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## Essay on the Limited Usefulness of Science



**Tomáš Očadlík**

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# Contents

<b>Foreword by Petr Hampl</b> .....	<b>4</b>
Preface .....	8
Motto .....	11
Dedication .....	11
<b>1. Introduction</b> .....	<b>12</b>
<b>2. Body (Arguments in favour and against)</b> .....	<b>14</b>
2.1 Puppybug's Proof by Contradiction .....	14
2.2 Science versus Radical Religion .....	21
2.3 Science versus Democracy.....	23
2.4 Science and the Interests of the Aristocracy.....	26
2.5 Science, its Development and its Worshippers .....	30
2.6 Science, Modern Technologies and their Apparent Limits .....	32
2.7 Science and The Four Rules of Liberation .....	35
2.8 Life at the Time of the Triumph of Science .....	40
<b>3. Conclusion</b> .....	<b>44</b>
Annex .....	47
Acknowledgement .....	48
Epilog (Review by Jaroslav Petr) .....	48
References .....	52
Notes (0. Why this essay looks the way it does) .....	53
Bonus (Christmas Reflection on the Vanity of the Scientist) .....	73
Appendix (PuppyBug transforms The Holy Sentence at GloCosFor 2021) .....	79

# Foreword by Petr Hampl

She was a goddess, and today she is an object of scorn and contempt. There was a time when it was quite seriously proposed that scientists should be appointed as the ruling caste, that science should replace religion, and that the national commonwealth should become the basic organizing principle of society. That the temples of science should be established and ceremonies glorifying scientific knowledge should be performed in them. Even the calendar was for a short time abolished because it was said not to be scientific enough and was replaced by a kind of mathematical construct. Science was to determine every detail of every person's life.

Those days are gone, and the time of scorn has come. Radical students have “uncovered” empirical science as something racist, sexist, xenophobic, and otherwise incorrect. Statistics teachers are being thrown out of classes, and entire courses are being canceled as offensive. Perhaps, every month, a news story runs through mass media that a distinguished biologist has had his or her honours revoked.

The radical anti-civilization left is not alone. It readily joins an extreme branch of Catholicism, which represents a small minority even within the Catholic Church, but is nonetheless very active in the public sphere. Perhaps hoping to retaliate for the abolition of the Inquisition and the defeat by free thought from the 17th to the 19th century. To make matters worse, the anti-lockdown movement is gradually growing into the opposition to modern medicine and all of the empirical science that underpins medicine. A popular leader is calling for a revolution to end centuries of oppression by science, and her post is being shared by tens of thousands of people on social media. A former president with a professorial title publicly mocks mathematical sequences and quite seriously claims that the laws of mathematical statistics do not apply to his followers. A biology professor is ambushed and slapped on the street because his conclusions do not correspond to the worker's views.

In short, something is in the air. To complete the picture, we must add that billions of euros continue to be spent on supporting scientific research, even in our small Czech Republic, and that many researchers are entirely unaware that conditions are changing. However, it is changing.

And it is at such a moment that Očadlík's Essay on the Limited Usefulness of Science comes. It's a necessary essay because it clearly articulates a question that has been sort of hanging in the air, but which no one has asked directly. What about empirical science? Does it help us, or rather, does it threaten us? Do we care about its further development? Would it not be better to spend money on preventing further research?

These are blasphemous questions, but if they are not asked directly, the crowd will ask them in their crude, uncultured, and even violent way. And, in fact, it has already started asking them.

I have had the opportunity to follow his efforts continuously and gradually observe his essay taking a clear shape. Tomáš Očadlík himself compared his work to a cake of a Doggie and a Pussycat\*. I cannot entirely agree with him. His work combines disparate elements into a shape that makes sense. The formulation of the hypothesis, the definition of terms, but also the remarks about the nice and clever girl "PuppyBug". Everything is geared towards making the text easy to read and follow the line of thought. And to be able to pause occasionally and ask thoughtful questions.

Tom makes no distinction between science as a way of thinking and science as an institution involving considerable money, degrees, examination systems, special terms and rituals, and a whole system of tools that create a protective barrier against the entry of new people and new ideas. There is tension between the two conceptions of science, and there are whole disciplines such as the "theory of science" or "analytic philosophy" that deal with this. Tom does not get involved in verification or falsification procedures, and he does not address particular problems

like scientific revolutions. Such a focus on individual aspects would hide the essential – science as a whole. Science as a phenomenon that shapes our lives. It opens up new possibilities, but it also commands and prohibits. Whether by direct state prescription or by making some things unthinkable as unreasonable. Professor Ivo Budil\*\* recently said that the success of modern European civilisation is based on “cognitive intolerance” (the unscientific is marginalised). But are we paying too high a price? This is another legitimate question posed by Očadlík's essay.

Science in his conception can be likened to the earth's gravitational pull. It causes a lot of complications, but we have no way to eliminate it. No matter what regulation is issued, the human desire for knowledge cannot be stopped. Therefore, scientists will continue to push the boundaries of research. They will open more Pandora's boxes and develop research where the results could be devastating.

I fear that human curiosity and the desire for knowledge are not self-evident at all. Most people will never experience something like this, and there are entire civilizations where free thought never emerged (or they were able to suppress it very quickly and effectively). But this is what the discussions over Očadlík's essay should be about.

However, for us in the West, science is important in another aspect. We do not know how to live merely in the present. We need to anticipate things to come; we need to look forward to the future, we need to be optimistic. Otherwise, our thinking and our civilization collapse. In recent centuries, looking forward to the future has been linked to science. So how can we live without looking forward to the next scientific discoveries? We do not know today, and we need to know. Another important question.

For me, as a sociologist, Očadlík's essay opens up the question of why we have stopped looking forward to the future. Why wasn't the development of poisonous war gases the turning point? Why weren't it the gas chambers and IBM computers making sure no Jew escaped? Why wasn't it nuclear weapons or electronic surveillance? Why wasn't it

the Chernobyl accident? What worse has happened in recent years that science has ceased to be seen as the giver of life, happiness, prosperity, and security?

Quite possibly, Tomáš Očadlík has found the answer when he mentions in his text the expiration of the social contract between the elite and the working classes. It seems that the time when we were bred like cattle to be used and abused, but when we were still given basic living conditions in which we could survive and still enjoy some of life's pleasures, is over. There is a sense that this old world (miserable but bearable) has been replaced by a world where the rulers are trying to kill us. Game over, the herd goes to the slaughter.

That basic loss of optimism is not just about science, technology, and education, but about all areas of life – democracy, the arts, and entertainment. Even our genes are coming to be seen as constantly deteriorating. The Aeronet server and its follow-up radio station Svobodný vysílač CS [Free Broadcaster CS] are among the most popular alternative media in the Czech Republic. For example, they promote the idea of fuses in the human genetic code leads to the destruction of the species. They suggest that these fuses have been activated in our time. The audience nods enthusiastically. Darkness covers the world. Such is the feeling of life in the early 21st century. Trust in our civilization has disappeared and gone because those at the top have come to believe that they no longer needed those at the bottom.

This is not the first time in history that such a feeling has prevailed. In previous ones, mobs burned libraries or destroyed machines. But such destructive behaviour leads to a feedback loop. People who burn libraries then lack the knowledge and skills needed to improve their situation. And the worse their situation, the more they hate libraries and machines. The circle is closing.

That is why Tomáš Očadlík's essay is extremely important. It opens up questions that should have been asked a long time ago and for which finding answers is vital. That is why I hope that the publication



of the small book is only the beginning and the first step. That a debate will follow, that the debate will be vigorous and that the meaning of empirical science will be rediscovered.

In Dobřichovice, September 10, 2021

Petr Hampl

\*“The Tales About a Doggie and a Pussycat” were written by the famous Czech painter and writer Josef Čapek in 1929. This children's book about a dog and a cat, who live together in a small house and wish to do everything as people do, is still very popular. In that book is the story “They were making a cake”. Doggie and a Pussycat were making a cake using many strange ingredients. A big bad dog ate the cake and got a severe tummy ache.

In 1921 Josef Čapek invented the word “robot” which was introduced into literature by his brother Karel Čapek.

\*\* Professor Ivo T. Budil is a Czech anthropologist, university teacher and writer.

## **Preface**

Before the dear reader undertakes to read this essay, I should like to call his attention to a few minor points. I have had this essay reviewed by a friend of our family who is a respected and highly placed man in an unnamed publishing house. He sent it to be reviewed by an experienced philosopher, translator, and editor of this prestigious publishing house, whose current book output includes quality scholarly literature, especially in the fields of history, philosophy, religious studies, and theology.

I can do nothing but use the same method applied throughout the rest of the essay. I simply incorporate his statements into the essay as

I have done with the official and unofficial opinions of all the willing and unwilling participants. His statement rightly belongs in the essay, as it is highly professional, exceedingly apt, and factually correct.

I quote from his report:

“The text is such a strange amoeba of not very deep considerations going in different directions, very subjectively coloured, here and there embellished in a humorous way (e.g. by the entrance of ‘Puppybug’ as a thinker). In short: it's not for publication anywhere, in my opinion. Perhaps it's a text for a few of the author's patient friends, but that's about it.”

The publisher friend of mine read part of the text himself and, as an expert, had to agree with his colleague. I also agree with the editor. It is an inhomogeneous patchwork of official and sometimes unrepeatably spontaneous unofficial statements of various interesting people, whose opinions on the topic under discussion I have tried to comment on and connect with wobbly “donkey bridges”. My intention was not to somehow make myself visible and assert myself in this type of literature, as I am not really equipped with the right talent or knowledge. Nor was I driven by the ever-present desire for recognition (often bordering on vanity) that almost always moves constructive individuals to create something extraordinary or to solve a complex problem.

For a far more repulsive and reprehensible desire, which also plagued the famous hero of Dumas's novel, *The Count of Monte Cristo* – the desire for revenge – had taken hold of me. The desire to take some kind of revenge on those irresponsible modern scientists and their wealthy sponsors who are developing science to the point where it will become as repulsive to many people as this essay. Then, will science also evolve into such an amoeba running in all directions and devouring everything natural around it? Let the unscrupulous successful scientist or his equally unscrupulous aristocratic benefactor shudder in disgust at the casual reading of this essay. But how can such a poor individual as myself, who has got essentially nothing and means nothing, take revenge on them within the law? By trying to take away even a tiny part of their dubious contribution to humanity and the Earth's environment.

I don't want the essay to be written in a completely professional and conformable way, correct in everything, and brilliantly executed. I want it to be apparent at first glance that it was created spontaneously, rather chaotically, without scientific calculation and therefore imperfectly.<sup>0</sup> Therefore, this essay, to satisfy at least a little, requires a reader who is patient, tolerant, understanding, and thoughtful, who, at least during the reading, becomes almost my imaginary friend. Only for such people is this essay intended. After all, the impatient and discerning reader need not even read the whole thing because it's all about that claim about the limited usefulness of science anyway. You only need to read the first part – **the introduction.**

My only secret and entirely vain personal ambition is that this statement on the limited usefulness of science should (at least in the minds of my more tolerant literary friends) be included in *The Lexicon of Murphy's Laws*. So that it would be there with other humorously expressed laws, sentences and rules, such as in Arthur Bloch's book: *The Complete Murphy's Law*.

When I started to write this essay, I even thought that many people today might feel like me and the innocent Count of Monte Cristo who was locked up for many years in *The Château d'If*. It is the crazy year of 2021 and they are locked in their homes, being prevented from having personal contact with their loved ones, being watched more and more, and their basic freedoms and needs are being restricted in an unprecedented way. All this is happening to innocent people, women, men and children who have committed no real crime or offense. On the contrary, they say it's for their good. And the culprits of this situation remain officially unknown. Are there any guilty parties? Do I, and perhaps other people, have the right to at least “literary” revenge? Shall it be carried out in the same way as the hero Count of Monte Cristo? Do we have the right to despise a very-decorated scientist who helps develop, for example, modern weapons of mass destruction? Should you, dear reader, by buying this book, or by simply reading it, join in my little revenge? Is it moral and does it even make sense? I have tried to find the answers to

these questions for myself through this essay. The reader of this book can do likewise.

Yesterday (26 August 2021) was a very important day for me. I learned that Ms Soňa Peková, the doctor and holder of a doctorate in molecular biology, genetics, and virology, has decided to run for the Chamber of Deputies of the Parliament of the Czech Republic on behalf of the Swiss Democracy movement. She is the author of 38 scientific publications in the field of molecular genetics and microbiology and the managing director of a private diagnostic laboratory.

Her electoral credo is comparable to the courage and dedication of Joan of Arc:

“I would like to focus on improving the surveillance of laboratory genetic manipulations and their potential impact on the environment, safety and human and animal health. Further-more, to technical issues related to the implementation of new molecular medicines.”

I wish this modern Czech Joan of Arc to contribute as much as possible to prove that my statement, discussed from all possible and impossible sides in the following text, is not true and that I am deeply mistaken.

## **Motto**

“There is only one thing in the world worse than talking about a problem, and that is not talking about it.” (Inspired by Oscar Wilde.)<sup>1</sup>

## **Dedication**

To Professor Václav Klaus with great respect.