



Review Article

What is a "Breakthrough in Science"?

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ABSTRACT

This article analyzes the concept of a "breakthrough in science". According to the author, as "breakthrough" can be considered only such shift in science that leads to real benefits for the people. In this case, a simple "creating of abstract theory", which is not supported by real life, which does not give anything new for people's lives, should not be considered as a "breakthrough in science".

Keywords: cable-stayed structure, supporting contour, statics, a breakthrough in science, true science

INTRODUCTION

"Matter is the objective reality given us in sensation"

Vladimir Lenin

Thorny and difficult is path of man in science. Those scholars, who really move along this path, know this firsthand. And now let's try to analyze the "theory of science." Of course, everyone knows that science itself, no matter of which sections we nor touched, is a rather complex conglomerate. Jobs in Science - a constant forward movement. A man's life in science simply does not allow him to stand still. Of course, many scientists after reaching certain heights they may have once consider for himself as not achievable, after the official recognition of their achievements, often stopped in their movement. The question arises: "If the achievements of person in science are officially recognized and he received for these achievements some awards and titles, but after that all his science works stopped, can such a man be

called scientist?" My answer reads: "No, he cannot". I understand that all committed by a man in science, deserves great respect, as well as himself. I understand that many of the old merit of a man further can allow him to live "like cheese in butter" during the rest of his life. But what significance this "rest of life" will have to science? Answer: "No any". Unfortunately, many Nobel Prize winners with their lives show us just such a paradox.

Somewhere in my heart I such people understand very well. Before receiving the Nobel Prize, many of these scientists conducted in scientific researches for decades. Perhaps thus they already are "used themselves till the end." With age comes old age, come sicknesses, comes simple "fatigue from life". Is it possible to condemn a man who in old age stopped his scientific research? Of course not. However, the man who "stopped his scientific research" should not, apparently, called as "scientists". I would call such person as

"former scientist", although it is not accepted in our society

There is a "former Prime Minister," there is a "former truck driver", so I think that the term "former scientist" also has the right to exist.

Science is always evolving not according to plan. Almost never happens to someone "made the discovery according to the plan" in the year appointed in advance. Of course, in our real life, we often see statements like "a cure for AIDS will be found in 2030". Are these statements having anything with real science? Of course not. Such a statement should be considered just as "advertising course", which is used to "increase the man weight in society", or just to get the next allocation of funds for his possibly "pseudo-scientific" research. However, with the real science, they generally have nothing to do.

TOUR TO HISTORY

Let's remember the Charles Darwin and his "Origin of Species". I'm not a biologist and I can not judge about all the details of his scientific work, but as far as I know, he tried to "sort through", that is to classify all the diversity and vegetation, and wildlife. All his there "shellfish", "arthropods», «Homo Sapiens» and so on - all they are his "shelves", his separate "Milestones". This path was long, difficult, and thorny. Along this way, of course, there were situations when a scientist found in nature a creature for whom just have not been coined "the cell for classification". What did he do in this situation? Firstly, he deeply analyzed the current situation, and secondly, he created the desired cell for classification of this being in his already existed scheme. The scheme in this case, of course, each time became changed. And could it be otherwise? Of course, different situation there could not be. We in our scientific pursuits in fact are creating the

schema, the framework to describe the "objective reality" that surrounds us. But the complete objective reality is not known to us. Imagine that the scientist met in the nature with the being, for which his scheme has no "suitable cell", then the scientist simply will "throw away this creature" from his consideration, since it can not classify it. You may say that this can not be? Usually this does not happen, real scientists never do it. However, further I will show you a real life example, when exactly it was done in a respectable American university.

NEW AWARD

You probably know that in 2012 a group of businessmen from Russia decided to create a special scientific prize, which in disposable payment will "surpassed" the Nobel Prize. The rich - their quirks. So they created a monetary fund and declared their prize, ^[1] calling it «Fundamental Physics Breakthrough Prize» - for awarding the physical scientists and similar name was coined for the new award for achievements in the field of medicine and biological sciences. As you understand, the key word in the title of the award is «Breakthrough», which also can be called as "radical change in science". This idea, as I understand it, is very good. The first 10 scholars who have received this award, were merely "assigned" by the founders with the approval of their list. Then the representative of the Foundation was sent to them and handed each of them a bonus of 3 million US dollars. Then, these awarded scholars was given a receipt that in the coming years they will take participation in the work of the commission for awarding these prizes.

MY SCIENCE HISTORY

Let us digress a little from this award and let's look into the history. Approximately in 1983, I began studying the cable-stayed structures. For ordinary people,

the cable - it's a simple "rope", although as the cables can act different "ropes" from many materials and constructive schemes of the cables can also be many types.

Before me, the cable-stayed structures for covering buildings each time were invented anew, any serious classification of such structures does not exist. [2] I developed an endless series of new cable-stayed structures. This series of cable structures are built by a certain law, which I was able to find after a long experience of creating of such structures "blindly".

Physics and construction for thousands of years are inextricably linked: construction objects are mechanical systems, which are being built and exist there due to the laws of mechanics. Mechanics is divided on statics, kinematics and dynamics. Itself the mechanics belongs to the theoretical physics. I think that every sane person understands that construction objects, as well as the individual parts of these objects are static objects, ie, they clearly belong to the statics, which is a subdivision of mechanics.

So as in 1989 I found the law of creation and existence of an infinite series of new structures of cable-stayed coverings, I wrote the law opened by me and immediately notarized the wording of it. In 2013, I wrote an article «Discovery in Statics», translated it into English and sent to the world's most authoritative magazine on mechanics - "World Journal of Mechanics". After a long correspondence and a series of examinations magazine has published my article «Discovery in Statics», [3] recognizing, so the discovery I made in static.

Prior to my infinite series of cable-stayed structures in the world there was only one such representative who was called "GIPAR" (see., e.g., Figure 1).

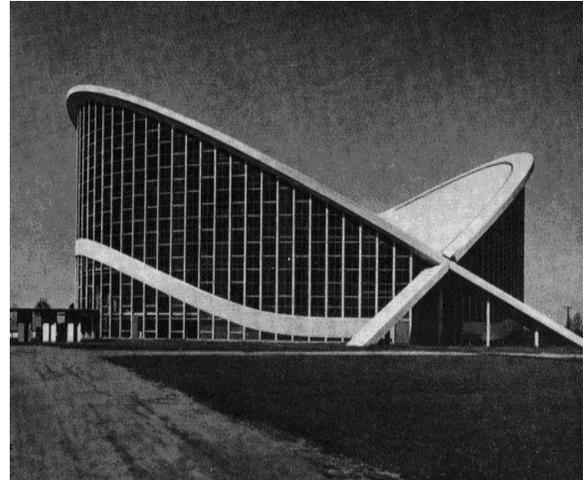


Figure 1
(Source: <http://artyx.ru/books/item/f00/s00/z0000026/st026.shtml>)

It was a structure with two humps on the support contour, its name stands for "hyperbolic paraboloid," because the network of such structure approximates namely such mathematical surface.

As you understand, only one representative any "class of constructions" is not. When I created my series of structures, I, of course, had to give him the special name of "quasi-orthogonal cable-stayed networks on undulating support contours". That's how in statics appeared a class of new designs. If you look into any reference book on physics, section "mechanics", subsection "statics", then you certainly this class of structures will not find there. When in physics was created the official classification, this class was not known to anyone - it simply not existed. My predecessor in statics was only Archimedes. Before me namely he made the latest discovery in statics (the law of buoyancy). During more than 2000 years no one, except me, has done no single discovery in statics.

Theoretical Physics - Mechanics - Statics - Cable-stayed Systems - Cable-stayed Roofs - Quasi-orthogonal Cable-stayed Networks on Undulating Support Contours.

Approximately like this (look above) should look like the corresponding path of mechanics in modern physical classification. However, if for two thousand of years my law was not opened, unless there was an endless series of my structures, it's clear: neither suitable for these structures sections in statics, nor appropriate "cells" for their classification was not. And now they are. What to do? The most natural solution - is to amend and supplement the already existing classification and not "throw out overboard the previously unknown to science beetle" (remember of biology). However, no one is in a hurry to do so.

I realized that my discovery - this is a real "breakthrough in physics" so I naturally wanted so: this discovery was examined by the Commission of «Fundamental Physics Breakthrough Prize». However, when I looked into the rules for applying for the award, I was surprised to find that the founders of the award decided to forcibly narrow down the possibilities for submission of bids (to ease their work). They literally wrote: to nominate for our award you can only such achievements that described in at least in one scientific paper, which is registered in the database «arXiv.org» of the USA Cornell University Library. For nomination any other sources of information will not be considered.

Agree that such requirement is pretty strange for such serious scientific prize. Besides the fact that this condition is putting American scientists deliberately in a privileged position, it also sets the "artificial filter" as a condition "the article should be registered namely in the database of this library. Of course, I understand that such a filter is very convenient for the founders, but agree that from the standpoint of world science, it is simply misplaced and not fair.

When the article "Discovery in Statics" was published, I immediately (in November 2013) registered this article in

several scientific databases. I also sent a request for its registration in the database «arXiv.org». In response, I received a "fairly good" letter, that "within two weeks my article will be registered". It's been more than a year ago, but it still has not been done. Despite all my links to other research foundations, which already registered my article, the database «arXiv.org» was impregnable: according to their existing scheme of classification they could not to classify my discovery more than a year. And then 9 January 2015 I received from «arXiv.org» formal notice: since with the help of their scheme my DISCOVERY can not be classified, they sent to me the decision to refuse registration of my ARTICLE "Discovery in Statics" in their database. Such fact that as the opening and the article are already existing, regardless of their database, they did not bother - "unknown to science the beetle was simply thrown overboard". This is the history.

SITUATION ANALYSIS

The above circumstances have caused me a number of questions that have remained unanswered:

1. Why did the founders of «Fundamental Physics Breakthrough Prize» put Americans and all the English-speaking scientists to deliberately privileged position?
2. Whether it is possible to consider as the "World Award" such award, which requires for nomination on it to registrate article about the discovery ONLY in the database «arXiv.org»?
3. Maybe it's not the world's «Fundamental Physics Breakthrough Prize», but only «Cornell University Prize»?
4. If the full history of science shows us that true BREAKTHROUGHS in science occur it is "at the forefront",

where can be else not developed full terminology or classification, whether can the award, which claims the title «Breakthrough Prize», simply "to throw overboard" some "breakthroughs at the forefront of science" only due to the complexity of their classification?

Let's refer again to the history. In the early twentieth century (1913), Niels Bohr created the theory of quantum transitions. [4] Several decades later, several scientists independently created the first laser for electromagnetic waves of light range. [5] Then lasers were created for almost any area of the scale of electromagnetic waves...

How was it possible to classify the first laser? "Laser technology" simply did not exist there. According to the above mentioned logic, the first laser had to be "denied the right to exist" so with the theory of physics it was impossible to classify. That's the same situation arises again and again with the other, namely the "breakthrough" discoveries and technologies. Those who do not understand this situation, is a man who "is very far from true science".

Do I have the right to talk about the "true science"? Yes, I have such right! And I know perfectly well that true science can result the person very far ahead of other scientists, therefore he will be just afraid to tell colleagues about his results. Along this way scholars are often faced with the concepts and phenomena, for which were not yet invented any of the terms or definitions. In this situation the scientist is forced quickly invent his own new terms. How do you, for example, refers to the concept of "the leading vector of world harmony"? Does not apply. And why? Simply because in the official science such term does not exist. In my life there was a period when I was "at the tip" of front edge of science - where nobody have created yet

any of its sections or concepts... All what I learned from this, for me was simply no one to discuss. In Soviet Russia, where I lived, there were too many "well-wishers" who would be happy to send me to the madhouse, but this way was not consistent with my plans. On the way to the fundamental tenets of science, I dug up such initial postulate, which in our ordinary language sounds as: "Everything is possible". I could nowhere further to move...

Am I engaged into this science now? Of course not. When you're at the tip of the forefront of science, your time begins to run so fast that it becomes downright scary. You immediately begin to realize that very many of your predecessors by means of this unique condition were quickly consigned to the grave. Of course, in this state, there are a lot of charms, for example, opens a direct connection with the Absolute ("information field of Vernadsky") and the person gets the opportunity to receive answers to all his science questions. But in this state, there is a big disadvantage - a man burns like a candle and becomes burned as fast as a candle... I decided "to burn" my life as long as possible, so after a 1.5 month of my direct communication with the Absolute I just unlink my relationship with him and instead of the serious science I directed myself "into such a primitive science" as the cable-stayed structures, which led me further to the already mentioned discovery.

In short, as I now realize, mentioned above prize «Fundamental Physics Breakthrough Prize» to the real "breakthroughs in science" is not applied. It is awarded only for "abstract theoretical reasonings", for example, "black holes", "the rate of expansion of the universe" or "string theory", which can be completely irrelevant to our real life.

CONCLUSION

What I consider as the real "breakthrough in science"? The real breakthrough in science, I believe such an invention, a discovery that really need for lot of people that affect people's lives and lead to concrete positive changes in their lives. [6,7] People at first may do not realize that they very needed in this thing (remember, for example, the discovery of electricity, or the invention of the computer). However, a true scientist must always be "way ahead of the crowd", he ought to know including many things which for "the main mass of the crowd" are not known yet. And by different kind of "string theory" a person can be engaged in during a lifetime, without any benefit to society. In this way the scientist, if he gets payment for it, just "eats money of other people" and gives to them nothing in return. In this sense, an ordinary household drunkard, who "pays for the alcohol his own money", seems to me much more deserving of respect than such a scientist.

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