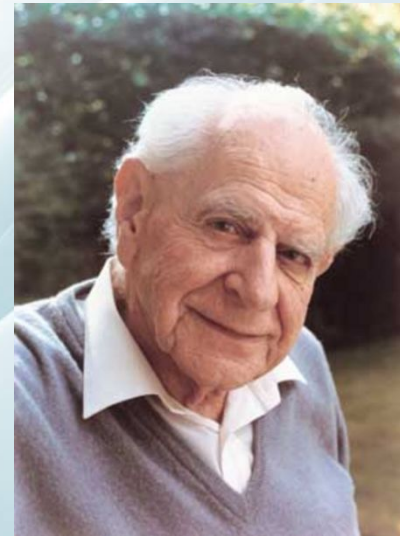


Analyze the principle of conjectures and refutations (falsification) in the Karl Popper's concept of growth of scientific knowledge of.

Karl Popper (1902 -) was an outstanding Austro – English philosopher and sociologist who developed the concept of critical rationalism as a theory of the growth of scientific knowledge, alternative to the views of neo-positivism. To the Main work. Popper: "the Logic of scientific discovery "(1959)," open society and its enemies", "Assumptions and refutations".



The methodological concept of K. Popper is called "**falsification**", because its basic principle is the principle of falsifiability.



What prompted K. Popper to put the principle of falsification in the basis of his methodology?

Usually point to logical considerations, which guided K. Popper. Neopositivist cared about verification of the claims of science, i.e. the rationale for using empirical data. It was considered that such justification can be achieved or using the output of the statements of empirical science from the suggestions, or by inductive reasoning. However, this was not possible.



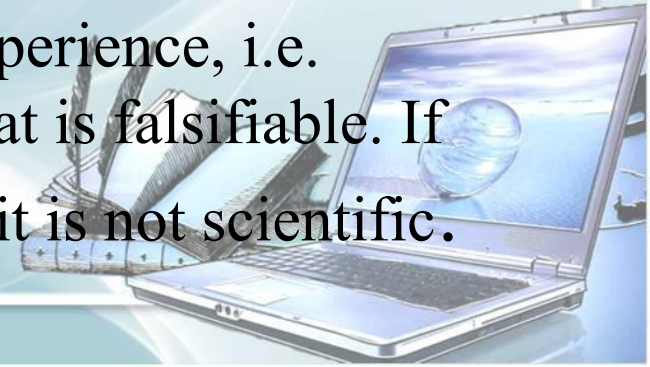
- The fact that the defenders of the verification criterion see a characteristic feature of science in the validity and reliability, and the feature is not science (say, philosophy or astrology) – in the unreliability and unreliability. However, full validity and reliability in science are unattainable, and the possibility of partial confirmation can not distinguish science from non-science: for example, the teaching of astrologers about the influence of stars on the fate of people is confirmed by large empirical material. You can confirm anything, but it is not evidence of science. No total supply cannot be completely justified with the help of private offerings. Private proposals can only refute it.



For example, to verify the General sentence "all trees lose their leaves in winter", we need to look at billions of trees, while this proposal is refuted with just one example of a tree that has preserved its leaves in winter. This asymmetry between confirmation and refutation of General proposals and criticism of induction as a method of substantiation of knowledge led K. Popper to falsification.



- Karl Popper (1902 -) was an outstanding Austro – English philosopher and sociologist who developed the concept of critical rationalism as a theory of the growth of scientific knowledge, alternative to the views of neo-positivism. To the Main work. Popper: "the Logic of scientific discovery "(1959), " open society and its enemies", "Assumptions and refutations".
- Thus, the criterion for the demarcation of science from non-scientific knowledge is the principle of falsification: the statements of science can be refuted by experience, i.e. falsified. Only the scientific knowledge that is falsifiable. If some statement is in principle irrefutable, it is not scientific.



According to K. Popper, the theory should include empirical situations called potential falsifiers. The larger the class of these falsifiers, the better for the theory. This means that the theory is scientific. If the theory does not have a class of potential falsifiers, it is certainly not scientific.



Thus, the main postulates of the concept of K. Popper can be formulated as follows:

- 1. Scientific knowledge is a set of guesses about the world, guesses, the truth of which can not be established, but you can detect their falsity.
- 2. Only that knowledge is scientific which can be falsified.
- 3. The method of science is a method of trial and error.
- 4. Science begins with problems and ends with problems of increasing depth.



Any study starts with a problem. To solve it, the scientist develops a theory that is critically evaluated through comparison with competing theories and empirical data. As a result of this assessment, a new problem arises.

- This cycle can be described by the following diagram:

- **P-TT—E-P,**

- where P is the original problem, TT is the theories claiming to solve the problem, EE is the verification, falsification and elimination of the theories put forward, P is the new, deeper and more complex problem left to us by the eliminated theories.

