

REDISCOVERING THE POSITION OF PHILOSOPHY AS MOTHER OF ALL SCIENCES: A DIALOGUE WITH THE EMPIRICAL MODERN SCIENCE

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Abstract: The famous definition of philosophy came from the Greeks words *philo* and *Sophia*, which means love of wisdom. It follows that to love wisdom means to understand the highest and first principles of everything. This was the reason of philosophy to be the mother of all knowledge before their disintegration from it. Due to this background, philosophy main task is to search for the truth, by using human reason. However, the empirical modern scientists claimed to continue this task by using empirical method, and abandoned reason. When knowledge transformed to empirical investigation, it became commodity like any other with its specific values. The world embraces the fact, which can only be verified empirically. This is why the author of this paper, has decided to bring into dialogue philosophy and modern empirical scientists to see how they can find the nexus to re-integrate the lost connection. As it has been argued that, critical and reflective mind is a catalyst for scientific and innovative technology. It is hence the aim of this paper to re-discover the position of philosophy as mother and queen of all sciences.

Keywords: Philosophy, Empirical Science, Modern Science, Dialogue, Mother science, Rediscovery.

1. INTRODUCTION

This paper aims to introduce the roles and position of philosophy as the queen and mother of all sciences. It is my argument that, philosophy through its starting point of wonder and the question why, builds the strong foundation to the rest of knowledge that deals with the how part of phenomena. Unfortunately, they loose an important connection with philosophy, which would strengthen more their field of study. However, there is big discussion about which method should be trusted for searching truth. Moreover, the interest of this paper is on reason and the empirical method. Unfortunately, the empirical method used by modern scientists in knowledge investigation has some weaknesses that leave us in a limbo, as it deals only with the appearance, while, as we know that, reality or truth is more than what is represented to our senses. Therefore, I contend that the modern empirical scientists should consider and appreciate the role of philosophy as not only a starting point but also the conclusion of all knowledge. Empirical scientists should embrace philosophy because it provides them with strong foundation of innovative and creative mind to come up with new tech and solutions.

The meaning of philosophy

Philosophy since ancient times has been recognized as a study about everything. Refers to the study that uses a critical and rational approach toward different subjects. It originated from two Greek words; philo that means love and Sophia for wisdom. This implies that a philosopher is a person who loves wisdom.

Philosophy as the Queen and mother of all sciences

Since ancient times philosophy was regarded as the queen of all sciences. As it was articulated earlier, this was due to the fact that at the beginning philosophy constituted all branches of knowledge. It follows that, philosophy knows well the intrinsic value and meaning of these sciences, even if for today they have altered and adopt different terms, but etymologically, they are rooted to Greek philosophy understanding.¹ For instance many modern scientific discoveries demonstrated from ancient philosophers insights. One of notable example is the idea of atom from Democritus more than 2300 years ago; he laid a foundation for existence of atoms as a he was trying to find out what should be the underlying factors of everything, although it was a laughable idea by then, but today science has proved the existence of atoms and it transformed our understanding in great way,² as illustrated by Corliss:

*Democritus, the so-called laughing philosopher, who flourished about the year 400 BCE and developed systematically the idea that the whole universe is composed in the last analysis of tiny material particles—atoms of different size, shape, and configuration whirling swiftly through the void and interacting according to a definite causal sequence. Thus Democritus was the father of the atomic theory, finally proved true by science some 2300 years later.*³

This show that how philosophers contributed great deal in empirical modern science field. It rather asserts that ideas are powerful thing that modern science should embrace. Philosophy and science has great history together to be considered for the betterment of truth searching. Moreover, Heidegger demonstrated that “philosophy relieves the sciences of their labor by meditating on the presuppositions of the sciences, their basic concepts and propositions.” This is another evidence that philosophy should stand as a foundation to guide a universal realm of all knowledge.⁴ As Lamont put it “Philosophers are always reminding people of the interrelatedness of things, always bringing together what has been artificially torn apart and disunited. In short, in this age of growing specialization it is more than ever the business of the philosopher to specialize in generalization.”⁵

Science

The word Science came from Greek word *scire*, which means to know. Philosophically, to know means to know the essence of things. Human being has innate motivation to understand the external phenomena, for example Aristotle who embraced science affirms that, “All men by nature desire to know.”⁶ Later on science acquires different understandings as it came to be associated with a particular systematic systems as well as its own method of studies. However, various philosophers like Aristotle, Kant, Aquinas and others have divided science into speculative, practical, and higher sciences or first principles. The empirical method as it has mentioned earlier became scientific method. However, it is good to make clear one concept that for Aristotle sciences were not independent discipline but rather a single block with philosophy. Objects took the consideration. Later on the object of metaphysics being as being replaced all kinds of objects, as results metaphysics with its basic terms were implied as core elements to sciences as well. The author of this paper has in mind the same concept when he demonstrates philosophical position in science.⁷

Although this method failed to find the essence of things as it depends on sense data to grasp its knowledge, although most of authoritative knowledge of particular things is acquired through sense data.⁸ Agassi confirms that:

There is little doubt that today research claims prestige for itself because of its potential usefulness. That is to say, all research is claimed to be more-or-less basic. In the classical vein this was unthinkable, the value of science was deemed almost exclusively personal and research was deemed edifying.

¹ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 93.

² Corliss Lamont, “*The Philosophy of Humanism, 8th Edition*,” 42.

³ Corliss Lamont, “*The Philosophy of Humanism, 8th Edition*,” 42.

⁴ Cf. Stuart G. Shanker, eds. *Philosophy of Science, Logic and Mathematics In Twentieth Century*, Vol. Ix, 235.

⁵ Corliss Lamont, “*The Philosophy of Humanism, 8th Edition*,” 7

⁶ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 86.

⁷ Cf. Frederick Crowe, eds. *A Third Collection Papers by Bernard Lonergan-Aquinas Today: Tradition and Innovation*, 41

⁸ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 86.

Obviously, of the many thousands of citizens engaged in research proper, most are engaged in small tasks—which Thomas S.Kuhn has labelled ‘normal’. And, he stresses, normal science is practical.⁹

This shows that empirical method is more embraced in the society than other method as it provides the usefulness of its findings. This trend is what this paper argue against it, because not all truth can survive the empirical test.

The Empirical Scientists

This refers to the scientists, who embraced the empirical facts and sense data as the only fact to be trusted as truth. It is a trend or school rose in 16th century. As it has been argued that the period started by French philosopher Rene Descartes, with his famous phrase “Cogito Ego Sum” means, “I think therefore I am.” He was also famous with his method of universal doubt whereas it suggested a doubt over everything. Later on other philosophers emerged in this school; Descartes opened a new kind of thinking to Spinoza and Leibniz. Later on to Locke, Barkley and Hume.¹⁰

2. RESEARCH METHOD

Method refers to a set of directives that serve to guide a process towards a result. This paper used critical-analytical method. The first method is critical method and the second one is analytic method.

Critical method refers to the method that implies the use of reason to evaluate, reflect and suggest alternative way of decision-making. In this paper critical method has been used to critically think into the details on the relationship between philosophy and science, to evaluate their integration and to recognize the existing gape to bridge. The challenges, opportunities and the meeting points have been presented.

Analytic method refers to the method, which studies the whole phenomena and break down each component in order to have clarity of each fact presented. In this paper analytical method has been used to analyze the data presented from each side, and logically to make them simple and clear to be understood.

Innovative Mind

This refers to the creative and flexible mind that brings new ideas. It is keeping away with traditional thinking. A person with innovative mind has a novel approaches against problem solving skills.¹¹ This kind of mind, involves critical and reflective thinking. As science and technology changes everyday, it is advisable that our thinking should adopt this speed in order to be suit our new skills with new technological innovations, like what the shift from medieval to modern characterized.¹²

Levels of Human Knowledge

Human being is capable to know, and to know is to know the essence of thing. Our knowledge concerning knowledge, philosophers are guided by the question; how do we know? This is an epistemological question that, scrutinize fundamental faculty of human cognition to know. For human being to know is great desire, it is the fact that human being learn every time. Thus why, Lonergan defined knowledge as a self-collective process of learning. It has been argued that consciousness has empirical, intellectual and rational consciousness. In rationality is where we encounter reflective mind. At this stage the mind is doing deep analysis about the collected data. Reflection stage is necessary for scientists because through it, a researcher would find different dimensions about his data, methods, findings as well as conclusion. About three levels of acquiring knowledge Lonergan put it well below:

As human knowing rises on three levels, so also the good that men pursue contains a threefold aspect. There is to our knowing an experiential component constituted by the data of sense and of consciousness. Secondly, there is an intellectual component constituted by insights and consequent definitions, postulates, systems. Thirdly, there is a reflective component constituted by the weighing of evidence and the rational utterance of judgment.

⁹ Cf. Stuart G. Shanker, eds. *Philosophy of Science, Logic and Mathematics In Twentieth Century*, 236.

¹⁰ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 226-255.

¹¹ Cf. Michael Dunlop, Viima.com, 14, 12, 2020.

¹² Cf. Frederick Crowe, eds. *A Third Collection Papers by Bernard Lonergan-Aquinas Today: Tradition and Innovation*, 35.

*But as we experience data, so also we experience the tendencies, the drives, the unrest of our spontaneities. Empirically, then, the good is the object of desire.*¹³

This confirms the argument of this paper that, science needs philosophy for the betterment of its survival because it should not end to empirical stage. Many of us know that sense data or immediate knowledge is not genuine all the time. Furthermore it is a fact that the empirical method embraced by scientists cannot measure everything. However, the three levels of knowledge of Lonergan differs a bit with Spinoza, who asserted that if we want to move from lowest to highest level, we have to pass through imagination, reason and intuition.¹⁴ In this division, he attributed imagination to sense data knowledge, reason to scientific knowledge and intuition which help human being to grasp the whole system of nature.¹⁵

However, it is important that scientists should stop a tendency to consider a whole philosophy as metaphysics. This tendency will bring us back to the debate of methods whereby Kant in *Critique Of Pure Reason*; he divided reality in two parts of *noumena* and phenomena. In this scholarship he argued that *noumena* is that reality which human reason (science) cannot grasp, while phenomenon is that which sense data is found and subjected to empirical investigation.¹⁶ It is under this foundation where as Kant proposed transcendental method as method of philosophy to reach truth. Specifically, Kant defined transcendental as all “knowledge, which is not so much occupied with the objects as with the mode of our cognition of these objects.”¹⁷ Kant considered reason as universal, and everyone should abide to this maxim in thinking and acting. Kant said: “Reason is the faculty which furnishes us with a principle of knowledge a priori.”¹⁸ The universality concept of reason is also supported by Habermas.¹⁹ He confirms that reason is universal because we have the ground to regard it as the origin of the exceptional-less and compulsory norms and affairs that are associated with daily human beings conducts.²⁰ He went further to explain that it cannot be naturalized, because it did not found through any contingent process of natural or social evolution.²¹ At the beginning Kant believed that both science and metaphysics (philosophy) starts with the same datum to reach truth. the same method was applied even by Newton in natural science and brought positive impacts²²

Later on Kant admitted that David Hume’s ideas about knowledge was very right as it was interrupted his dogmatic slumber and gave him new direction.²³ This explanation of Kant came after the argument of Hume that “all our knowledge is delivered from experience and that therefore we cannot have knowledge of any reality beyond our experience.”²⁴ However, Kant did not agree entire argument of Hume, he differs a bit by arguing that “though our knowledge begins with experiences, it does not follow that, it all arise out of experience.”²⁵ This was even against the rationalist who argued “human reason can deriver knowledge about realities beyond experience simply by moving from one idea to another as one does in mathematics.”²⁶ Kant on response to Hume about the impossibility to experience or sense causality, through his idea of a priori, because the a priori implies the knowledge from faculty of rational judgment.²⁷

Kant’s new idea of *critical philosophy*, which together with other things it consisted an analysis of the powers of human reason.²⁸ This refers a critical inquiry of all knowledge which try to re establish their existence out of sense experiences.

Scientists argue that philosophy has no method to reach truth. The strong rejection about this argument comes from analytic philosophers and scientists during the Vienna cycle. According to these philosophers, philosophy has no locus to stand as

¹³ Bernard Lonergan, *Collected Works of Bernard Lonergan*, Frederick E. Crowe and Robert M. Doran, 108.

¹⁴ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 243.

¹⁵ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 243.

¹⁶ J. M. D. Meiklejohn, trans. Immanuel Kant, *The Critique of Pure Reason*, 75.

¹⁷ J. M. D. Meiklejohn, trans. Immanuel Kant, *The Critique of Pure Reason*, 75-76.

¹⁸ J. M. D. Meiklejohn, trans. Immanuel Kant, *The Critique of Pure Reason*, 75.

¹⁹ Cf. Barbara Fultner, eds. *Jurgen Habermas Key Concept*, 28.

²⁰ Cf. Barbara Fultner, eds. *Jurgen Habermas Key Concept*, 28.

²¹ Cf. Barbara Fultner, eds. *Jurgen Habermas Key Concept*, 28.

²² Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 292.

²³ Cf. Barbara Fultner, eds. *Jurgen Habermas Key Concept*, 292.

²⁴ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 292.

²⁵ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 292.

²⁶ Samuel Stumpf, *Socrates to Sartre, A History of Philosophy*, 292.

²⁷ Samuel Stumpf, *Socrates to Sartre, A History of Philosophy*, 293.

²⁸ Samuel Stumpf, *Socrates to Sartre, A History of Philosophy*, 293.

the guardian of science but rather to interpret and to analyze words for better understanding. It is under this line of thinking in which philosophy loses the power over other fields of knowledge. As it has been argued by Habermas in *Philosophy as Stand In and Interpreter*, he illustrates that “the need to abandon philosophy’s pretensions to serve in a dual role as a final judge of what the other sciences may legitimately know, and how the sciences are to be related to all other sphere of human culture, does not imply that philosophy should also abandon its status as the guardian of rationality.”²⁹

Moreover, it is necessary in order to mix up things to understand the differences between truths, as it was distinguished by Leibniz, there is truths of reason as well as truth of facts. Leibniz explained that the truth of reason deals with logic, while that of facts deals with science.³⁰ This paper show that these two kind of truths should interwoven and find a point to meet, so that the truth of science that comes from empirical investigation, should start with reason and logical investigation, because the empirical method can not measure everything like things with nature of internal values.

Despite the main argument of this paper that the empirical observation should not be the only method in science, especially if we really need to stimulate scientific and innovative mind, the some philosophers like Bacon, Hobbes and others have argued in favor of empirical observation that knowledge should be built upon observation.³¹ This point was strongly supported by the Empiricists philosophers like David Humes, Barkley and Locke who believed on common sense and that all of our ideas come from experiences.³² This kind of understanding led Hume to deny whether we have any idea of the self.³³

Furthermore, the empiricists developed logical positivism schools under some members like Shlick, Carnap, and others; that where as by logical, it implied that they were interested in language and meaning. In this group even Descartes and Mill noticed to find the extent of knowledge.³⁴ As it has illustrated below:

The new approach may be illustrated by the problem of ‘other minds’. How can I know that other people really have thoughts and feelings, when I can only observe their bodily movements and the sounds they utter? In the new philosophy this problem of knowledge is transformed into one about meaning. What does it mean to say that another person has such and such a feeling? According to the new philosophy, it can mean no more than what is observable. Any statement about feelings as distinct from what is observable will be meaningless. ‘It is not false, be it noted, but meaningless: we have no idea what it is supposed to signify.’³⁵

This contends that the empiricists embraced only the empirical statements verifiable only by observation. Also they accepted logic and mathematics whereas their truth is known a priori, that implies the fact that they were not bringing new knowledge than the analysis of what was already known.

However, unlike the empiricists, Heidegger in “What Is Metaphysics,” he argued: “Philosophy is one of the few autonomous creative possibilities, and occasional necessities, of human-historical *Dasein*. The current misinterpretations of philosophy, which all have something to them despite their misunderstandings, are innumerable.”³⁶ Heidegger continue to argue that “This readily gives the impression that philosophy can and must provide a foundation for the current and future historical *Dasein* of a people in every age, a foundation for building culture.”³⁷ Furthermore, Heidegger confirms that Isaac Newton, one of greatest scientists, asserted that the principle of motion or inertia, the concept of nature as perceived by Plato, Aristotle, Galileo and others, laid strong and universal understanding of modern sciences.³⁸ As it has demonstrated by Heidegger, Lwiwa et al., argued that the agent or *Dasein* should use rationality in order to have reflective and critical mind

²⁹ Cf. Barbara Fultner, eds. *Jurgen Habermas Key Concept*, 28.

³⁰ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 251.

³¹ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 255.

³² Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 271.

³³ Samuel Stumpf, *Socrates to Sartre- A History of Philosophy*, 275.

³⁴ Cf. Stuart G. Shanker, eds. *Philosophy of Science, Logic and Mathematics In Twentieth Century*, Vol. Ix, 195.

³⁵ Cf. Stuart G. Shanker, eds. *Philosophy of Science, Logic and Mathematics In Twentieth Century*, Vol. Ix, 195-196.

³⁶ Martine Heidegger, “Introduction To Metaphysics,” 7-8.

³⁷ Martin Heidegger, “*Introduction to Metaphysics*,” 11.

³⁸ Martine Heidegger, *Modern Science, Metaphysics and Mathematics*, 255-256.

in order to free his consciousness for his emancipation.³⁹ This affirms the role of philosophy to provide strong foundation to human being.

The Nexus of Philosophy and Science

It is the fact that, good scientist should be good philosopher, the vice versa principle is neutral here. As it has been argued by many scholars that all knowledge at least comes from the senses, as Kant asserted, "In whatsoever means, our knowledge may relate to objects...because in no other way can an object be given to us. The effect of an object upon the faculty of representation, so far as we are affected by the said object."⁴⁰ It follows that a scientist cannot escape this fact. This is the first commonality, which provides ground for the starting point of getting knowledge. So common sense becomes common to philosophers as well as to scientists. As Lonergan wrote:

As there is nothing to prevent a scientist from being a man of common sense, so there is nothing to prevent him from being a philosopher. Indeed, the scientist's dedication to truth and his habituation to the intellectual pattern of experience are more than a propaedeutic to philosophy; and if every mind by its inner unity demands the integration of all it knows, the mind of the scientist will be impelled all the more forcibly to proceed to that integration along a course that is at once economical and effective.⁴¹

This shows that, there is no knowledge outside the senses, and that both scientists and philosophers have common agreement in to this. The problem comes on the methods to reach that truth.

It is interesting that, to rely on common sense alone could lead the subject to the false observation, as sense knowledge is not true all the time. It can be affected by many factors, and so there is a need to go beyond by using reason and other tools that also even those tools need reason for interpretation. Lonergan illustrated that:

Unfortunately, what can be observed is merely a datum; significance accrues to data only through the occurrence of insights; correct insights can be reached only at the term of a prolonged investigation that ultimately reaches the point where no further relevant questions arise; and without the combination of data and correct insights that together form a virtually unconditioned, there are no facts.⁴²

This confirms the facts that empirical science is still need some critical reflection to think about what they have observed. This implies the role of philosopher to philosophize the presented data and nature. Furthermore, Lonergan highlights that the Aristotelian science was to be causal, necessary, and true. Unlike the modern science, which is still thinking on causes and not on end, agent, matter, forms. It is only thinks on correlations or concomitance.⁴³

However, the tendency of empirical science to investigate a particular sample of facts and present it as universal reality is disgusting since some few data might vary with that from other places or conditions. It follows that science cannot establish a universal principle of fact as its findings can be affected by time and space.

3. CONCLUSION

The aim of this paper was to present the dialogue on how empirical scientists and other knowledge should recognize the status of philosophy, because as we have seen philosophy is a mother and queen of all sciences. But also I have demonstrated where and how both philosophy and science are doing the same work of searching for truth, but only they differ on methodology. The paper also has criticized the weaknesses of empirical method of science that it needs reason on its evaluation as well as it cannot measure every reality. It is the task of philosophy as demonstrated by to bridge the age long gape between thinkers and doers as well as theory and practices.

³⁹ Apiov Simon Lwiwa, George Ndemo, Dynesius Nyangau, 2023, "The Synthesis of Nyerere's "Ujamaaism" and Habermas Critical Social Theory", East African Journal of Arts and Social Sciences, 6(1), 83.

⁴⁰ J. M. D. Meiklejohn, trans. *Immanuel Kant, The Critique of Pure Reason*, 82.

⁴¹ Fredrich Crowean and Robert Doran, eds. *Collected Works of Bernard Lonergan-Insight: A Study Of Human Understanding*, 448-449.

⁴² Fredrich Crowean and Robert Doran, eds. *Collected Works of Bernard Lonergan-Insight: A Study Of Human Understanding*, 437.

⁴³ Cf. Frederick E. Crowe, eds. *A Third Collection Papers by Bernard Lonergan*, 42.

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