

EPISTEMOLOGY OF GEOGRAPHY

SUMMARY

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**Key words: epistemology, geography, processuality,
preparadigma, paradigm**

Each of us, we had in time gnoseologic and ontological questioning, whose answer rounded knowledge or, on the contrary, increase our and perplexity. Often, these interrogations have been wrongly made, leading to a wrong answer, leading to an erroneous understanding of the subject or field subjected to interrogation. The many interrogations and related replies born ongoing debates, often contradictory. This process began in the "dawn of mankind", but continues today with a different efficiency from one historical stage to another one. Scientific Knowledge, started with some rigor has led to the division of knowledge in disciplines, to enhance the benefits of "deciphering" the world in a race well-intentioned, but uneven (Some sciences have simply "exploded", others had a slower development, according to the social order or even to their internal structure).

Chapter I is a synthesis of what is epistemology, epistemological approach and how it can act in geography, noting that at the moment geography needs a epistemological decantation.

In Chapter II is presented the evolution of geography, schools, methods, ideas, concepts, all critically viewed, since the geography ebullience from middle of last century until today. Modernism and postmodernism is addressed here, interdisciplinary and multidisciplinary methods existing in geography, much discussed issue of determinism, geo, model, time, space, etc. in geography. This chapter has no other role than to present a real picture of geography at certain times and situations.

In the context of global economic unrest, social, political, scientific and influence, the geography, as other sciences, goes on a tortuous path dictated by the pressures, interests, limits of knowledge, scientific methods.

Also in this chapter is surprised the evolution of geography, strange due to the pressure of social sciences, social orders and political, economic and geostrategic interests. They are also outlined priorities and geographical disputes, semiotics and geographical research. At one point we conclude that in fact, geography is fragmented in several geographies.

The **geography** being the main element of the discourse we have, it is natural to follow its time evolution, pointing out some of its most important moments.

It is noteworthy that, since ancient times, there are descriptions of the Romanian territory by ancient scholars (Herodotus, Strabo, Pilniu the Elder, Ptolemaeus, etc.), descriptions that continues in the early Middle Ages, gaining a special concreteness during the great geographical discoveries of the fifth century.

Chapter III refers to the concerns of the Roman geographers for epistemology, from the precursors of the Romanian geography to the current concerns in Romanian geography.

Epistemology becomes mandatory in conducting scientific research and knowledge, a moment of reckoning when we assess damages and costs, when the defective parts of the mechanism are replaced with new ones, change principles, theories are added, making forecasts, targets are set, future costs and

opportunities are estimated and, most importantly, the scientific truth is proposed and the improvement of methods and concepts that serve this purpose.

Romanian School had a slight geographical mimetic character, lending world geography (American, Russian, French, English), theories, methods, concepts, hypotheses, laws, etc.

In these circumstances, we can not talk about a Romanian geographical epistemology in the true sense of the word.

But, we can talk about a review, an accounting, an assessment of Romanian geography that could underpin a real and useful epistemology.

We say this because at present we can not talk about an internal epistemology, own to the geography; therefore, the general epistemology could be applied to aiming at a complex understanding of the scientific knowledge, by direct analysis, a logical, formalized analysis of the historical-critical and experimental-genetic one.

The explosion of new tangent science knowledge or with applicability in the geographic knowledge, each of them operating with special mechanisms (so, with a special epistemology, too), was certainly an impediment to creating a “philosophical” view on the Romanian or global geographic science.

It is surprised the work of some remarkable geographers concerned also by the theoretical part of the geography. Among them, stand out Simion Mehedinti, George Valsan, Vintila Mihailescu, Ioan Donisa, Alexandru Rosu, Ioan Mac, Danut Petrea.

Once again I highlight that my interest in this topic was generated by the numerous discussions I had with two exceptional people whom I consider my "masters".

It is the geographer Professor dr. Ioan Mac and epistemologue Professor dr. Lucian Culda, two researchers who have different research areas, but their theories met in the upper tier where they arrived in scientific knowledge to many common conclusions.

The next rows are only a timid summary of the discussions that have focused on the existing geographies and epistemologies.

Professor I. Mac points out that: “We overcome the mentality that geography is a science because it has a way of knowing, this being substituted by the formulation and verification of logical constructions, called as appropriate models, theories or paradigms. Thus, geography is a science because it has its own theory (M. Bunghe). Those products of research that use to the formulation of verifiable predictions about reality are SCIENTIFIC MODELS, and the models that are not scientifically validated will be considered imaginary models. The contemporary scientific horizons are projections of the concepts established as fundamental, of which we mention: evolutionism, structuralism, essentialism, relationism, environmentalism, utilitarianism, functionalism, etc.”

Epistemology is a study of scientific knowledge value of objectivity and truth of science results.

Currently, it has a growing trend to transform from an external and ulterior reflection on science into an essential moment of the development of the scientific fact, transformation caused by the fundamental changes occurring in the current science. This situation has brought epistemology in the situation to put its own level of reflection and decision, issues of validity and foundation of its approaches.

The current development of science and, implicitly, of research know a double aspect, constructive and thoughtful, tending explicitly from inside it to its own methodological and gnoseologic critique.

Current scientific knowledge requires an "epistemological reconstruction", an "epistemological pluralism" normal for the existence of numerous states and features of scientific knowledge.

The epistemology provides to science not only problems to be solved, but it also suggests ways to address and resolve them, finding practical ways to use the results of scientific research in the mechanism of knowledge

The current knowledge needs a continuous diversification of the interdisciplinary communication channels, which gradually leads to a transformation of the disciplinary sciences in interdisciplinary science.

It also requires a logical reconstruction of scientific disciplines, by the appearance at the level of the fundamental theories and the functional programs of some integral perspectives, non-reductionist.

The knowledge subject "itself" is an unknown that we are approaching developing scientific knowledge. The trouble is that we treat "the object itself" as "subject to us" and this is the "object" that we have access to a historical context, moment at which knowledge is perceived as correct.

"The purpose for us" is the reference area for research, leading and running the study segment.

The research will result in data that may confirm or overturn "the object for us", or deny it, resulting in different ways of knowing. Analysis of consequences of these different channels of knowledge is uneven, because some versions remove others from the competition. The difference in these results force us to give up to some of them for other ones.

The epistemological approach of this situation creates the possibility to create comparative variants.

The concerns of geographers need to diversify and to exploit the new resources provide by the technology.

It must find out that it is an incomplete science that must complete the area of knowledge with new segments. Why do I say this? Because, for the moment, we have the technical means which enable the study of magnetic, energy, bioenergy fields, but yet the geography and implicitly the geomorphology, do not.

Maybe because most people who practice geography are not at the level of a real research, which would allow a different approach to the geographical knowledge.

Current geographical knowledge is limited to the senses and their transducers (instruments, technique), which brings us to where we are not sure that we surprised the inner phenomenon, especially because the reality is an accumulation of dynamic "discretions".

We understand the reality in a "noesic" [noezos = sense (Greek)], feeler register, just guessing that reality extends far beyond our understanding, somewhere in "enismic" [enizos = enigma (Greek)], where we can not know its limits. According to the "Superstructure theory" of the late Academician Eugen Macovsky, the logic of the living and reality is different than that which is within our reach.

Therefore, knowledge will have to go beyond the usual senses and make a step into reality with extraperceptive, paranormal elements, however surprising and fanciful it may seem to be.

The psychics or paranormal reality is now, here, and we don't know it. This is a challenge that we are not allowed to miss.

Since the theoretical knowledge is not cumulative, it is required to be evaluated only theories. There are also useful assessments of the interrogation procedures that are outlined in succession, within which the theoretical studies are conceived. Pressures being higher for evaluating theories, they are given more attention. You must outline several research horizons to be aware of their characteristics, to find their limits and inconsistencies between them for their evaluation to become a study issue.

'There is a need for assessing epistemological horizons, highlighted to identify the interpretation able to function as paradigm, as satisfactory interpretation'.

Here are the three perspectives offered by processual epistemology. Epistemological research stage contains data which make possible processual reconstructions in geographical research, so that it can produce unification and aims to produce a comprehensive explanation of the geographical opportunities to be involved in the unit interrogation of geophysical.

The analyses performed previously, although brief, are sufficient to give us the epistemological position, not only in cognitive processes, but also in geographic information processing and thus, geographical knowledge

Previous analysis brings into focus the necessity of a connection between the geographical research stage and the epistemological research stage, which means connections between the geographical competence and the epistemologic competence of the geographers.

When epistemology was still in the philosophically stage, geographers have taken information from the empiricist explanation of epistemology (particularly the geographers located in the Anglo-Saxon social space), from the rationalistic explanation of epistemology (particularly in the Latin social space), and from the speculative explanation of epistemology (particularly in the German social space).

Such customization of the geographical research had and still has extensive consequences.

Also, there are highlighted the features of the organic processual epistemology.

The organic conception of processual knowledge makes it possible to uniformly query the geographical existence, as mega organization integrating the whole possible processes, not only the processes successively updated until now and accessible to some types of queries, in certain interpretive horizons.

The processual explanation of the existence of organic existence and geophysics can be used as models framework to explore that way of knowledge designed for existential areas with other properties, which prove to be reductionist when they are used to explore mega-organizations that are processualities.

By identifying and taking into account the processual nature of human beings and, therefore, the social existence that people generate and maintain, new opportunities have emerged for the query "knowledge."

THE OBJECT OF STUDY IS CLOSER TO THE OBJECT ITSELF AND BECOME POSSIBLE THE QUERY OF THE ISSUE NAMED FOR CENTURIES "KNOWLEDGE" CAPACITY AS A COMPONENT OF THE SOCIAL CAPACITY OF INFORMATION PROCESSING.

On the other hand, the identification of interpreters made it possible to separate from the "study the psyche", exploring the connections between human bioprocessors, human interpreters and socio interpreters.

Both aspects made it possible to nuanced locate the analytical work in the processes that maintain the development of the social existence of people

IF THE OUTLINED NTERPRETATION OF IS THE SATISFACTORY ONE, IT CAN FUNCTION AS PARADIGM IN THE ANALITICAL ACTIVITY.

Chapter V presents a new attitude in the epistemology of geography, based on the processual organic epistemology, within which I locate my own studies.

1. – this makes it possible to correctly identify the **Object Itself** which can harmonize the geographical studies developed in different epistemological horizons; I mean the geophysical existence the - megaexistence.

2. – locating my own analysis in the processual epistemology, it becomes possible to focus the studies on the processes that characterize the evolution of geographical studies, in order to identify the trends that the Object Itself – The Geophysical – introduce them with necessity in the evolution of the theoretical geographical research evolution.

These assumptions necessarily flow from processual epistemology, but they can be deducted neither from the deterministic-causal approach nor from the systemic or interactionist approach.

The epistemological options that I mentioned made possible analyses in an assessment of epistemological contributions to the development of geographical knowledge.

In geography, the epistemological approach is closely related to the horizon on geographer who is concerned and his cognitive possibilities.

Previous tests highlight the required character of some connections between the geographical research stage and the epistemological research stage, which means also connections between the geographical competence and the epistemological competence of geographers.

When epistemology was still in the philosophy stage, geographers have taken information from the empiricist explanation of epistemology (particularly the geographers located in the Anglo-Saxon social space), from the rationalistic explanation of epistemology (particularly in the Latin social space) and from the speculative explanation of epistemology (particularly in the German social space). Such customization of geographical research had and has extensive consequences.

As in the epistemology have been developed the epistemological approaches, they became reference systems for some geographers; in this way, in the geographical research could appear new approaches that tend to replace the approaches that the philosophical epistemological studies made them possible.

The situation on epistemological positions opens the way to large reconsiderations in the geographical research.

The geographical studies are narrowed targeted when they are not deemed to be contributions to the unitary explanation of the geophysical.

For geography, a scientific revolution would not lead to a paradigm(s) change, but to establish a paradigm capable of producing an action for the reconstruction of geography, in which to be built the models, instruments, objectives and especially the languages able to relate the geographical research and knowledge without losses or distortions of meaning

It would make the transition to a new horizon of knowledge and interpretation, a conversion of geographies to a normal knowledge of subject matter and renunciation to the narrow knowledge within the disciplines that make up the geography.

This transition should not be a forced one, because it is hard to believe that all geographies will abandon the practices of a lifetime and to the scientific horizons in which they have formed and work for embracing something new, a new "tradition".

In the moment when it appears for geography, a paradigm would be extremely limited as „scale and precision” and will gain its paradigm statute when it will succeed to solve the acute problems of geography better than its alternatives. A paradigm arises hardly and should be tenaciously maintained by those who proposed it and especially by those who understand and accept it. The emergence of a paradigm in geography would propose a novel paradigm structure which should not repeat the previous proposals.

Why we need a functional paradigm in geography? Because if they had accepted a paradigm, the geographers obtain a criterion which allows them to choose those issues at which the paradigm (if accepted) has solutions.

We mentioned earlier that in its evolution, geography missed several "turning points" (to quote Fritjof K.), points where, if having a natural development, they would have to change the way "attacked" by the human sciences, economical and military pressure, continuing thirst of industries for new resources.

Of course, the first moment could be Einstein and the **Theory of Relativity**, moment when the geography disposed of the „time“. Only then the subject of study were really becoming OBJECT and the geography could become GEOPHYSICAL.

Then came the "Quantum Theory", "Schumman Network", "Hartman Network" and a long way to the "String Theory" or the „BOOTSTRAP" of Goffy Chew.

The accelerated development of science and scientific theories influenced relatively little the geography. Geographer looked carefully around him, looked up to heaven from time to time, But rarely looked at his feet, to penetrate to the primary brick of his object of study, the microcosmos, the place where it can be identified in the future THE TRUE PARADIGM OF GEOGRAPHY.

When I say that, I think, of course, to the "keramidion", the atomic or subatomic brick, element that constitutes the "object itself" studied by the geography as a whole or by its subjects.

There are many hypotheses, theories, concepts which, geography, hitting should bounce off, more or less, changing direction.

The paper is useful because it opens new theoretical approach perspectives of geography, by epistemological approaches, which make possible a revival of geographical knowledge.

Synthesis

The author of the Doctoral Thesis “THE EPISTEMOLOGY OF GEOGRAPHY” aims to apply an epistemological approach on geography, and highlights the fact that the geographical knowledge reached a stage that could be identified with "dead ends" or "open roads", this state requiring a revival of the geographical research able to place the geographical knowledge at the upper tier.

This goal needs us to approach another research vision, to leave the research that “face the past” and to approach a new modality of knowledge that "face the future", asking ourselves how to recognize the satisfactory interpretation of knowledge.