

S.SEIFULLIN KAZAKH AGRO TECHNICAL UNIVERSITY

DEPARTMENT OF PHILOSOPHY  
(2708)

# **History and Philosophy of Science**

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# **Theme 6. Basic concepts and directions of the non-classical and post-nonclassical stage of history and philosophy of science**

- **The purpose of the lecture:** a critical analysis of the basic concepts of post-nonclassical stage of scientific development

# **Plan:**

- 1. Epistemological anarchism of Paul Feyerabend**
- 2. Postmodernism in science**
- 3. Bruno Latour: “We Have Never Been Modern”**

# Basic concepts:

- Epistemological anarchism
- Postmodernism
- The uncertainty
- Inevitably
- Multivariance
- The pluralistic nature of the world
- The ambivalence of human existence

# Paul Feyerabend (1924-1994)

- Author of the book "Against Method."
- Epistemological anarchism proclaims the absence of universal criteria of truth of knowledge, and the imposition of such criteria, the state or society is considered as an obstacle to the free development of science.

# Paul Feyerabend

- Follower of epistemological anarchism is against any programs at all.
- Feyerabend does not admit the existence of any criteria for comparison of theories or point in time when they can be compared. According to him, micro revolution in science are constant, namely, when some brave scientist decided to move away from the old proven methods of scientific research or theory creates absolutely not compatible with the old, and opening up new horizons of knowledge.

# Paul Feyerabend

Thus, there are no rules by which one can distinguish the true from the false knowledge or to find out which of the theories is better or worse. Feyerabend concludes that it is impossible to claim that scientific knowledge is better and more informed than religious or mythological. They are equal to each other ways of understanding reality, and reject some of them will be a loss, and not the acquisition.

# Paul Feyerabend

- According to the epistemological anarchism, the only principle which is to adhere to - it is the principle «anything goes».
- Scientist can conduct propaganda of their views by any means.



# Paul Feyerabend

- Feyerabend in favor of the separation of science and state. According to him, standardized education, as well as some taken for public research institutions beliefs, scientific dogma imposed on the people working in this area, leading to stagnation in science, drive it to the narrow limits.

# Postmodernism in science

- Francois Lyotard, “The Postmodern Condition” (1979) - problem of the relation of postmodernism and modern science.
- Postmodernism uses categories of uncertainty, imminence, multi-variant.
- Pluralistic nature of the world and the ambivalence of human existence.

# Postmodernism in science

- The problem of the subject - whether nature remains as a research subject (independent of man and his activities?)
- The problem of truth - whether science strives to achieve it?
- The problem of the objectivity of knowledge - whether the objectivity of scientific knowledge by meeting the subject matter?

# Postmodernism in science

- The problem of creativity - can be a process of social construction of the result?
- Problem of history - the extent to which new knowledge is generated from old, from history?
- The problem of logical relations in philosophy.

# Postmodernism in science

- Knowledge is information goods.
- Knowledge is a product of power relations.

# Bruno Latour (1947 - )

- Author of the book **“We Have Never Been Modern”** (1997).
- Where does faith in science? Maybe science it's just a specific branch of the policy? Academic institutions around the world are working to stop. The juxtaposition of Sciences and Arts is out of date. Formal academic specialization rarely coincides with its actual performance.

# Bruno Latour

- Instead of living for eternity is fleeting projects. Instead of searching for the truth - the order and report. Or maybe neither truth nor eternity never was? Where are we in this case bears?

# Bruno Latour

- Should not at least for fun to imagine that «**We Have Never Been Modern**»? Maybe, just once, and there was a long time there was a certain paradigm of ideas that now does not change arbitrarily (as sadly notes postmodernism), and under the pressure of the changed reality?



# Bruno Latour

- Reality, where there is not only the orbital tourism, online, robot cleaner and laboratory cloning, but where there is no anthropological fault between white people and everyone else. Where social and gender identity - it is a matter of choice. Reality this does not mean that tomorrow will be much clearer, stronger and "cleaner" meaning. She is no longer needed.

# Bruno Latour

- Modern science, for Latour, is to achieve agreements. As a result, incoherent and disparate situations start to communicate and compared with each other.
- This is no exposure of the poor quality of science. On the contrary, it means that we understand how it is formed knowledge.

# Bruno Latour

- To be able to use it and build up, do not lose what is, to review what is in doubt, provide a place that will. No quackery, but a sober assessment of strategies to achieve consensus. That, in fact, is engaged the sociology of knowledge. It offers its own Constitution, a system of common rules by which knowledge functions.

# Bruno Latour

- This Constitution is alternative Modern with its separation of nature and culture and the transcendent God who performs the arbitration function. In our modern times, and the objective nature of the free, that subordinate unified law, society co-exist together, and the time flow is not uniform. No power cannot subdue him.