

Particle and galaxy-like theory

In the name of God

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(Epistemological theory)

By: Hamid Rajaei

Introduction

Particle and galaxy-like theory (P.G.T) is an epistemological theory, presented by Hamid Rajaei (2016) explains that every imagination and confirmation we do in our daily life or in scientific endeavors, behaves as particles and astronomical object in galaxies in our mind, simultaneously. P.G.T is a theory considers the human mind as a common space and any imagination and confirmation behaves like astronomical object behave in galaxies. This theory includes three main parts:



Part I

In this theory, Rajaei claims that all branches of knowledge throughout history of human being can be viewed as a unified and integrated whole. He explains that various branches of human knowledge, although differ in terms of source, subject, method, and goal, are all explaining a unified world with no discontinuity. He believes that scientific structure and its behavior are similar to the world of particles and galaxies. With the difference that our mind works both algorithmically and analogically, but the galaxies only behave algorithmically and under the serious rules as far as we know.

It means that the most basic and essential elements of human cognition are actively available in all body of knowledge. All cognitive products that can be achieved through senses, reason, experience, and intuition are generated through the interaction of different knowledge with the basic cognitive elements in a galaxy of comprehension (scientists' communal common sense) The difference is in the type of interactions and communications between the various scientific approaches in this galaxy. Rajaei claims that the dominant logic in human communal mind is reason and rationality both but in the galaxies and physical world is just algorithms. He says this duality in the logic of knowledge cause a fractality in our scientific progress.

Part II

Rajaei in the second part of his theory claims that knowledge in the current era has been passing through three important phases.

The first phase: It's been called "Library-Shelf Phase." In this phase, scholars, scientists, and researchers more or less focus on their own particular field of study and do not have much constructive interactions with other fields of knowledge. In this period, there is not a great deal of interdisciplinary studies (with exception of some fields that are fundamentally related to one another, like physiology and chemistry).

The second phase: It's been called "Particles-Galaxy Phase" [The scholar chose the same name for the entire theory as well]. In this phase, due to the evolution of the new era of communication and interactions, as well as the outburst and growth of the knowledge and skills, human knowledge, inevitably, merges into a world of dialogue & review.

The third phase: It's been called "Purity Phase" in this phase, knowledge and science gets matured and moves toward perfection. Knowledge will be refined from endless arguments and marginalization. In spite of the expansion of themes and scientific areas, knowledge will form into a more purified, homogeneous, and subtle body. In fact, scholars through science and knowledge understand and discover some aesthetic dimensions and mystical perceptions of the universe.

Notes

Developed countries have passed the “Library-shelf phase” to some regard, and almost all of the knowledge has been emerging into the second phase. In Rajaei’s theory, it’s been emphasized that not a single course of knowledge or science shall grow in isolation from other kinds of knowledge. Unfortunately, in eco-scientific systems of the world, there is an imbalance in the adoption of deductive and inductive scientific methods. However, we should embrace and celebrate the emerge of the new phase in world of science.

Part III

In the third part of his theory, Rajaei mentions some points on the worldview of scientists and the relationship of this epistemological understanding of science with the efficiency in the structure and content of education and research in the world. Any kinds of science (ex. humanities, theology, natural sciences, etc.), must endeavor with maximum synergy and with every reasonable method to produce knowledge, explain scientific phenomenon, and ultimately reach a more holistic understanding of the world of science. This needs many reformations and revisions [if we don’t call it revolution] in the conducts and methods that scientists currently use.

Science throughout the history of mankind is always evolving. Evolution of science does not necessarily mean dispensation of previous knowledge and building a new one. There is no end point and perfection in scientific understanding.

Knowledge, in the light of the broad dialogue of all branches of knowledge and consistent scientific debates as well as respect to the collective wisdom of all human beings, grows. Therefore, the most important thing is to work restlessly toward creating and expanding the proper platform for a “perfect dialogue.” A “perfect dialogue” is a non-prejudiced dialogue that does an honest attempt to discover and expand science and knowledge. Meanwhile, the necessary conditions for freedom of expression, political and social security and noninterference of science-unfriendly motives (explained fully in Rajaei’s work) shall be obtained.

One of interesting ideas that Rajaei talked explicitly in his work is: "Today knowledge surpassed the capacity of books and also it cannot expand in isolation anymore." Rajaei believes that even though books have always been a trustable and user-friendly place where elites and scholars save and transfer their valuable ideas and sciences within, but in the new era, knowledge needs medias that can be edited and changed in a faster paste since it can help media to increase its efficiencies in wider dialogue platforms. He believes that systems, such as websites, free encyclopedia, face-to-face conversation conventions, interdisciplinary conferences, and circulating articles are much more effective today.

Rajaei's theory background

Many different theories in "epistemology" and "philosophy of science" have been introduced in the world of science so far. Most of the challenges for these theories include the value of epistemology in various scientific fields, defining ontological aspects of cognition, refining methodological and configuration of science, and distinction between science and non-science (scientific criterion).

Moreover, explaining the interaction methods between various scientific fields including linguistic and non-recognition with sociological backgrounds in social institutes is a common subject scientists have been work on for years. Meanwhile, more challenging discussions such as "connection of science and religion" have been prominent. Throughout the time, there were ups and downs for these discussions, which mostly rooted in late medieval and early enlightenment. The concern of "the possible interaction between science and religion" is one of the main concerns of science for today and future.

Also, views on the relativity of science and religion in various subjects, such as conflict, independency, dialogue, and integrations have been noticed and discussed.

Rajaei has spent many years explaining the relationship between science and religion and therefore has taken many books and ideas. The Middle Age and scientific events of the Renaissance period provide a good but

insufficient inspirational investigating source. Among the scholastic philosophy, the Galilean intercourse, and the steps taken in the methodology of science, which led to the purification of the church's teachings under the heavy shadow of positivism and the crises caused by it, linguistic theories were redressed and its pinnacle continues till today.

But studies of various perspectives, as well as the study of what is going on nowadays in this field, call us to study matters beyond the relation of science and religion and move toward the explanation of behavioral mechanism of science. In the light of this explanation, we can classify the areas of knowledge and then deal with the relationship between science and religious teachings (here Islamic teaching to be specific). Rajaei's theory is based on this very subject.

Characteristics of Rajaei's theory

Although this theory has many similarities with other theories in this field, it has its unique quality. This theory is not to challenge other ideas and believes in the integrity of knowledge in general.

In his theory, Rajaei explained the kinds of changes that have taken place in human intelligence and knowledge thoroughly and carefully. These developments have been microscopic in many times and macroscopic as well to the extent of paradigm shift and scientific revolution.

In this theory, religious knowledge and scientific knowledge are considered as an integral and consistent knowledge in one unified galaxy. In fact, the definition of "science" in this theory includes everything that can be reasoned, justified, considered, revoked, and shared. Therefore, the discussions of this theory include theology and the relationship between science and religion.

In this theory, rational and rationality methods, deductive and inductive, empirical, and apocalyptic,..., all have been considered. Rajaei explains in detail how we produce all our knowledge through "rational and rationality methods" and under the supervision of wisdom and the logic of exploration. All scientific methods, collections, judgments about resources of knowledge, and its configuration and goals, as well as the amount of epistemological creditability, work under the same method (in

rational and rationality methods and under the supervision of wisdom and the logic of exploration), context, and mechanism. Rajaei believes that all the various scientific methods can be reduced to one comprehensive method, even though they seem different in manifest and appearance.

The explanation of the integrity of knowledge in Rajaei's theory is that all bits of knowledge are normatively directed toward the elimination of contradiction, the formation of a comprehensive understanding, and the elucidation and production of broad scientific concepts for the full explanation of phenomena. Therefore, contradictions and misunderstandings in the body of knowledge do not violate the unified tendency of knowledge towards integration and assimilation.

He believes that studying all scientific concepts in the galaxy of knowledge leads us to the conclusion that the connection among various and different concepts is not only conjunctive but also vascular, in the sense that most concepts are constantly interacting with each other within common space where conceptual trading for simple or complex parts of concepts is possible.

It seems that during the Partial-Galaxy-like phase, the general anatomy of knowledge acts like brain wherein perceived concepts of each science are connected to their epistemic neighbors by conjunctions similar to axons and dendrites. *This connection is not mechanically though; it is quite organic*, which makes an *intelligent relationship* among components possible.

In his theory, Rajaei enumerates various types of epistemic transformations. He explains the new world of knowledge that describes the optimal state of knowledge and considers it on the ontological, epistemological, psychological and sociological level. He redefined many terms that have been already written in his late Book: Philosophy of Knowledge for producing knowledge (in Persian)

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