

METHODOLOGY OF SOCIAL COGNITION IN SEARCHING FOR METHODOLOGY

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Abstract: The paper focuses on the peculiarities of science and social-human cognition development in the modern world. The scientific essence of the social-human cognition is questioned by the change in social reality, influenced by high and computer technology development. This calls for social cognition to be transferred from the scientific field to the fields of art.

Metrological foundation of science is one of the arguments for this transition.

Metrology methods are supposed to be applied to the subjective reality assessment, which is not always possible due to the fact that the subject of social cognition is a part of the object of cognition.

Keywords: social-human cognition, activity, measurement, methods, methodology, paradigm, subject, subjective reality.

Introduction

The complexity of modern world leads, on the one hand, to the disciplinary differentiation of scientific knowledge and, on the other hand, to active integration of its results.

Multidisciplinary knowledge is formed, scientific research results are becoming of more indirect and stochastic nature and have significantly less impact on people's minds, fundamental beliefs, and culture.

Natural science cognition interacts with social-human cognition, with the methods of the former entering the latter and vice versa.

Nevertheless, the history of natural science is not natural science itself.

Since the birth of humanity social-human knowledge exists as the knowledge of people's spiritual life and culture.

1. Methods

Philosophical hermeneutics and interpretatism represent the methodological framework for the study at hand with the content analysis of literature on social-human cognition methodology being the main method of research.

2. Discussion

Methodological boundaries between "sciences of nature" and "sciences of culture" were acknowledged by the scientific community after G. Rickert's *Sciences of Nature and Sciences of Culture* [1] being published.

However, first attempts to work out formal rules of social-human cognition acquisition and assessment were taken in XVI-XVII centuries, with F. Bacon's

Great Renewal of Learning [2].

Experimenting, testing and elaborate algorithms of actions replaced authority and tradition, that prevailed before.

R. Descartes urged to question any given information [3].

G. Vico's theory raised the question of social-human knowledge being fully independent from the exact science methodology, which again called for experiments [4].

I. Kant juxtaposed nature and morality [5].

G. Hegel urges to address logic and history [6].

Marxist research strategy opened a new page in search for methodological foundation of social-human cognition.

Its foundations defined the economy and class struggle.

A. Comte's six-volume *The Course in Positive Philosophy* proved the connection between the sciences based on the connection of its objects, with facts being the basis of any knowledge [7]. Thus began the dominion of natural sciences and quantitative data of scientific research, positivism paradigm was formed and applied ever since to social-human cognition as well in the pre-digital era. Nevertheless its opponents sought to prove that spiritual life foundations are irrational and cannot be calculated.

The developing pragmatism prioritized "pure", everyday experience which included both rational and irrational aspects of cognition. Only around the turn of the XX century the boundaries between sciences were possible to justify. Which, however, did not put an end to the discussion. Methodological

cleavages between the adepts of qualitative and quantitative approaches to research lead to the “paradigm wars”. Today they are striving for dialogue.

The Vienna Circle members urged to address the “controlled knowledge”, based upon calculations and logic (primarily mathematical) [8].

Meanwhile, phenomenology and hermeneutics are developing. Hermeneutic methodological strategy in social-human cognition emerges and becomes the leading one in the form of interpretatism paradigm [9].

A person in social-human cognition is unanimately declared a creative element and is included in social structures.

That is why the factor of the social space ever-expanding context is essential.

The rapid development of science and technology and their implementation into everyday life in the second half of XX century leads to measurements and calculation universal application.

Development and progress are viewed primarily on the basis of quantitative data: level of resources, income distribution, life expectancy, access to social services, etc. [10-13].

However, in the face of growth of economic prosperity and consumption, “the great disruption” took place in the area of social values, as reflected in violence increase, new forms of social disruption, weakening family structure, people lacking trust to other people and political institutions, the loss of moral compass and self-control [14-15].

Social studies scholars applied for the computer system dynamics model of J. Forrester and revealed that the second half of the XXI century is destined for collapse if the current tendencies of population growth, industrial and agricultural production, resource consumption and environmental impact in the countries under consideration persist [16].

It is confirmed by other experts’ assessment of the aggregate national wealth data and the tendencies of its change in a number of countries [17-18].

In the face of the late XX century world changes a new methodological movement is formed. Triangulation favors multiple research strategies [19], complex research, cross-method researches, mixed methods, etc.

Combined research methods are defined by authors as “pragmatic philosophy” [20].

However, combined methods were not justified epistemologically till now.

Metrology in the form of various calculations was integrated into the search for new social-human cognition methodology foundation.

Nowadays the existence of social-human sciences is questioned more than ever before.

Many universities worldwide exclude social and human faculties from the scientific scope and attribute them to the field of arts.

Metrological foundation of science represents one of the arguments for this trend, which is reflected in the metrological culture genesis.

Scholars reason it with the calculations being the basis of people’s relationships with each other and with the environment, because that way common understanding of various objects’ and phenomena’s sizes, forms, laws and ways of their interaction are generated.

Ancient philosophers (Pythagoras, Plato, etc.) that tried to find the measurement for people and society are considered the pioneers in metrology theory. This opinion is important when analyzing the contents of the virtual reality content of social networks.

In the modern world, full of rapidly developing computer technology and evolving measuring procedures, attempts to include metrology into social-human cognition and justify its methodological credibility increase. This is justified by research in the field of artificial intelligence.

Metrology community members reason the necessity to prove metrological validity of social-human sciences.

They often speak of “establishing the reference base of the objective measure metrics of genetically programmed sense identity of the majority of people and the adequacy of life” [21].

Social-human scholars repeatedly attempted to assess the humane in a person.

For instance, J. Bentham wanted to work out the “happiness calculation” criteria (felicific calculus) by optimizing an action appropriate for achieving this happiness [22].

He took actions of “the greatest happiness of the greatest number” as a measurement to work out the calculation of these actions under the corresponding circumstances.

Then he faced insurmountable difficulties with selecting the measurement unit of the optimal action.

This issue could not be solved for every particular action possessed its own measurement units, thus making the calculation impossible, because only

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comparable objects can be compared.

Next researcher to try to implement metrology to social-human cognition was A. Quetelet.

XX century saw the formation of P. Lorenzen's protophysics, based on eternal forms of geometry practice applied to the development of high-precision tools and weapons. A priori norms, standards and technical requirements were introduced. Moreover, M. Weber applies metrology methods to the design of the ideal types and reality correlation scale [24]. The examples are numerous and can be the subject of a separate research.

To my mind, in search for the basis of social-human cognition metrological foundation one should pay attention to its procedural nature, it reflects constant people's activity.

Thus, the results of such cognition are less predictable and more liberal, less prone to being calculated and measured, in contrast to natural science cognition. In declaring metrology and its methods the methodology of social-human cognition we accept the incomplete notion of the object of cognition, because the subject of cognition is included in it.

The subject has to study itself as an object, thus being supposed to calculate and measure himself.

Probably to make such research objective?

Whole history of philosophy highlights before the digital era that the most difficult task is to learn and understand yourself. In fact, the choice of methodology, research methods and procedures, their description are presupposed by the researcher's personality.

Thus, social-human cognition puts different levels of subjective reality (from social to individual in their continuous interaction) in the spotlight. It is subjective reality, non-material substance with not always physical parameters, that is being comprehended.

A person's consciousness, given to him in a form of subjective interior experiences, represents the ontological foundation of subjective reality [28]. Human consciousness is ideal by its nature and thus cannot be measured, although it is "hidden" in a person's brain. However, this does not mean that in the future development of metrological research it will not be investigated. Today the only parameters that can be assessed are those of the physiological brain process, that serve as a vessel of consciousness (nerve cells electric capacity, their excitation frequency, spatial structure of excited neurons, etc.).

But person's views and judgments, as a result of his brain working, cannot be assessed for the time being.

Even with the judgments coinciding we cannot evaluate their volume and their impact on person's behavior, which is not always instant, sometimes it can take years to reveal itself. This is reflected in the developing studies of neurophysiology, psychoanalysis, criminology, etc.

The newest social process assessment methods confirmed and empirically proved the absence of strict coordination between economic growth and social and educational area improvements, etc.

High achievements in these spheres proved to be possible even without economic growth, but due to the priorities and motivation in people's activity, which can not always be measured.

With the help of modern technology we can only measure some psychophysical reactions of organisms on some changes in world, but not thoughts and meanings of these changes. Every single person is unique and peculiar.

Moreover, the evaluation procedure and its results are compromised by the calculating technology itself at the present stage of its development, for example, the researches conducted with an electron or optical microscope and so on.

To carry out a calculation one should distinguish the measurable features or characteristics of the research object that condition its discrepancy or affinity with the other objects and are revealed in their relationship.

Feature is a qualitative category, but for quantitative description of the object's features, the researcher needs a value (a feature of something) that can be distinguished from other features and evaluated, among other ways, quantitatively.

It is important to note that this value is not independent, it only exists together with an object that possesses the feature which is expressed in that value.

Therefore, nowadays social-human cognition is experiencing serious changes that call for new research programs.

In the mid-1990 a new term appeared in the works of M. Castells, convergent technologies, a term, describing technology and information society transformation and allowing to establish new interactions among different sciences [29].

This is in fact a statement that postulates a new reality forming, both a subjective and an objective one.

On the one hand, rapidly developing computer

technologies offer an opportunity to research into a person, primarily, his brain.

On the other hand, new brain simulation and human simulation opportunities are emerging (for instance, Blue Brain Project with its goal to develop a full computer model of separate neocortical columns, the smallest functional unit of the neocortex).

In such conditions the very notion of a human being has to be reevaluated, because now the issue is not human nature improvement (medicine, prosthetic limbs, prescription glasses, etc.), but his own transformation and modification.

Can ideal measurement become real when a human stops being a human in the traditional sense?

The environment in which humans live becomes more and more artificial, prone to being shaped and constructed.

Unification and standardization tendencies, offered by metrology, inevitably, explicitly or implicitly, lead to the resistance to them: "The communes of resistance defend their space, their places, against the placeless logic of the space of flows characterizing social domination in the information age.

They claim their historic memory, and/or affirm the permanence of their values, against the dissolution of history in timeless time, and the celebration of the ephemeral in the culture of real virtuality.

They use information technology for people's horizontal communication, and communal prayer, while rejecting the new idolatry of technology, and preserving transcendent values against the deconstructing logic of self-regulating computer networks.

And they support the use of science and technology for life, while opposing the domination of life by science and technology." [30: 298].

Although moderate managing and guidance would meet the world community interests.

Conclusion

As a result, quantitative data of measurements and calculations calls for a qualitative analysis.

A combination of quantitative and qualitative methods can increase the reliability of social-human researches.

There are serious restrictions that lie in the fact that the discrepancy between qualitative and quantitative is situated not on the epistemological or theoretical level, but on the methodological level.

As a matter of fact, this discrepancy is, on the

one hand, between objectivist and positivist research and, on the other and, between subjectivist and constructivist research.

Indeed, measure terms are often used in social-human cognition, being a part of its thesaurus, but measurement methods represent only its means, not more so.

The description and explanation of cultural phenomena, such as belief system, patterns of social coexistence, family practices, religious dogmas, etc., cannot be carried out with metrology methods.

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