COMMON SENSE AS AN AXIOLOGICAL PRESUPPOSITION OF PSEUDOSCIENCE

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Abstract. The paper deals with the phenomenon of common sense in its connection with the problem of pseudoscientific knowledge. The author position is that the modern pseudoscientists use certain properties of the common sense to continue the production of the converted forms of knowledge, and the common sense, therefore, is an axiological presupposition of pseudoscience. While the ontological basis of pseudoscience is implied into the scientific community itself, often using the language of science or the academic position, the axiological aspects of the phenomenon are based on manipulation with society opinion, the result of which (if the manipulation is successful) is the material profit or fame.

Keywords: pseudoscience, common sense, knowledge, axiological presupposition, science, philosophy.

Introduction

When we deal with the problems of the philosophy of science and with the problem of demarcation of scientific knowledge from pseudoscientific (this problem is often seen as the main problem of the philosophy of science), we should take into consideration that the scientific knowledge is not one and only absolute kind of knowledge, where the propositions about the objective reality are made. Another important type of knowledge is called common sense (which is also called “daily worldview”). By common sense we should understand the sum of randomly and historically developed views and propositions about the world around us, about the connection of human and nature and human moral regulation, aesthetic perception of the reality and axiological attitude towards humanity and nature. It can also be considered as the basic ability of human’s perception and judgments. In contrary to scientific knowledge, the common sense has no systematical structure, theoretical apparatus, separate discourses, and sometimes – even holistic worldview; it is rather close to folklore and mythology.

The common sense has its own propositions, which have less common with the scientific ones. There are, for example, some occasions which human cannot bring to doubt, like the propositions that the Sun will rise tomorrow for sure. The doubts it this proposition can appear in, for example D. Humes skepticism or in astrophysical hypotheses which deal with accountant of the Sun’s approximate date of extinction. But on the level of thinking before the scientific reflection there is no doubt in fact that the Sun will surely rise tomorrow. The main feature which occurs in this occasion (and its analogues) is that they are based on daily, singular, non-systematic experience of usage of methods or phenomena perception.

Even if the method or a kind of perception is ineffective or simply independent from some original settings, these settings are preserved in this method’s/perception integral structure, e.g. in non-traditional medicines (inherited from your granny) or in seeing bad luck all the day when your path is crossed by the black cat. It is connected with the features of common sense discourse and practice – the proposition which is made spontaneously is preserved as integral, and the significance of all the elements that are pointed out is not verified, but if it is – these elements are not discarded even if their ineffectiveness is proved. Thereby, “the black-cat”-omen can be dismantled by the empirical verification on one’s own experience for a big amount of times, but the omen would still be present in the common sense of generations. Our aim is to analyze the role of common sense in the existence of phenomenon of pseudoscience in modern society. To achieve this aim, we use phenomenological, dialectical and inductive methods.

Results

On the level of daily practice of human, the common sense begins to shape in its early childhood not in the form of knowledge, but as a habit to some reactions which is being get through its subjective experience (touch, smell, orientation in three-dimensional space, light, pain and darkness perception etc.). These
stimulations and reactions of the objective reality make human organism, yet unconscious, adjust its interaction with the reality in a certain way. After that, as B. Russell mentions: “When we start to think, it reveals that we have already got a huge amount of habits which can be called «animal conclusions»”. These habits represents that we act in the presence of A more or less identically to the way we would act in the presence of B, and these habits are the result of A and B connection, which took place in our past experience. These habits, when we start reflexing about them, become the reason of such beliefs as: “A is always (or almost always) followed by B. Another, pre-scientific belief, which is common to science as well, is a belief in such more or less constant objects as people or things” (Russell, 2001). So, the common sense formation depends on our experience of interaction with the world around us and on observation of its phenomena. But the past experience and the subjectivity features have also the negative impact on the common sense and science interaction, common sense and holistic and consequent worldview, and can be, vice versa, a basis of creation of the conditions of positive interaction of common sense and pseudoscience. The education, religious beliefs, social and cultural background, moral and ethical principles of the personality can be considered as the factors of subjectivity formation. They are those ones which put a basis to what we can call the common sense and daily knowledge and determine the individual’s behavior towards the society.

And the level of common sense is namely the place where the individual with eclectic worldview is seen. Its worldview can connect the belief in reincarnation, the Christian God (along with celebration of pagan and Christian holidays) and the UFO. Strictly speaking, the religious position of such an individual is superficial and contrarious, comparing to the certain types of religious beliefs, and unconditional belief in UFO (which is based not on personal experience, but on the relatives’ and friends’ talks, books or TV-shows) excludes common skepticism towards “the brothers by mind” existence. As a result, the attitude of individual to the ufology, Vedic science or “the Christian physics” would be less critical of even fully positive. The authors of the certain types of pseudoscientific theories and quasiscientific mythology (such as astrology, dianetics, ufology, paramedicine, Christian science, etherodynamics etc.) would orient their propositions on such an audience rather than on the scientific community: knowing the fact that there is a certain amount of people, the worldview of which includes trust to some marginal (from the position of science) propositions and knowing the erroneousness of such theories wittingly, the science imitator would adjust the format of his theories to the eclectic common sense of this group of people for personal benefit (whether it is material of moral). E.g. the inventor of “the new drug” in paramedicine can lean namely on the authority and “Test of time” of his preparation’s content, which individual knows from childhood. The appellation to the “folk methods” would rise up the success of sales of the new paramedicine preparation. In the same way the folk method can be replaced by the “old Chinese methods” – the individual can have no idea about these methods (even if they exist), but the Test of time has more respect and confidence to the common sense. In addition to the appellation to the authority, the pseudoscientist can lean on the “exclusiveness” of the proposed service: his courses can be “first represented courses in the country”, be “the one and only filial of the foreign company”; he also can be “the one and only seller of the new preparations”. In this case, the accent is made on the part of the society representatives, which can have doubt or fully distrust the “official methods” and are always in search of something new. The right presentation of the goods will make those searchers to accept the suspicious services, represented as exclusive ones by pseudoscientist.

In addition, it also should be mentioned, that the common sense is less critical to sensual data. Even the grown-up individual that has, for example, trust to the certain scientist who demonstrated real achievements, is unable (having no scientific competence to see, that in some private case, the demonstrated data is false (or the laboratory, where demonstration of the results took place, is changed subjectively). The example of this can be the demonstration of perpetuum mobile by the famous scientist to the mass-media representatives. In this case, the mystification is being formed by two factors: the social phenomenon of Matthew Effect (the authority of the scientist and the experience of perception of his explorations as the undoubtedly correct) and the common sense of journalists, who sees the represented invention uncritically because of lack of competence to reveal the fraud. It can be said that namely the interaction of mass-media and the pseudoscience representatives (for mass-media it is the potential sensation and for the pseudoscientist – the spreading of his ideas and potential benefit) is one of the factors of wide spreading of pseudoscientific theories.

Partially, the scientists are the ones to be blame in this problem. Having the reasonable motivation, the scientists who haven’t finished the project yet, avoid giving the promises or hyperbolizing the result of their
exploration. The journalists have hunted A. Einstein in time of his work under the “theory of everything”, but he has died, yet never finishing it, but also having not been saying the empty words about his conclusions. Vice versa, the annoyed scientist can randomly say that the essence of time would be clearer in the next twenty years, which can result into such a headlines as “The time machine would be created in twenty years”. In the other case, the scientific hypotheses can be represented as the discovery. The scientist’s formulation of the kind of “Nowadays, we can suppose that…” is turned into “the scientists proved that”. When it is revealed that only supposition was made, when the paper rumors are refuted, the mass-media even tries to make the scientists the ones to blame in disinformation but they do not blame themselves. In videotapes and the interviews, the words of scientists are being misinterpreted; they are being given the random sense that makes their propositions more sensational and “successful”. As a result, such a tendency leads to mutual exclusion of the scientific community from the society who are able to see the scientific explorations through the TV-programs, newspapers or by the Internet-messages – but not from the specialists. These exclusions are tried to be overcame by the science popularization.

Such known scientists, as R. Dokins, S. Hawking, R. Penrouse, R. Feinmann, S. Kapitsa, E. Kruglyakov, M. Kaku, devote themselves to explanation of such scientific theories as the strings theory, the evolution, the inflating Universe, the black holes, space-time theories etc., on live and simplified language. The problem of the science popularization is, firstly, in relatively small amount of the science popularizers themselves, because not every mathematician, astronomer or physician is able to outline the natural sciences material on the live language, without any complications, and for the huge unprepared audience. Secondary, the author’s outline of the widespread (for the “hard” sciences) theories is always under the threat of solipsism, in this case – it means the threat of the scientist’s vulgar interpretation of the theory or inadequate accentuation on some its sides, or a kind of altering the material through the prism of the scientist’s own understanding. The result is the false perception of the theory by the reader. Thirdly, the series of the important theories is, from one hand, unable to interest the huge audience (the importance of Higgs boson for the Standard physical model is, for example, rather hard to be conveyed to the reader except the abstract proposition that it is important), on the other hand – the scientists themselves can be not interested in the scientific knowledge popularization and the alienation overcoming (Kaku, 2014). The fourth problem is the skepticism absence in the TV channel direction when choosing and showing the popular science programs. That also means that the adequate pop-sci program can be screened simultaneously and equally with, for example, cryptohistorical or ufological one.

As a result, according to the common sense view, the adequate scientific theories are vulgarized and are equated with the converted forms of the scientific knowledge. It should be highlighted that we mean here the kind of television spectators which percepts the scientific and pseudoscientific programs as well without criticism. The authors of such a programs can be not only the special “guesting” charlatans, but also the channel stuff – that is to say, the people, who are not in any touch with science, even not pretending on it (in such a way, the Ukrainian TV shows “Psychics battle” along with the adequate documentary).

The pseudoscience escapes such problems as they are for the science, and the strategy of its creation is almost contrary to the scientific. Firstly, the pseudoscientific theory, as it is rejected in the scientific community, has (as it was mentioned) the character of sensation and the exclusiveness. In contrary to the scientist, the pseudoscientist tries to catch mass-media attention and call out media and social resonance. As the science imitator is oriented not onto the scientific community but onto the common sense, his inventions and theories will vary from time machines and the remnants of Atlantis to people, whom the theory is addressed, being “chosen by God”. Secondary, according to the audience, with which the pseudoscientist “works”, he creates the social background of himself: it can be a bunch of scientific degrees of non-existing academies or being “a wizard by great grandmother”. The huge amount of scientific degrees of non-existing academies or the traditional craft as a part of time tested activity (as it can be posed for a “wizard”) looks more trustworthy to the common sense. Thirdly, if the scientific theory can be hard or even impossible to outline without special terms, the pseudoscience language omits this problem (or vice versa, is turned on to its complete misunderstanding, as it can be seen in postmodern texts that represent quasiphilosophy). The language of pseudoscience can be characterized as the quasilanguage, that’s why its theory has nothing common with the facts of objective reality and sometimes even with the simple logics, that is why the propositions of such a theory can easily be adjusted to the audience. When the science imitator tries to find the investor of his own suspicious explorations, the language of the arguments can really be shady in some cases to make the non-specialist believe in what is said by the person, who is considered to be the scientist. But the
result of the exploration will be represented on a simple language as something revolutionary and able to give the investor profits. In this case, if the subject of funding (Sf) needs the result (R), he is proposed a kind of activity (A) which leads to R. Along with this, Sf doesn’t understand the essence of A, seeing it as the factual reason of R through the absence of competence. And if we consider the pseudoscience discourse as (~S), we can see the following:

\[(A\rightarrow(\neg R)\vee A\in R)\land (A\in (\neg S))\vee \neg S(A).\]

This means that the proposed activity is included into the discourse of pseudoscience and at the same time is excluded from the proclaimed result because the activity doesn’t lead to that result. That is why, the activity leads to no-result proposed but the description of the activity and its practice represents the part of pseudoscientific discourse. A is not supposed to be understood by the funder of even by specialist. The pseudoscientific propositions of an individual, who attempts to integrate with the scientific community, are masked in the same way. The same theory can be simplified and adjusted to the language level of widespread audience and mass-media, and “factual material” of a kind of science fiction is produced without any problems as well – the interest, sensationalism, exclusiveness, the results which cannot exist in science itself.

The common sense, having no opportunity to see the revelation of such a theory (that can be met in the science as well), accepts it in inadequate way. Clear and (at first sight) “self-consistent”, even calming to the common sense, pseudoscientific theory (such as the perpetuum mobile invention or the theory of “human thoughts materializing”, or “the reality transferring”) is able to displace the scientific theory which is hard to understand and which can also be less optimistic.

When we deal with the problem of common sense and pseudoscience relations, we cannot also ignore the frauds of technical sciences according to the special type of connection of the technologies and modern individual. Because of the fact that technologies are connected with the service of all spheres of human life activity, the influence of the common sense on forming of the technical scientific practice is bigger than in humanitarian and natural sciences. At one hand, the demand in society stimulates the development of the technologies that make human life better (from mobile phones to public transport), on the other hand – the even existence of modern human cannot be imagined without functioning of technical devices and processes. The modern man simply cannot survive without the technologies, and its subjectivity is implied into different informational and technological processes: e-cards in banks, the social networks accounts, the individual’s random photos on ultramodern cameras of different organizations recordings, different digital registers and passport databases, where the individual’s personal information is being placed. The human in modern society hardly exists without them. At the same time, the development of technical sciences is ordered to namely individuals servicing, to easing their life conditions, and in the other way – to increase the state control on personality or the control of some private companies on their clients, even (when it comes to geopolitical influence of one country on another) for one country’s control on another one. In this mutual dependence, the certain norms and rules of exploitation of technical devices, the ways of manipulating of the information and materials, the rules of individual behavior at technically specialized objects and prohibitions of some actions, that can result into devices breaking or people injuring, are being formed spontaneously. The sum of this knowledge is called by A. Lebedev “common technical knowledge” (Lebedev, 2006). The examples of such a technical knowledge are the use of Internet, smartphone or PC on the “user” level, car driving, the usage of home conventional devices, the knowledge of road traffic rules and behavior at such objects, as a building area or power station. This knowledge, to our mind, is a part of the modern form of common sense because of its superficial level.

When the problem of the device exploitation occurs, the consumer is often unable to repair the device himself and needs the help of a specialist. In addition, the consumer of technical products has the problems with accommodation to significant changes of the exploitation parameters of the new models of already known devices. Such inadaptability leads to acceleration of the devices damage or even threatens the human life. The examples of this inadaptability can be found when people started using the mobile phones instead of radiotelephones; nowadays it is seen in the driver adaptation to the electromobiles. The common problem for the consumer is anticipated in the transition to the quantum computers (which is already being forecasted in 2020-ies). In certain cases, the individual can act under the guidance of common sense while his actions may need the special knowledge which can come into contradiction with the intuitive conclusions.

All these facts show the incomplete understanding of technical processes and their acting algorithms, that’s why, such a type of knowledge is called common technical knowledge. The consumer “presents” this
understanding as a privilege to technician, the specialist. So we can see the close interconnection between the technical knowledge products and the common sense, and, from the other side – the problems for the consumer while using the completely renewed products for the consumer, in addition to consumer’s inability to deal with the breakage of the device. The pseudoscience intrudes to this sphere in special way, at first – by the fraud, with the false inventions. While using the ignorance of the technical processes, falsifiers create the products that either carry no practical use for the consumer, or are in fact the same goods as they’re already being sold on the market, however, pseudo-invention is posed as much more effective (for that reason it is much more expensive).

The widespread example of such a tactics realization are the so-called “defensive plates” for the mobile phone, which are “used against radiation”, in 90ies of the 20th century. Actually there was no type of the radiation described, as well as, what becomes clear, the defense from it. But on the level of common sense and in combination with the lack of technical knowledge, these devices were seen as the real working devices, while the consumer could fix neither the absence of efficiency, nor the radiation itself. The common technical knowledge is unable to determine the existing problem from non-existing one, while in the device inefficiency the consumer usually can see only after spending money on it (or, vice versa, having the competence to see it), or when getting the information of the fraud revelation in mass-media. In the last case, the mass-media plays the role of popularizers of such an “inventions”, if we won’t take into an account the scientific publishing, forums and social network communities. But the individual, who is out of the scientific community, interacts with the common mass-media, where such a frauds are seldom revealed. The other example are the water filters of V. Petrik, that, again, had to efficiency, but still, thanks to effective methods of their advertising, Petrik succeeded in mass selling of his pseudo-invention to different state institutions, such as schools, the army divisions, administrative buildings etc. In addition to the strategy of the invention advertising, the important role was also played by the absence of critical approach to the “invention” from Petrik’s clients position: the purchasing was made without any revision of the efficiency of Petrik’s water and its difference from the other water, filtered by the other filters; there wasn’t even testing purchase made (by this we mean here the purchase of small amount of filters to see their work). The demonstration of results which was made by the fraudster himself, were juggled, what is clear, but as for the absence of the critical point of view from those one, to whom the filters were demonstrated, independent testimony haven’t been made. Only loud revelation of the falsification by the professional scientists, the voice of science was heard at last, and the purchasers got rid of the unfortunate filters.

Discussion
To summarize all that was mentioned, we should say, that the main theoretical implications of the creation and spreading of pseudoscientific theories and pseudo-inventions through the wide audience out of the scientific communities (from the mass-media to consumers) are the following: unjustified simplicity of the hard or improvable theories (or the absence of any sense in these theories, representing them as the effective ones) or vice versa – the complicated ways of giving the material without any reason for this, which leads to misunderstanding; the sensationalism and facts juggling; the appellation to common sense elements and the authority of the personality; the parasitism on the lack of technical knowledge and the knowledge of the processes of objective reality of the un-scientist, along with using his trust to the authority to person with the scientific degrees. The effect of such a spreading can be considered destructive: the formation of false, inconsistent, mythological-alike, personality’s worldview on the level of common sense, and, thereafter, inadequate attitude to science and the world around us; in addition, the individual can become a victim of the false inventions and preparations (such as drugs or household appliances) and get financial losses or harm his health. The phenomenon of common sense mustn’t be ignored in case the scientific community wants, on one hand, more understanding between the scientist and society, and, on the other hand, - to lessen the harm of pseudoscientific theories and inventions to modern society. The aims of the scientific community in this field should be: the further growth of the efficiency of science popularization; the more open dialogue with mass-media (along with the demand to them to be more honest and objective, even if this will lessen the sensationalism of the news); the increase of intensity in revelation of pseudoscientific falsifications, including the revelation and counteraction on the institutional level, by, e.g., creation of the committees against pseudoscience and falsifications, which would include the speaker-representative of the scientific community in mass-media. This step would enable to spread the information about the pseudoscientist immediately, as a warning to people who are out of the scientific community, and are the potential victims of the his fraud.
References


