The Role of Aristotelians, Positivists, Hegelians, and Relativists in Shaping the Ideas Knowledge & Knowledge Management

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ABSTRACT

The basic aim of this very paper is to justify that today's modern management is shaped by the viewpoints of positivists and relativists. Positivists and relativists argued from a different perspective. While the former claims that methodology is inevitable to have genuine and justifiable knowledge, the latter argued that methodology is not a necessity for knowledge creation. This paper claims that today's knowledge management is developed by inculcating the views of positivists and relativists. To justify this very claim, the Hegelians' thesis-antithesis-synthesis perspectives were taken into consideration. In the first place, the basic themes of the two perspectives were presented. Secondly, synthesized ideas were produced. Thirdly, their contribution to modern knowledge management was investigated. The synthesized evidences indicated that Aristotelian, Baconian inductivism, positivism, and relativism contributed a lot to today's knowledge and knowledge management. The idea of hypothesis testing is borrowed from Baconian inductivism. They believe in logically, mathematically, and statistically justified knowledge was taken from the positivists' viewpoints. Relativists were also impacted knowledge management scholars in that organizational knowledge can be created anomalies in particular institution and/or nation.

Keywords: Aristotelians; Positivism; Relativism; Methodology; and Knowledge Management

1. INTRODUCTION

Whenever we talk about knowledge management, we are claiming that that there is knowledge resource that needs special protection from unauthorized access (Huei-Tse Hou, 2012). The historical evolution of knowledge and its rationalities goes back to human civilization particularly to Egyptians, Babylonians, Persians, Grecians, and Greco-Romans (Bernstein, 1985). Though human beings are able to develop different knowledge in the form of assumptions, speculations, theories, and hypotheses based on their day-to-day activities, there is no this much 'objective criteria' and 'methodology' to justify its rationality (Francis Bacon, 1620). Different thinkers labor much to rationalize these different thinking patterns through different approaches of reasoning and methodologies (Cohen, Louis; Maldonado, Antonio, 2007). Despite these efforts, the very concepts of knowledge and its rationality remain a source of controversies (Gartell, David, and Gartell, John (1996). Based on their knowledge background, different nations developed different political and economic paradigms (Ade-Ali & Funmilayo A., 2015).

Accordingly, this paper is intended to critically discuss, and debates the contributions of Aristotelian, positivist, and relativists thinkers in shaping the view toward knowledge and knowledge management. To build foundational evidences for my argument, I critically discussed different perspectives of philosophies of science such as Aristotelians, Baconian inductivism, positivism, and falsification of Karl popper, structure of scientific revelation, against the method of Feyerabend, proof and refutation of Lakatos, and beyond subjectivism and Objectivism of Richard Bernstein. Then, the impacts of their insights on today's knowledge and knowledge management were synthesized to be fixed.

2. DISCUSSION, DEBATE AND CRITIQUE

2.1. Knowledge Management And Aristotelians

Aristotelianism is a metaphysical institution stimulated by the work of Aristotle (Schaffer, 2010). This perspective is characterized, by its deductive logic, and analytical inductive approaches

(Rovelli, 2015). They are distinguished in creating knowledge in the areas of teleology, physics, biology, metaphysics, logic, ethics, aesthetics, poetry, theatre, music, rhetoric, psychology, linguistics, economics, politics, and government (Drabkin, 1938). Contemporary scholars also agree that the history of science goes back to the time of Aristotelians (R D. Biggs, 2005 & David, 2006). Aristotelians divided the knowledge virtue into virtues of thought that could be mapped to knowledge (Derek & Carl, 2006). It is also the source of today's concepts like mental mapping (Chris, 2009). These are Epistémé [Factual or scientific knowledge], Téchné [Skills-based technical and action-oriented knowledge], Phrónésis [Experiential self-knowledge or practical wisdom based on experience], Noûs [Intuition] and Sophía [Theoretical knowledge of universal truths or first principles]. David argues that Aristotle's knowledge virtues can be mapped to the knowledge management stages congruent to Aristotelian has thought virtue. This can present in the following tabular diagram:

No	Terms	Acquisition [creation, discovery, gathering ,validation]	organization[modeling, classification, calibration, ingression]	Distribution [sharing, reuse, maintenance, Dissemination]
1)	Epistémé	By gathering facts and relationships known about the organizational knowledge domain and its human participants	Knowledge bases, databases, data warehouses, documents, and diagrams	Enabled and enhanced by information technologies & computer-mediated communications
2)	Téchné	Through interaction, interviews, and discussions with practitioners who have exhibited acquired téchné.	Extensive cross-referencing of skills and activities across the organization	Potentially replicated and implemented through information technologies, artificial intelligence, and decision-support systems.
3)	Phrónésis	By recording lessons learned and case studies in the ongoing organizational experience	Case books, project retrospectives, and narratives	Stored, replicated, and delivered through rich media-based computer technologies

| 4) | Noûs | By determining paths to those people who have exhibited relevant noûs within the organization By increasing support for phrónésis and téchné | Social networks guided by meta-knowledge describing participants and their capabilities | The network through which noûs is uncovered is enabled by computer-mediated communications, forums, and online communities. |
| 5) | Sophía | Synthesizing knowledge through thesis-anti-thesis- approach | Embedding knowledge | All about knowledge creation and distribution |

Table 1: Aristotelian knowledge virtue vs. Knowledge management

As seen from the table, Aristotelians' primary objective was the creation of genuine knowledge in all dimensions. Then, they focus on enhancing the quality of knowledge through their thesis-antithesis-synthesis method of making knowledge. To distribute knowledge, they were committed to establish schools and teach people. In such a way, they served as a strong foundational base for the development of contemporary knowledge management diminutions such as knowledge creation, storage, protection, sharing/distribution, application, and disposal.

2.2. Positivism And Knowledge Management

Positivists in their part advocated that empirical knowledge is the exclusive source of social progress and development (Cohen & Maldonado, 2007). Particularly, scholars such as Ludwig Wittgenstein, Bertrand Russell, and G. E. Moore are remembered for promoting the very concept of positivism (Allen, Barry, 2007). Positivists reveal themselves in promoting the 'rejection of metaphysical doctrines' for their 'meaninglessness' and the 'acceptance of empiricism' as a matter of logical necessity (Werkmeister, & William, 1937). To solve problems of Platonian metaphysics, positivists suggest the power of mathematic, statistics, probability, and logic as a tool of maximizing the rationality of science (Allen, 2007). They also argue that it is even possible to expose the 'abstract concept in the language of human nature to the verification of mathematics, statistics, probability, and logic (Thomas, 1976). Generally, positivists' impact on the development of contemporary knowledge management can be seen as follows:

2.2.1. Baconian Inductivesim, Vs. Knowledge Management

Francis Bacon (1620) was the first scholar who cleaned that knowledge is power. For him, human beings are capable to achieve the maturity level that helps them dominate the whole nature from time to time by observing the world around them (ibid). He argued for the vitality of inductive reasoning to create, distribute and apply genuine knowledge (ibid). For the same purpose, Bacon introduced inductivism as the best way reasoning and learning approach and is still called Baconian Inductivism (Ferda, 2013).

Bacon claimed that knowledge is acquired not only by arguing [just like idealist thinkers claim], but by developing hypotheses, designing theoretical foundations, and producing as many evidences as possible to justify the hypotheses (Radman, 1995). He called this the new Organon borrowing the word from Aristotelians. While the old Organon is concerned with the deductive argument of the idealist philosophers of the Greece world, the Novum Organon deals with the inductive argument of materialist philosophers like Bacon (John, 2003). Baconians' basic argument is that knowledge creation is possible through adopting methodologies, methods, and techniques (Irving, 2006). Different hypotheses, intuitions, and metaphysics should be critically examined before they are being considered as knowledge (James, 2012). Bacon opened a new way to experimental and observational research in which data are being collected, analyzed, interpreted and then some sorts of facts/Axioms are arrived at inductively which is forward reasoning /inductive paradigm (Avineri, & Shlomo, 1962). He also advocates mind idols (mind viruses) by which people are being confused (Bernstein, 1985). These mind idols are either artificial or innate in general (Davidson, Donald, 1974). He played an enormous role in weighing the philosophical values of the Aristotelian deductive approach in acquiring knowledge (Greenland, 1962).

In spite of the fact that I am appreciative to this thinker for establishing and introducing 'the Baconian Method' at the very time when the world was swallowed by the darkness of assumptions, speculations, imaginations, intuitions and different metaphysical viewpoint, I still have a claim that he couldn't refute the concept of deduction. He rejected it without any good cause. The other question I want to pose is that whether induction reasoning itself is something critical or not. For David Hume, inductive reasoning is not 'reasoning' at all; but rather it is a mere habit or a psychological tendency to form beliefs about what has not yet been observed

based on what has already been observed (Hobart, 1934). My argument, here, is that we cannot solve the problem of induction by induction itself.
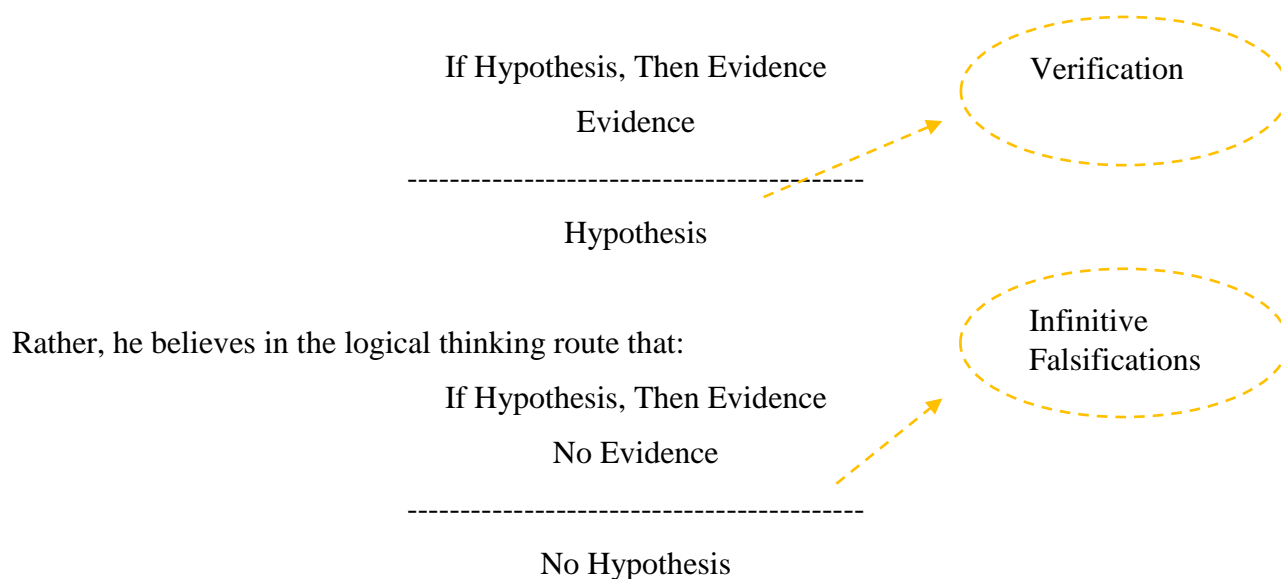
To sum up, Baconian inductive method contributed much to the development of knowledge creation methodologies, methods, and experiments regardless of its problems.

2.2.2. Karl Popper's Falsification and Knowledge Management

Based on the Bconian's inductivism problems, Popper (1935) suggested the idea falsification as a remedy for rational knowledge and then knowledge management. He is also known for his claim for producing bold hypothesis, critical rationalization, falsification, and scientific progress (Broad, 1979). Concerning bold hypotheses, his argument was that scientists and philosophers should able to question those predetermined and experimentally proven theories and ideologies about knowledge creation (Popper, 1978). To what extent they are, 'science or non-science' is being known after they survive these different critical scientific examinations (Rudge, 2005).

He advocated the very concepts of 'falsification' that is all about synthesizing evidences as many as possible to falsify the predetermined theories, assumptions, and speculations by raising many 'counterexamples' as much as one can do (Kaye, David H., 2005). Moreover, he contends argued against Baconian's inductivism in that it labors to confirm axioms rather than falsifying them (Popper, 1935).

According to Karl popper, science and scientists must not believe that theories are true unless critically justified by the logical principle of justification (Forster, 1992). For this scholar, scientific knowledge developed and progress by first producing a number of hypotheses as much as possible and then by refuting and falsifying them by listing all possible examples and counter examples. He does not believe in the Baconian way of reasoning that:

If Hypothesis, Then Evidence

Evidence

Hypothesis

Verification

Rather, he believes in the logical thinking route that:

If Hypothesis, Then Evidence

No Evidence

No Hypothesis

Infinitive Falsifications

His general claim was that falsification is an alternative scientific method to 'Baconians' inductivism' and it is a way in which we can improve the naïve inductivism-thinking pattern while maintaining the core values and intuitions behind it. For him, science can 'perish' if failed to be falsified from time to time and 'survive' if continuously falsified and this principle exactly matches 'Darwin's theory of survival of the fittest'.

In the modern knowledge management era also, Karl Popper's falsification is practiced as a means of knowledge creation and utilization, particularly in law and social science areas.

2.2.3. Lkatos's Proof & Disprove Vs. Knowledge Management

Imre Lakatos (1998) was the other positivist scholar. He advocated for a given belief to be considered as knowledge, it should be justified by the proving/disproving power of mathematics. He suggested the very concepts of proofs and refutations as a manse of creating and utilizing genuine knowledge (Lakatos, 1978). Different hypotheses and theories should be exposed to different proofs and disprove through different forms of 'trial-and-error' methods and techniques to be considered as knowledge (Lakatos, & Feyerabend, 1999).

2.3. Hegelians And Knowledge Management

Today's contemporary knowledge management has received its foundational from the Hegelian dialectical idealism and Marxian's' dialectical materialism (McKeon, Richard, 1954). Despite

their way of argument, they contributed discourses, dialogues, and debate as one method of knowledge creation, protection, and application (Postan, Michael M., 1962). For Hegelians, human mind is innate and expands from consciousness [certainty at the level of sense experience], to absolute knowledge [wisdom that a respective individual achieves/ transcends] (Hegel, 1807). On the contrary, Marx argues that a certain society and mind is the production of some respective mastermind (Marx, 1867). For these scholars, the knowledge development of a given society and mind is dependent upon the martial need called economy.
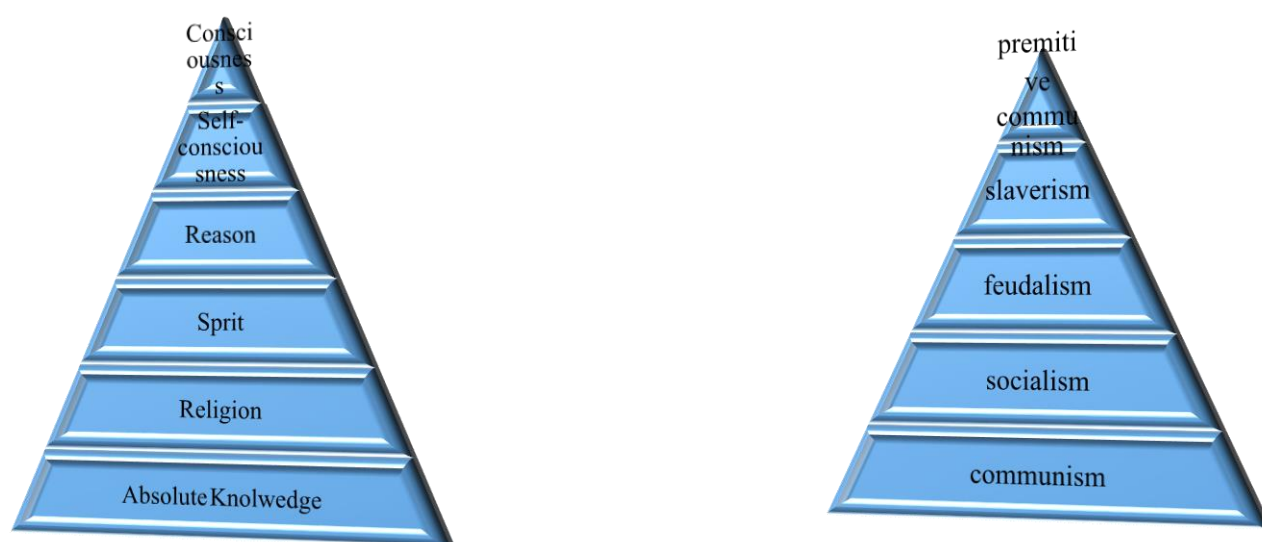
Sources

G. W. F. Hegel (1807, pp. 60-231)   David McLellan, 1977, pp. 171-205

Figure 1: impacts of Hegelians and Marxian's on today's knowledge management

Today, western liberalism-based knowledge creation, protection, distribution, and application reflect the viewpoints of the Hegelian dialectic method. On the other hand, the eastern socialist natation knowledge management reflects to what extent their dialectical materialism is their foundational base.

2.4.   Relativism and Knowledge Management

Relativists suggested that economic prosperity, political stability, social consciousness, and civilization are determined by the synergetic effect of philosophical, empirical and artistic

knowledge (Graff, 1973). The first relativist thinker I took into consideration is Thomas Kuhn's position. He is well known for his theory of the structure of the scientific revolution (Kuhn, 1965)**.** His argument is that paradigm shift [knowledge creation] of science is both 'possible & logical' and is realized through changing 'normal science activities' (the received view) within a prevailing framework (paradigm) to the next stage of scientific progress (Kuhn, 1970). It is this revolution, that played a vital role in the development and civilization of human beings from Stone Age to this very automation era (Kuhn, 2000). For this scholar, new knowledge is invented from time to time and the new idea is always better than the old idea quality-wise (Robert &Lorraine, 2016). He also argued for the importance of anomaly knowledge discovery (Kuhn, 1970). His claim was that scientific discovery is not only research-based (normal science). Scientists and even ordinary man can uncover new science from the threats and/or opportunities around them (Kuhn, 1970).

The other relativist who argued against method and methodology was Paul Feyerabend (1975). He claimed that methods and mythologies solely are not the sole ways of creating, protecting and applying genuine knowledge (ibid). For him, methodological monism does not work. He argued that science is an anarchic enterprise, not a nomic (customary) one (Feyerabend, Paul (1970). He believed that the methods and methodologies endangered new ideas, paradigms and values. He is remembered by his very claim that science is an anarchic enterprise [epistemological anarchism]. Epistemological anarchism holds that there is no one best methodological rule governing the progress of knowledge. Knowledge creation could not be fixed to certain universal rules [methods and methodologies]. I such a way, he denounced, Popper's falsification, Lakatos's proof and refutation, and Beconian's inductivism theories. For the advancement of new and genuine knowledge, he suggested methodological pluralism (Paul, Tomas, Hattiangadi, 1977). Feyerabend also argued that the success of science is not solely because of the adoption of methods and methodologies; but because of its flexibility to receive ideas from non-science sources (McKenna, 1992).

For this thinker, genuine knowledge is not only that is produced in the science world. All traditional and implicit ideas are also there as a source of knowledge. Modern knowledge management scholars also claim that holistic knowledge is both explicit and implicit knowledge

(Mirghani, Michael and Arthur, 2013). Just as Feyerabend argues for the Search of the Original Tree of Knowledge, Nonaka, von, & Voelpel, 2006), suggested societies' tradition & values system as the epistemological sources of knowledge

3. THE RECEIVED VIEWS FROM POSITIVISTS & RELATIVISTS BY THE KNOWLEDGE MANAGEMENT SCHOLARS

Today, the idea of knowledge management is established as a disciple. it received tremendous paradigms, models, values, and principles from the classical schools of thought such as Baconian intuitivism, Karl Popper's falsification, Aristotelians, Hegelian dialectical materialism, Marxian's' dialectical materialism, positivism, and relativism.

Generally, contemporary knowledge management practices such as knowledge creation, storage, protection, sharing/distribution, application and disposal are directly and/or indirectly associated with the above-mentioned philosophical dimensions. In a synthesized way, the association between contemporary knowledge management and the classical schools of thoughts are summarized as follows:

No	Ancient/classical school of thoughts	Their viewpoints	Contribution to the development of knowledge management	References
1.	Socrates	Socratic Method / Socratic Circles/ Socratic Seminar/Dialogue	Contributes to today's discussion, debate, brainstorming as a source of knowledge creation	Michael Frede (1992) & Gose Michael (2009)
2.	Aristotelians	his elements of knowledge virtue such as Epistémé, Téchné, Phrónésis, Noûs, and Sophía	In all these different knowledge virtues, they discussed how knowledge is created, stored, protected, shared and utilized	Rovelli, Carlo (2015), Schaffer, Jonathan (2010), David G. Schwartz (2006).
3.	Baconian inductivism	Advocated for the need to develop and experimentally test hypothesis	Is still using as a source of having genuine knowledge	Bacon (1620)
4.	Hegelians	Thesis-antithesis-synthesis	Still serving as a means of arriving at synthesized genuine knowledge	G. W. F. Hegel (1807)
5.	Karl Popper	Theory of falsification	Still used by researchers when they want to falsify their null hypothesis by synthesizing as many evidence as they can. If they fail to falsify, then they accept the null hypothesis and vice versa	Karl popper (1935)
6.	Imre Lakatos	Mathematical proof and refutation	Is still used in natural and social science as a means of knowledge development	Imre Lakatos (1998)
7.	Feyerabend	Methodological pluralism	Today's authors of knowledge and knowledge management suggest the same way	Feyerabend (1975)
8.	Thomas Kuhn	Structure of scientific revolution	People create knowledge from the threats and /or opportunities around them regardless of methods and methodologies	Kuhn (1965)
9.	positivists	Claims for the power of logic and mathematics as a source of genuine knowledge	Scholars in social and natural science are still using this approach as a means of justifying their presumptions	Cohen & Maldonado (2007), Allen (2007), and Werkmeister & William, (1937)

Table 2: Summaries of philosophical viewpoint and their impact on KM

4. CONCLUSION

Contemporary scholars on knowledge and knowledge management are not committed to see the philosophical aspects of knowledge management. As indicated in the discussion section above, the genesis of knowledge management is one way or another related to ancient, classical and even modern philosophies. Moreover, knowledge management as a discipline stands on the theoretical foundations of Aristotelians, Hegelians, Baconians, positivists, and relativists. it shared different paradigms, models, and values on how to know; how to create, distribute & apply knowledge; knowledge building, knowledge engineering, data mining, mental mappings, knowledge tree, and knowledge value chain. Generally, each and every gene of knowledge management is similar to Aristotelians, positivists and relativists genes.

5. PRACTICAL IMPLICATIONS

This very paper will serve as a signal in awakening scholars, and managers/leaders to think the very ideas of knowledge and knowledge management philosophically and/ or epistemologically. Unless contemporary knowledge management scholars put due attention in sharing knowledge from different knowledge dimensions and schools of thought, they cannot improve the existing knowledge management dimensions, models, values, principles, policies and systems to the expected level.

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