



Basic Ideas of Rationalism and Empiricism and Some Epistemological Implications

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ARTICLE INFO

Article History:

Submitted: 26 July 2021

Revised: 16 August 2021

Accepted: 16 September 2021

Keywords: Rationalism,
Empiricism,
Epistemological
Implication,
Epistemic Habit
and Virtue.

Kata-kata Kunci:

Rasionalisme,
Empirisme,
Implikasi
Epistemologis,
Kebiasan dan
Keutamaan
epistemologis

DOI:

<https://doi.org/10.53396/media.v3i2.35>

ABSTRACT:

This article analyzes the main ideas and some epistemological implications of the two important epistemology schools of the Modern Era – Rationalism and Empiricism. This study finds that both rationalism and empiricism contribute some ideas to epistemology and offer the possibility for some epistemic habits or virtues. Epistemological contributions involve the structure and the process of formation of knowledge, status of the capacity of cognitive faculties, the metaphysical foundation of knowledge, and two types of reasoning which are logical knowledge and probabilistic knowledge. Consequently, these ideas lead to some epistemological habits or virtues; namely, the spirit of keeping the experiential interconnectedness with things as the starting points and warrant of the everyday effort of understanding, to understand the nature of the workings of sensible faculties as the foundation to think of the nature of our knowledge, and keeping the habit of doing abstraction, and reasoning for everyday need of understanding.

ABSTRAK:

Artikel ini menganalisis beberapa implikasi epistemologis dari dua aliran epistemologi penting dalam zaman Modern – Rasionalisme dan Empirisme. Studi ini menemukan bahwa keduanya memberikan beberapa kontribusi konseptual terhadap Epistemologi dan menawarkan beberapa kemungkinan habitus atau keutamaan epistemik. Sumbangan-sumbangan tersebut meliputi baik struktur dan proses pembentukan pengetahuan, status kapasitas dari fakultas-fakultas kognitif, dasar metafisik pengetahuan, dan dua tipe penalaran, yakni: penalaran atau pengetahuan logis dan pengetahuan yang bersifat mungkin. Pada akhirnya, kontribusi-kontribusi ini lalu berimplikasi pada beberapa *habitus* atau *keutamaan* epistemologis yang bisa dipikirkan dalam rangka hidup sehari-hari, seperti: spirit untuk selalu memelihara keterjalinan dengan segala sesuatu yang dialami sebagai titik berangkat dan jaminan untuk pemahaman dan pengetahuan, memahami kodrat kerja dari kapasitas-kapasitas kognitif sebagai dasar untuk memahami kodrat pengetahuan yang kita bangun, mengoptimalkan peranan epistemik dari daya kerja memori, kepercayaan dan imajinasi, dan tetap berabstraksi dan membangun penalaran demi kebutuhan untuk pemahaman dan pengetahuan.

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Introduction

Rationalism and empiricism are the two major epistemology schools during the modern period. They are significant in developing and shaping the course of modern and contemporary epistemology as they are considered to be the beginning of a new era in philosophical approaches. The emphasis or starting point is placed on analysis to be the foundation of philosophizing and basis of finding fundamental principles of knowledge (epistemology).¹ These new philosophical approaches are reactions to the tendencies of science and philosophy in the previous era that are deeply influenced by Christianity.² A number of these scientists and philosophers are falling out of this religious influences and interventions, gradually losing hold of the strong grounds of their beliefs and eventually adhering and giving more importance to the authority of reason.

Their first problem concerns the status of knowledge which means ascertaining the foundation and the source of knowledge – the status and what warrants certainty and truth of knowledge. This topic then, stands even as the basis and the starting point of the entire discourse of modern and contemporary philosophy. In general, Rene Descartes and Francis Bacon were the leading thinkers who began to establish the new project.³ As already mentioned, the fundamental characteristics of the position of these schools is the insistence that “human reason plays the highest authority in the pursuit of knowledge.”⁴ The era’s spirit is to start giving the emphasis on the capability of rationality.

This paper focuses on the main arguments of Rationalism and Empiricism. It seeks to explicate the fundamental elements which these two schools contribute as constitutive of the contemporary discourse in epistemology. It analyzes further the possibility of some epistemological virtues that are implied in the most dominant schools of theory of knowledge.

Methods of Research

This study uses the method of critical analysis in discussing and investigating the points above-mentioned. The epistemological implications which refer to the conceptual contributions to the contemporary discourses in epistemology and how it inescapably suggests some epistemic habits or virtues shall be analyzed.

¹ William H. Brenner, *Elements of Modern Philosophy: Descartes through Kant* (New Jersey: Prentice Hall, Inc., A Division of Simon & Schuster, 1989), 1; Frederick Copleston, *A History of Philosophy: Modern Philosophy; Descartes to Leibniz*, Vol. 4 (New York: Image Books, A Division of Doubleday & Company, Inc., 1963), 27.

² Copleston, 21–27; Frank Thilly, *A History of Philosophy* (New Delhi: Manish Sabharwal SBW Publishers, 1993), 250–51.

³ Copleston, *A History of Philosophy*, 13.

⁴ Thilly, *A History of Philosophy*, 18.

Basic Arguments of Rationalism and Empiricism

The terms 'empiricism' and 'rationalism' refer to the approaches in philosophy concerning the status of knowledge in Post-Middle Ages. These approaches look particularly into the issues on the problem of foundation, source or origin, starting point and/or the nature of knowledge.⁵ The question involving these themes are aimed to assure the certainty, validity and the truthfulness of the claims of knowledge.⁶ It questions the warranty, legitimacy and verifiability of knowledge. The debate between these schools of thought became the basis and the major influence of the entire history of modern and contemporary discourses in epistemology up to date. For some thinkers, Immanuel Kant's transcendental epistemology in the Enlightenment era had been generally considered as the synthesis of these clashing ideas which in effect ending the debate. But, due to the development of dissatisfaction in Kant's transcendental epistemology and the relentless research regarding these two schools, the manifestation or metamorphose of these two classical debates remains. Empiricism became apparent in the more radical philosophy schools like Radical Empiricism, Logical Positivism, Analytical Philosophy, Logical Atomism, Pragmatism, etc., while Rationalism is seen in the philosophy schools like Idealism, and Critical Rationalism. Although, the birth of these schools brings some novelty and additional concepts towards two classical schools, the main ideas or focus of these two classical schools remain.

Rationalism stands with the claim that reason is the foundation and the source of knowledge. Its history can be traced back to Plato in classical Greek era and was developed deeply during the modern era by philosophers like Descartes, Baruch Spinoza, Leibniz, Christian Wolff, and in some sense Immanuel Kant. Empiricism, on the other hand, puts sensible experience as the foundation for the whole process of the constitution of knowledge. Its champions include Aristotle in classical Greek, Francis Bacon, Thomas Hobbes, John Locke, George Berkeley and David Hume in the Modern Era.

Peter Markie explains on empiricism and rationalism that,

The dispute between rationalism and empiricism concerns the extent to which we are dependent upon sense experience in our effort to gain knowledge. Rationalists claim that there are significant ways in which our concepts and knowledge are gained independently of sense experience. Empiricists claim that sense experience is the ultimate source of all our concepts and knowledge. Rationalists generally develop their view in two ways. First, they argue that there are cases where the content of our concepts or knowledge outstrips the information that sense experience can provide. Second, they construct accounts of how reason in some form or other provides that additional information about the world. Different forms of rationalism are distinguished by different conceptions of reason and its role as a source of knowledge, by different descriptions of the alternatives to which reason is opposed, by different accounts of the nature of knowledge, and by

⁵ Thilly, 252.

⁶ Thilly, 254.

different choices of the subject matter, for example, ethics, physics, mathematics, metaphysics, relative to which reason is viewed as the major source of knowledge.⁷

The center of the debate between Rationalism and Empiricism is the status and the role of sense experience in the process of knowing. It focuses on the question concerning the scope of sensible experience' influence in the formation of knowledge or the level of participation of sensible perception in the process of cognition.

Rationalism seems to not entirely reject the idea that sense experience is the source of knowledge. To some extent, the rationalist admits that experience is an integral part of knowledge. However, it also poses that in some cases, some truths and knowledge can be independently and autonomously produced by reason without depending on sense experience. This argument can be inferred in understanding mathematical concepts, logic, and analytical ideas. Thus, the idea of rationalism itself is not singular but is understood to be based on several types or categories of cases. In these cases, the process of acquiring knowledge does not need to rely categorically on sense experience as formerly said.

Frank Thilly explains further,

We may mean by rationalism the view that genuine knowledge consists of universal and necessary judgements, that the goal of thought is a *system* of truths in which the different propositions are logically related to one another. This is the mathematical notion of knowledge which is accepted by nearly all the new thinkers as the ideals; whether they believe in the possibility of realizing it or not, they consider only such knowledge genuine as conforms to the mathematical model. [.....] Genuine knowledge cannot come from sense-perception or experience, but must have its foundation in thought or reason.⁸

For Tilly, the basic notion of rationalism points to the system or the school of thought that underlines the logical relation, and universal and necessary judgements among the various types of propositions which builds a system of truth or genuine knowledge.⁹ As previously mentioned, mathematical system is one of the instances of that idea. The rationalists seem to believe that there is a "rational structure" in reality where its elements can be understood by applying or using the approaches in mathematical or logical reasoning. They establish a different position to the empiricists regarding the original status of reason. The empiricists portray the original status of reason as just like a blank white paper and the forming of the empirical object's picture in reason is merely enabled by the vivacity, the powerfulness and constancy of the operation of sensible experience. The rationalists, claim that the interactive contact between mathematical reasoning and the structure of reason. That is, there are ideas that can logically or reasonably be accepted or understood based on pure logical and

⁷ Peter Markie and M. Folescu, "Rationalism vs. Empiricism", *The Stanford Encyclopedia of Philosophy* (Fall 2021 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/fall2021/entries/rationalism-empiricism/>>..

⁸ Thilly, *A History of Philosophy*, 253.

⁹ Thilly, 253.

mathematical reasoning, without need of an empirical object as the foundation or supporting sources.

As to the epistemological fundamentality of reason, even though it seems impossible in the real life, Baruch Spinoza and Willhelm Leibniz claim that knowledge in general is the product of reason alone. Other thinkers from the same school also claim that knowledge is obtained by the act of intuition and deductive reasoning, in which intuition and deduction principle are integral parts of the activities of reason. For them, there are ideas that are naturally and logically innate from which all truths of knowledge originate. The finding of these ideas as innate ideas is purely by logical reasoning. Because of that, they consider that reason have the most reliable, superior and higher status compared to sense experience as foundation or origin of knowledge.

Thus, it can be said that the centrality, the fundamentalness or the foundasionality of reason as the source of knowledge and justification is due to the reason that it is based on some regularity or mathematical laws that become the internal structure of reason itself. That laws finally determine the workings of reason in determining certainty and truth. It can be inferred that through derivative elements like that of intuition and/or deductive reasoning, there are some knowledge that are graspable by the power of or merely by intuition. Other arguments are understandable through deductive reasoning from propositions intuitively grasped. Intuition is understood as a direct grasping of the truth of the essence of reality. There is varied understanding on intuition. Some believe that intuition is always true whereas some admit the possibility of mistake or error. There are also those who believe that the trueness of intuition is applicable only in mathematics.

Aside from intuition and deduction, the concept of innate ideas, or inborn ideas also become an epistemological element of the rationalist's positions. This idea points to the assumption that some truths are innate and human knowledge is deduced from them. These ideas are believed as having been there found intuitively in experience.

Empiricism on the other hand emphasizes on experience as the basis, foundation and warrant for truth and certainty of knowledge.¹⁰ Aristotle is usually considered as the classical empiricist while thinkers like Francis Bacon, Thomas Hobbes, John Locke, and David Hume are considered as the modern empiricists. They established the stance that, knowledge must be established based on the sensible experience or psychological experience. There are several types of 'empiricism,' but the most general version of empiricism is the belief that "in all of its forms, empiricism stresses the fundamental role of

¹⁰ Peter Markie and M. Folescu, "Rationalism vs. Empiricism",

experience. As a doctrine in epistemology, it holds that all knowledge is ultimately based on experience.”¹¹ William P. Alston writes further that,

...empiricism always assumes a stratified form, in which the lowest level issues directly from experience, and higher levels are based on lower levels. It has most commonly been thought by empiricists that beliefs at the lowest level simply ‘read off’ what is presented in experience. If a tree is visually presented to me as green I simply ‘register’ this appearance in forming the belief that the tree is green. Most of our beliefs – general beliefs for example – do not have this status but, according to empiricism, are supported by other beliefs in ways that eventually trace back to experience. Thus, the belief that maple trees are bare in winter is supported by particular perceptual beliefs to the effect that this maple tree is bare and it is winter.¹²

The idea of ‘experience’ in itself can be difficult to explain. In general, it is understood as “any mode of consciousness in which something to be presented to the subject, as contrasted with the mental activity of thinking about things.”¹³ The basic idea of empiricism that, the position of experience as the origin and the foundation of knowledge refers to the concept that, in the formation of understanding and knowledge, it is enabled or determined by the direct and vivid interconnectedness of subject’s consciousness and the objects perceived in the event of sensible contact between the subject and thing. For the empiricist, it determines the various types of representation of the image of the object in consciousness. The clearest and detailed accounts of the position of empiricism can be found in the epistemological thoughts of Locke and Hume. And, even though there are several degrees or hierarchies in empiricism’s form, in general, what is emphasized is the position of experience as the basis or foundation in acquiring knowledge.

In sum, it can be said that the whole process of the knowing for the empiricists begin with sense experience - which is, the mental or psychological contact between subject’s consciousness and the objects that is caught by the consciousness itself.

Epistemological Contributions

The abovementioned schools of thought gives us two main contributions in epistemology. Firstly, *the basic concept of the structure of the formation process of knowledge*. This contribution can be analyzed directly from the reaction of the epistemologists, both the rationalists and empiricists towards the sciences and philosophies during their period. Their critics, agreements and disagreements on some philosophical concepts and sciences during their era finally pushed them to establish their own philosophical positions. It is through this that investigation on the status of knowledge itself emerged.

¹¹Williams Alston. 1998, “Empiricism” in *Routledge Encyclopedia of Philosophy*, Taylor and Francis, viewed 3 October 2021, <<https://www.rep.routledge.com/articles/thematic/empiricism/v-1>>. doi:10.4324/9780415249126-P014-1.

¹² Alston, “Empiricism”.

¹³ Alston, “Empiricism”.

As previously said, the debate between these two schools began with the position and the status of experience. They analyzed and questioned the status of experience (sense experience) as the means of the process of knowing. The status of experience determines the character of knowledge and understanding, that the process produces. Although rationalists do not entirely reject the status of experience, their claim that there is some knowledge which can directly be gained without depending on experience is rebutted by the empiricists' insistence on the role of experience as the source of the process of knowing. In Descartes' radical method, he considers the objective world as something unreliable, and thus he refused to believe and rely on sense experience as the basis for knowledge.¹⁴ He claims that sensible experience is unstable so there is no certainty to treat or to consider it as the basis for knowledge. Other rationalists seem not to explain in detail the role of sense experience especially regarding the status of objective things which become the element of the structure of experience.

Following 'experience' is the process of sensation. This is also referred to as sensible perception, sense perception, or perception. This means that experience is the event of the interconnectedness of subject's consciousness and the objective things – that occurrence points to the event of the mental or psychological interaction between the consciousness and the particular object. This phase or element appears or is found particularly in the analysis of the empiricists. It is seen as an event or happening because it occurs outside the will of the subject. The moment of encounter happens without, and even before, any conscious act. The event of the mental interaction or psychological grasping of the objects, particularly its essence, for the rationalists is called as the event of intuition. As previously said, intuition is the event of a direct catching of the essence of reality or object. Rationalists believe that reason can intuit the essential element of reality which determine the existence of reality itself.

After the phase of 'sense perception' is the process of conceptualization. Inhere belongs the event of belief, imagination, memory, formation of ideas (the event of understanding), process of reasoning and inference, and judgement. These detail happenings appear more in empiricism. Whereas, rationalists generally speak of deduction: the reasoning which is based on or derived from some fundamental truths or knowledge which have been found intuitively in reason. For them, conceptualization happens in the faculty of reason alone. It is reason that determine the possibility of grasping, understanding and knowing.

Empiricists like Hobbes, Locke, Berkeley and Hume describe the process of the formation of knowledge. According to them, the starting point of the process of knowing is the event of sense perception. In this moment, the image of the object (*phantasma*) enters

¹⁴ Rene Descartes, *Discourse on Methods and Meditations*, Translated and Introduction by Laurence J. Lafleur (New York: The Liberal Arts Press, Inc., 1960), 71–80.

through interaction with the consciousness which is the basic element of the subjectivity. Almost simultaneous to sensible experience is the event of the formation of image (*phantasma*) of the objects in the faculty of reason. The forcefulness and the vivacity of the directionality and the perceptive interaction between the consciousness and the object determine the degree of the quality of image copied and being attached to the consciousness (reason). The power of vivacity finally determines the possibility of the *phantasma* to be attached in consciousness. The power of attachment builds the belief in reason the idea of things perceived. In this 'belief', there is a formation of ideas which is influenced by custom and habit. The possibility of the image of the object being attached or copied by or enter into the consciousness depend on the forcefulness or the vivacity of the event of sense perception. The vivacity or the vividness of the sensible contact itself depends on the quality and the focus or directionality of the consciousness towards the objects caught. The more concentration or focus is carried out, the quality of the image copied is higher. The empiricists in general claim that the formation of ideas is determined by or naturally categorized based on the principle of causality, resemblance and contiguity.¹⁵ According to the empiricist, it is in this phase that the formation of knowledge begins. It is claimed that the image of the thing copied, is then processed by reason which serves to form the ideas which are categorized as simple ideas and plural ideas.

The detailed explanation about this process of the formation of the ideas in reason can be seen more in Locke and Hume's elaborations. For Hume, the process of understanding begins when some ideas naturally relate each other. According to him, this process happens not in the control of reason. The process itself happens in three causes or principles: "resemblance, contiguity and causal connections."¹⁶ This phase produces concepts and understanding. Hume and Locke also claim that all the reasoning which is inferred from experience or objective fact will lead to probabilistic knowledge. There are some ideas which are true just by the relations of ideas, like math and logic.¹⁷ Thus, from the notion of the basic structure or phases of the formation of understanding and knowledge, it can be found that two kinds of reasoning or knowledge are produced or inferred: (1) knowledge which is built up by a merely relations of ideas which appears in mathematics, analytics, logic, etc.; and (2) probabilistic knowledge which is produced by experiential reasoning or factual reasoning.¹⁸

Second, is the metaphysical foundation of the process of the formation of knowledge as established by the rationalists. Rationalists like Rene Descartes speaks of reason as the

¹⁵ David Hume, *A Treatise of Human Nature* (New York: Oxford University Press, 2000), 13–14; David Hume, *Enquiry of Human Understanding* (New York: Oxford University Press, 1999), 101.

¹⁶ Hume, *Treatise*, 13–14.; Hume, *Enquiry*, 108.

¹⁷ Hume, 108–109.

¹⁸ Hume, 108–9, 113.

foundation of knowledge which leads to three innate ideas as metaphysical basis of epistemological reasoning. Although, there are various interpretations on the idea of reason, rationalists like Spinoza and Leibniz emphasize the same thing.

Spinoza speaks of substance - which is either God or Nature (*Deus Sive Natura*) - as the metaphysical basis of the act of knowing or the process of the constitution of knowledge. He speaks of two kinds of attributes which are thinking and extension. He then differs the hierarchy of knowledge: imagination and sensible knowledge, rational knowledge and intuitive knowledge. Leibniz, although speaks of the multitude of monads or substance, emphasizes two kinds of fundamental activities of monad which is to know and to will. These two kinds of activities are the foundation to understanding the origin of the act of knowing in human existence. Both Spinoza and Leibniz establish the metaphysical basis or place where the act of cognition takes place in human existence.

Thus, as a whole, there are at least two fundamental contributions which both rationalism and empiricism provide for the philosophical discourses of knowledge and the process of understanding.

Epistemological Habits

The contributions of the two epistemological schools imply some epistemological habits or virtues. These habits are 'epistemological' because it is concerned with the problem of knowing. It deals with matters that must be thought of based on conceptual findings. It is philosophical as well because it deals with the fundamental or essential ideas on how to critically think or epistemologically establish as the foundation for everyday understanding and living. The term 'epistemological' can be interchangeably used with the idea of 'epistemic' in the same sense. The idea of 'habit' is interchangeably used as well with the notion of 'virtue.' Habit is used according to the interpretation or understanding of Hume and Locke.

For Hume, habit epistemologically points to the event of repetitiveness. It refers to the constant repetition experienced by reason or consciousness due to the interaction with object. It is a stable constancy. It can be understood as repetitive regularity, continueness, the repeatedness of something, dynamicity, automatic and natural process, and continuity.¹⁹ Epistemic virtue in this context is understood in the same perspective. It concerns the conscious repetition, continuation, regular and conscious constancy of attitude or acts in living or practicing something that is related to the matters of understanding and knowing. The idea of habit in this context can be interchangeably used with the term virtue. The idea of virtue here points to the customary, habit and habituation with the deep awareness, critical thought and progressive dynamicity. Virtue, on the other hand, is considered as some

¹⁹ Hume, 121.

essential wisdom that when lived by someone, will lead one to attain the highest quality of life.

First habit that can be thought of is *keeping the intimacy with the experience*. Both two schools establish different positions regarding the status of experience. Rationalists as shown by Cartesius, claims that, experience, especially sense experience is unstable, unsure, sensible, unreliable, etc. Empiricims, in principle, agree on that claim, but keep on insisting that, though, it is unstable, the process of knowing has to be started or established by sensible experience. The rationalists agree, but claim that there are some cases which reason can independently create knowledge and understanding without depending on experience. People like Descartes apply the method of radical doubt to ascertain the basis of knowledge itself.

To insist the habit of keeping the intimacy with things in experience points to the idea that to ascertain the certainty of things, one must be deeply be attached with what one lives, experiences and does, since experiences are always changing, dynamics, progressive, unstable and uncertain. Naturally, one always needs something certain as the basis for living and understanding. In the encounter with the uncertainty of things or the relentless change in and of reality one needs to keep attaching its self with the things he experiences. The idea of 'keeping the vivacious interconnectedness with what one experience's means to treat the experience as something that one lives continuously, keeps it with regularity, keeps the conscious involvement, has deep understanding and internalization, internalizes a forceful dwelling, keeps contact with vivacity and entirety of the self. Only through these habits or virtues, the possibility to arrive at what one needs for his everyday living and understanding can be warranted, although, it remains uncertain and is open to revision and development and progress.

The *second* habit is the *habit of reasoning*. Both rationalists and empiricists, use reasoning as a way to arrive at understanding and knowing. Regardless of how vulnerable and problematic it is, the act of reasoning, conceptualizing or abstraction is needed for everyday practicality and living. Rationalists, like Descartes start with the act of doubting the reality he perceives through sensible perception, and comes up with the abstraction or conception that subjectivity is the only thing that shouldn't be doubted. He then claims that it is the most fundamental truth and certainty which is not doubted. Empiricists like Locke and Hume divides of the relation of ideas and the matter of fact as the two models of reasoning which finally lead to the analytical and synthetical or factual judgments.

The idea is that although what one conceptualizes, understands and claims is still open to revision and critics, one must continue constructing conceptual instruments as tentative tools for everyday understanding and living. It is fundamentally needed for existential continuity and the need for meaning and values for existential fullness. As a habit or virtue, the act of conceptualizing is something that has to be regularly made. Even though,

it is always criticized and revised, one fundamentally and undeniably has to create concepts or ideas for its daily existential needs. It must be lived with vivacious involvement, forceful understanding and total seriousness.

Close to the idea of conceptualization, the *third* habit that has to be thought of is the act of *optimizing the epistemic function of memory, imagination and belief*. The idea of ‘optimizing the epistemic function of memory, imagination and belief’ in this sense points to the idea that one needs to optimize the role of memory as the capacity or faculty of reason which is used for epistemological activities like memorizing, remembering, and internalizing. These activities in principle will support the quality of understanding or concepts one builds, and knowledge one produces. To consider and claim it as habits means to push one to use or apply it for the needs of everyday understanding. One needs to use its memory optimally with constant use, righteous and forceful usage. The same thing can be said to the other two: imagination and belief. These elements are found in the thoughts of Locke and Hume.²⁰

The *fourth* habit is *to understand the anatomic status of reason and the dialectic character of reason*. The other habit that can be analyzed is the facts contributed by the spirit of sciences which influences the epistemologists of the modern period. One important finding provided by them is the experimental methods used by physicist Issac Newton. Most epistemologists learn his methods and apply these in their philosophical studies. Most of them used his methods to investigate the nature of the workings of the faculties and the capacities of humans which finally determine the way they think and live. Hume, for instance, uses Newton’s methods for investigating the capacities of human thought. He finally found that the fundamental characters of the working of human capacities or faculties of knowing particularly are biological, animalistic, anatomics, natural, tending to be fragile, defective, and imperfect. Due to that fact, it implies on some admittance of the inconsistencies, irregularities, defection, and instability of the process of reasoning and inference itself. Nature, therefore, has the probability of producing the uncertainty, unstability, inconsistency and irregularity in one’s reasoning and knowing. The admittance or acknowledging these natural facts will help one arrive at a more critical understanding of one’s claims and inferences. As having explained, Hume in his analysis finally arrives at two forms of knowledge or reasoning - logical or rational knowledge - which is established purely by the relation of ideas. It then produces mathematical knowledge, as an instance. Another one is the experiential knowledge which is always probable in its status or character. It is due to the inference established from sensible experience. This idea creates a clearer and most realistic claim about what one claims as his or her understanding or knowledge.

²⁰ Hume, *A Treatise*, 13–14.; Hume, *Enquiry*, 18.

To think of that aspect as a habit or virtue means to keep in mind or bear in mind that what one thinks or claims as knowledge must always be ascertained or considered with the status and the nature of the functioning and workings of cognitive capacities and the faculties that one has. To consider and to be aware of its nature and essence will lead one to be more rigorous and critical in establishing his or her knowledge. To consider or to treat it as habit or virtue means to be always aware of it, to constantly consider and involve the knowledge of the status of the working of those capacities and faculties as the foundation, and the starting point in searching for understanding and knowledge.

Conclusion

Rationalism and empiricism are the two epistemological schools which signify the new approach in philosophical discourses in the Modern Era. To some extent, these schools of thought have become the foundation of the modern approach of knowledge. Rationalism, as started by Rene Descartes claims that reason is the foundation of knowledge. There is some knowledge which can be directly established by reason without depending on sense experience. On the other hand, empiricism claims that all knowledge comes from experience. The difference of the emphasis finally implies some elements which are integral part of the structure of the process of the constitution of knowledge itself. Rationalism contributes to the metaphysical foundation of the process or the event of knowing whereas empiricism produces two kinds of knowledge - relation of ideas and the matter of facts. The relation of ideas produces the mathematical and logical knowledge, and the matter of fact produces the experiential knowledge or probabilistic knowledge as Hume establishes.

These implications finally lead to some epistemic or epistemological habits. The routines are the habit of keeping the relationship with objective things as the starting point or source of knowledge, to optimize the habit of reasoning, to remain open to any possibility for revision relentlessly what one theoretically finds, to make optimal the activity of memory, imagination and belief, to admit and understand the status objective of sensible apparatus (senses, reason, etc.), and to recognize the status of probabilistic knowledge. These are habits derived from the fact of the status of sensibility which implies on virtues that one needs to consider when one thinks of knowledge for everyday understanding and living.

Bibliography

- Alston, William. "Empiricism" *Routledge Encyclopedia of Philosophy*, Taylor and Francis, 1998. <https://www.rep.routledge.com/articles/thematic/empiricism/v-1>, doi:10.4324/9780415249126-P 014-1.
- Brenner, William H. *Elements of Modern Philosophy: Descartes through Kant*. New Jersey: Prentice Hall, Inc., A Division of Simon & Schuster, 1989.

- Copleston, Frederick. *A History of Philosophy: Modern Philosophy; Descartes to Leibniz*. vol. 4. New York: Image Books, A Division of Doubleday & Company, Inc., 1963.
- Descartes, Rene. *Discourse on Methods and Meditations*, translated and introduction by Laurence J. Lafleur. New York: The Liberal Arts Press, Inc., 1960.
- Hume, David. *Enquiry of Human Understanding*. New York: Oxford University Press, 1999.
- . *A Treatise of Human Nature*. New York: Oxford University Press, 2000.
- Markie, Peter and M. Folescu, "Rationalism vs. Empiricism", *The Stanford Encyclopedia of Philosophy* (Fall 2021 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/fall2021/entries/rationalism-empiricism/>.
- Thilly, Frank. *A History of Philosophy*. New Delhi: Manish Sabharwal SBW Publishers, 1993.

