly linked to the exercise of the scientific "profession". Together with Iaccarino, we can summarize them into the following points:

- the possibility of misusing the public resources for personal purposes and interests,
- the excessive impact of the private sector on the establishment of public research priorities,
- differences in views on the use of public structures between scientists working with the industry and the private sector and those working only with public resources,
- problems of the students, especially PhD students, whom their directors of studies can use as a workforce rather than as students (Iaccarino, 2000).

At present, the publishing ethics is a significant issue. In the words of A. Fabian: "In order to meet the criteria of the Ministry of Education, the so-called "collaborating teams" has developed where the names of researchers who never worked on the research are attributed to the publication of the results, according to the rule "I for you and you for me" or "quotation teams", where the authors quote each other according to the agreement ... The clientelism also plays its role here. What kind of ethics it is, when the connections form the science?" (Fabian, 2012, p. 10). And this is not the only malady of our science. Increasingly, the so-called "predatory magazines, and predatory publishers", toward which we, as the Slovak academic

¹¹ COMEST has long pointed to the need, possibilities and tools on how to saturate the science by ethics. It proposes that:

- ethics becomes part of the education and training of all scientists,
- research institutes should also include studies of the ethical aspects of scientific work,
- the international scientific community should promote environmental ethics,
- scientific institutions should meet ethical standards,
- governments and civil organizations should organize discussions on the ethical implications of scientific work,
- governments and civil organizations should set up ethics councils and committees.

community, have not expressed an unambiguous and in practice clearly identifiable position¹², it is, actually, the opposite ([http://www.avcr.cz/...](http://www.avcr.cz/))¹³. Moreover, the only tool for their identification, the so-called Beall's list is not available from January 15, 2017, and it is without giving any obvious reason. Predatory magazines are often indexed by the databases like SCOPUS or Web of Science, which makes the whole issue even more challenging.

Another major problem of contemporary science (also from a professional point of view) is the problem of scientific inertia (socially unproductive science), the tendency of science, the low level of national discourse, the creation of purpose publications, the "paper" participation at the events (Fobel, 2017)¹⁴, the absence of functional and realistically achievable international discourse, but also a lack of moral patterns and personalities. Moreover, the science environment – often the academic environment – is full of all unethical organizational ailments, such as bullying, mobbing, bossing, sexual harassment, and so on ([http://psu-brno.avcr.cz/...](http://psu-brno.avcr.cz/)).

D. Resnik formulates twelve ethical standards – principles that should function as some normative regulations of scientific-research activities. In particular, the principles of honesty, diligence, openness, freedom, credit, education, social responsibility, legality, opportunity, mutual respect, efficiency, respect for the subjects (of a research) (Resnik, 1998).

- The category of honesty is unambiguous: “Scientists should not fabricate, falsify, or misrepresent data or results. They should be objective, unbiased, and truthful in all aspects of the research process“ (Resnik, 1998, p. 48).
- Diligence “Scientists should avoid errors in research, especially in presenting results. They should minimize experimental, methodological, and human errors and avoid self-deception bias, and conflicts of interest“ (Resnik, 1998, p. 51).
- Openness: “Scientists should share data, results, methods, ideas, techniques, and tools. They should allow other scientists to review their work and be open to criticism and new ideas“ (Resnik, 1998, p. 52).
- Freedom: “Scientists should be free to conduct research on any problem or hypothesis. They should be allowed to pursue new ideas and criticize old ones“ (Resnik, 1998, p. 54).
- Credit: “Credit should be given where credit is due but not where it is not due“ (Resnik, 1998, p. 55). Two misconducts in the science practise fall into this category, the plagiarism and the so-called honest authorship. The problem of plagiarism is, we believe, well known. Less represented in the literature, but not less represented in practise than the plagiarism, is the problem of adding co-authors into the texts on which they did not participate at all or only to a minimum extent, for various reasons.

¹² We expect that, over the next few years, we will witness the revision of publications with the aim of eliminating purposefully published texts or even publications without proper review.

¹³ Unlike the Czech Republic.

¹⁴ Similarly, as P. Fobel writes, we must face: "the trend of reducing the ethical credibility of science (especially social sciences), the tendencies of economic pragmatism towards the science, political naivety, low media support, and the devaluation of scientific work" (Fobel, 2017, p. 57).

- Education: “Scientists should educate prospective scientists and insure that they learn how to conduct good science. Scientists should educate and inform the public about science“ (Resnik, 1998, p. 56).
- Social responsibility: “Scientists should avoid causing harms to society and they should attempt to produce social benefits. Scientists should be responsible for the consequences of their research and they should inform the public about those consequences“ (Resnik, 1998, p. 57).
- Legality: “In the process of research, scientists should obey the laws pertaining to their work“ (Resnik, 1998, p. 58).
- Opportunity: “Scientists should not be unfairly denied the opportunity to use scientific resources or advance in the scientific profession“ (Resnik, 1998, p. 59).
- Mutual respect: “Scientists should treat colleagues with respect“ (Resnik, 1998, p.60).
- Efficiency: “Scientists should use resources efficiently“ (Resnik, 1998, p. 60). This principle gains an importance in the context of drawing and using grant resources.
- Respect for the subjects (of a research): “Scientists should not violate rights or dignity when using human subjects in experiments. Scientists should treat non-human, animal subjects with appropriate respect and care when using them in experiments“ (Resnik, 1998, p. 61)¹⁵.

These twelve ethical standards also reveal the key ethically problematic areas of the work of the scientist, which are mirrored in many ethical tools used by various scientific institutions. From the point of view of professional ethics, ethical codes, which are probably the most widespread way of implementing ethics into the profession, are important and relevant to us. However, they are not sufficient on their own, and they often are just a blank declaration of the organization's attempt for an ethical performance. Of course, ethical codes are not the only tool for implementing ethics in performance of work activity. In practice, there are the ethics committees, consultants or advisors, ethics ombudsmen, and plenipotentiaries. An important role is played by the ethical trainings, directly aimed at dilemmatic work environment related situations, which are a highly effective tool for acquiring the "ethical charge" of the work environment.

We might ask if there is any simple guideline on how to function ethically correctly as a scientist. Paraphrasing Touretzki (2017): First of all, it is necessary to know the rules, then to know your rights, responsibilities and boundaries of responsibility, also to be well informed about the most common ethical problems of such activity, to avoid such conflicts in the one's research and to constantly learn from the mistakes of others.

¹⁵ Even with regard to the abovementioned normative ideals of scientific research, there is a clear value framework in which the scientific-research workers operate – the value of (human) dignity, the value of life plays the primary role in it.

It is beyond doubt that the development of science brings new challenges for ethics and for the scientists themselves as the partakers of science, at present being far more acute and scalding than in the past. The borders of the unthinkable have already been crossed many times. In foundations we can transplant memories, which shakes the questions of the identity in their foundations, we can modify the human genome, we can develop the weapons capable of threatening the whole planet, and many other impossible things have become the reality. At the same time, the mankind is lost without science. It is the science that has the potential to render our "trespasses" against the planet and thus save it for the next generations. And that is why the future of science without ethics is unthinkable. Quality and responsible science needs good and ethically-educated partakers. The partakers who perceive the entire ethical diapason of scientific-research activity, and also recognize their own moral profile.

We often read or hear about the critical situation in our society. The question that we have asked over and over arises again: whether, like in the case of the business depression, the depression of our science – which no one dares to doubt – is not of the economic nature but the moral one? Is the state of the Slovak science not a mirror of the state of the Slovak society? Is it possible that the Slovak science, just like the Slovak society, suffers to the greatest extent from clientelism, corruption and lack of transparency?

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