

# The Sociology of Knowledge and Science

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**ABSTRACT:** This article is intended to investigate the formation and development of the sociological approach to knowledge and science. On this basis, having examined various existing approaches to the issue of science and knowledge, we discuss factors that have influenced philosophical discussions from ontology to epistemology, and from there to the philosophy of science and the sociology of knowledge.

The roles of Kant, Hegel and the empiricist approaches to epistemic developments are examined in detail, and while explaining the basics of a sociology of science and knowledge, there is a discussion of the shortcomings of these approaches, pointing to new horizons that may lie beyond them.

**KEYWORDS:** sociology, knowledge, Kant, Hegel, ontology, empirical epistemology, logic.

## *Various Approaches to Knowledge*

Knowledge and human awareness can be studied from various perspectives, and man has been historically inquiring about human knowledge. Amongst the various approaches to human knowledge we may point to ontological knowledge; epistemology; logic; the physiology of knowledge; the psychology of understanding and knowledge and the sociology of knowledge.

Ontological knowledge examines the various existential aspects of knowledge, such as how knowledge exists and the unity of the knower, knowledge and the known.<sup>1</sup> Epistemology somewhat concentrates on the relationship between

knowledge and what is known, and attempts to see how knowledge in itself goes beyond the limits of human knowledge.<sup>2</sup>

The methodology of logic adopts the two essentially applied approaches of the production of scientific theories and the way these theories can be applied to various subjects.

The physiology of knowledge examines the corporeal conditions for knowledge, and the physiological changes that take place in different areas of the human body when learning.

### ***The Sociology of Knowledge***

The social sciences have never overlooked the place of human knowledge within society. Al- Fārābī organises his social typology according to different epistemic states,<sup>3</sup> whereas Ibn Khaldūn considers tension a state of sensational-emotional knowledge whose changes bring about social development.<sup>4</sup>

Auguste Comte, known as the founder of classical sociology, interprets the three stages of human history on the basis of three types of knowledge; theological, metaphysical and positivistic. From his point of view, sociology is nothing but the knowledge of understanding and cognition.<sup>5</sup> Durkheim, who secured sociology an academic place, emphasises the social identity of human knowledge, especially when he refers to theology as the manifestation of the common conscience of society.<sup>6</sup>

Marx, in addition to theological knowledge, relates political and ideological thinking to the social classes.<sup>7</sup> Max Weber points to the conscious epistemic identity of the social system, and draws attention to the non-empiricist nature of sociology.<sup>8</sup> The social sciences in a general sense, specifically sociology, psychology and psychoanalysis, have always examined human knowledge, and their approach is distinguished by the fact that the social aspects of awareness, such as the mutual impact of knowledge, are taken into consideration. The

sociology of knowledge seeks to underline the decisive presence of the social system in each individual's epistemic scheme.

In recent decades the social interpretation of knowledge has been more successful than other approaches. The increased attention given to social explanations of knowledge has introduced the sociology of knowledge as an independent domain in the social sciences.

Max Scheler was the first to use the term 'sociology of knowledge' (wissensoziologie) in the early 20th century. By the end of the same decade, the sociology of science was recognised as a specialised field. Mannheim regarded the sociology of knowledge as the core of his sociological analyses, and said, 'I want to annihilate the traditional epistemology.'<sup>9</sup>

The sociology of knowledge benefited from the heritage of classical 19th century sociology, and immediately examined certain aspects of knowledge such as theology, ideology and philosophy. Yet there were still doubts about its ability to include theoretical awareness, which today stands as a 'science' independent of other types of awareness labelled as 'knowledge.'

The addition of the Frankfurter School to the circle of sociologists inheriting 19th century Marxism, and the influence of the phenomenological approaches of contemporary theorists, provided the sociology of knowledge with the impetus to analyse man's scientific productions, and in this way the sociology of science found a foremost place among the sociological theories.

The conquering realm of science replaced epistemology with sociology, and undertook the mission that the philosophers of science had historically claimed.<sup>10</sup> Thus, the sociology of science treated epistemology and the philosophy of science the same way they had treated ontological knowledge after Kant.

Having superseded the psychological and physiological analyses of knowledge, as well as epistemology and the philosophy of science (in some cases treated as logic), the sociology of science claims to inherit the majority of the sciences which have developed throughout the history of scientific endeavour.

The prevalence of the sociology of knowledge and science over other questions about human knowledge is indebted to the epistemological and ontological approaches, rather than being the unique effort of sociologists. This is because ontology is logically prior to other epistemic queries, including epistemology, logic, the physiology of knowledge, the psychology of knowledge and the sociology of knowledge.

### ***The Ontology of Science and Epistemology***

Ontology influences epistemology in terms of elucidating various topics,<sup>11</sup> because every epistemological discussion relies on several subject-related existential principals. The principle of reality, which determines the boundary between fallacy and philosophy, is an ontological principle, and to deny this would change the fate of knowledge. On the other hand, accepting the principle of reality – which is a necessity – means admitting the principle of knowledge, because, by reconsidering the need to admit the principal of reality, we would confess to being aware of the truth it embodies.

Many philosophical issues require epistemological explanations. Any discussion of immaterial existences and many examples in Plato, despite being ontological matters, involve an interpretation and analysis of knowledge. Debates between the sceptic's contradictory plurality of the universe and existential concepts which finally result in the unity of knowledge and the universe, provide researchers with other ways of solving the problem of knowledge.<sup>12</sup>

Although existential predications are prior to all – or some – epistemic issues, certain epistemic issues obstruct the interpretation of existential facts. In the peripatetic school and illuminationism, some arguments for proving immaterial existences rely on the reality of knowledge. This shows that although some philosophical matters are prior to those of epistemology, certain others flourish in conjunction with them.<sup>13</sup>

A neglect of metaphysics (the knowledge of existence as such) affected much of the foundations of epistemology, and meant the abandonment of certain

principles that epistemologists had abstracted from metaphysics. John Locke and Hume, who examined epistemic discussions regardless of existential issues, intervened in a way which eventually led to the failing and collapse of epistemology.<sup>14</sup>

By disregarding ontology and metaphysics, Kant changed the fate of epistemology,<sup>15</sup> and brought structural skepticism into the body of human knowledge. Hegel returned to the existential and metaphysical discussion. This happened in a way that gave a historical structure to human knowledge,<sup>16</sup> and prepared the ground for the omission of Kantian epistemology. It also helped the sociology of knowledge and science overcome other epistemological problems, as we will later see.

### ***Ontology and Logic***

Logic is an organic science and a tool for investigating the principles of thought. It also explains certain philosophical principles, yet in some important respects, such as the origins of its formation and other side issues, it is in need of philosophical and existential analysis.<sup>17</sup>

Some philosophical principles, like the origin of contradiction and the impossibility of the coincidence of two opposites, are among those involved in the emergence and formation of logic. In such cases, philosophy is independent of logic, because its axioms are the primary self-evident axioms of philosophy, and adduced arguments are not aimed to prove them, but rather to prove their priority or their quality.

Theoretical philosophy utilises a number of logical principles. It also provides logic with findings which help logic solve other problems. Thereby an interaction between logic and philosophy continues without falling into a vicious circle.<sup>18</sup>

As originally developed by Aristotle, logic is inherently influenced by various peripatetic principles. In the Muslim world, the peripatetic philosophers, especially Ibn Sina, worked in this field more than others, and for this reason it continued under the aegis of the peripatetic school.

Various principles discussed in illuminationism, transcendent philosophy and theoretical mysticism interfered decisively in the outcome of some of the logical discussions. Despite being mentioned in peripatetic compilations, they are not discussed in an orderly and comprehensive way in texts on logic.

Modern philosophical currents, apart from avoiding philosophical discussion as such, doubt the metaphysical principles of logic, and logic no more enjoys the tranquility achieved through more than a millennium of relying on common philosophical principles.

Logical principles, having lost their metaphysical foundations, have turned to presuppositions, and thereby lost contact with reality. All discussion of the tripartite division of being, which uses the metaphysical principles of necessity, possibility and impossibility, has lost its scientific efficiency through this disturbance, causing increasing problems for modern dialectics. Such issues with logic, like other problems that question logic as a whole and its relationship with reality, can be solved only by referring to the metaphysical and existential principles of logic.

### ***The Ontology of Knowledge and Empirical Epistemologies***

Many of the existential and physiological discussions of knowledge can be maintained parallel to one another. Philosophical judgements about the existence and/or nonexistence of science, the immaterial existence of science, or the concomitance of existence and knowledge, are not in need of physiological investigation, while empirical inquiries into action and interaction that emerge while acquiring various types of understanding pay no specific attention to the physical and metaphysical discussions. Indeed, trust is placed in the philosophical issues in the same way that the empirical sciences trust and use metaphysics for their ontological and metaphysically-established principles.

To judge whether knowledge is an outcome of action, which natural scientists investigate in their studies, or an immaterial facet for which natural actions

are preparatory causes, does not require a natural judgement, but rather a philosophical and metaphysical one.<sup>19</sup>

The natural and empirical sciences are incapable of making judgements about existence and/or nonexistence, as well as on any immaterial and non-empirical aspects of knowledge. If one's metaphysical position regarding philosophy is positive, there is the chance of conducting a philosophical enquiry into the immaterial existence of knowledge in order to know its properties, but if it is negative or has doubts, the ground is prepared for natural science to replace the philosophical discussion of knowledge.

The same thing that happened with the relationship between the ontology of knowledge and the physiology of knowledge can take place between the ontology of knowledge and the epistemic discussions of the psychologists and sociologists. That is to say, philosophical and metaphysical positions interfere in the relationship between both psychology and sociology and philosophical discussion. A non-metaphysical or non-philosophical science is incapable of making a judgement on Plato's examples of subjective immaterial existences, for such a thing would be beyond its scope; the result of any attempt to do so would simply influence the design and formation of a psychological or sociological debate on knowledge.

If we consider knowledge and science – and consequently reality and truth – as derived from a fixed celestial sphere beyond the world of change, then the natural sciences, including the sociology of knowledge, as they move on the path of change, inevitably organise their discussions in a way that preserves the fixed and non-relative aspect of reality. If philosophical science turns its face from the sphere of meanings, or if philosophical knowledge loses its scientific and cosmological credit, the hypotheses and suppositions of natural science have no clear and definite sanctuary whose fate is determined in a broader way, whereby the sociology of knowledge would at least have the chance to extend its domain of judgement to those of science and reality.

### ***The Philosophical Boundaries of, and Obstacles to, a Sociology of Knowledge***

The developments in the sociology of knowledge, as described, are rooted in changes taking place in the metaphysical and philosophical grounds of knowledge. The philosophical movement facilitating the displacement of epistemology and ontology by the sociology of knowledge, has been determined by an empiricist current marked by two turning points in the history of rational thought in Western philosophy, namely Kant and Hegel.

Philosophy and metaphysics are sciences of the properties of existence, properties which relate to its essential determinations.<sup>20</sup> In philosophy, the principles of existence concern those of absolute existence, and include all the beings which are unseen by the limited senses that pertain to natural and material beings. The physical senses only recognise things subject to material limitations. The recognition of properties beyond natural and material limitations requires non-sensational epistemic sources. For this reason, empiricism inherently comprises a denial of metaphysics which is inevitably articulated. On the other hand, philosophy and metaphysics require contemplation.<sup>21</sup> In other words, rationalism is a shallow form of philosophy. A higher level of existential knowledge is intuitive knowledge, which begins through rational intuition and continues upwards to further levels. Religious knowledge begins with an intuition of the reality of existence, seeing the Face of God and communicating with the Divine, and descends to the horizon of concepts that indicate an absence of existence. Conceptually it involves rational cognition as well, and subsequently manifests its purity and sanctity in the form of words that express levels of awareness.

An intuitive knowledge of existence can obviously be found in Plato's philosophy as well. The people dwelling in the cave in Plato's story do not merely have a conceptual understanding of things – like realising the shadows of heavenly truths – but rather make an existential movement to return to rational principles achieved through purification and discipline.

The Muslim peripatetic philosophers also discuss intuition. In the works of Ibn Sīnā and al- Fārābī, the heavenly faculty is the same as that achieved through man's existential connection to the active intellect. The outcome of this faculty is a science and knowledge achieved directly and independently of conceptual reasoning. Both these philosophers consider such perceptions to be a part of theological knowledge and prophetic perception.<sup>22</sup> Intuition also plays a pivotal role in the cognition of the reality of existence in theoretical mysticism, transcendent philosophy and illuminationism.<sup>23</sup> The Christian philosophers of the Middle Ages have also taken rational knowledge and intuitive cognition into consideration.

In post-Renaissance philosophy, rational knowledge is based on conceptual and acquired cognition. In the works of Descartes, intuition is nothing but conceptual evidence, and this continues through to the works of Spinoza and Leibnitz, until finally Kant posits the nonexistence of rational intuition.<sup>24</sup>

When the supra-rational aspects of intuitive knowledge persist alongside rational science, there is always a paradigm of knowledge which is free from material change, enjoying a kind of inherent stability and sanctity, and which determines boundaries against obstacles such as the inclusion of a general sociology of science and knowledge would involve.

### ***Kant's Position on the Sociology of Knowledge***

The turning point represented by Kant in the history of rational science is not a denial of rational concepts, but rather a termination of the relationship between rational concepts and the main body of existence and reality. This same turning point is when Kant's Copernican Revolution takes place, after which reality and existence no more emerge from the horizon of rational concepts, but are instead introduced as veils. Concepts which once were in the realm of metaphysics become nothing but masks, which, in relation to sensible realities, display a contaminated form of reality<sup>25</sup> twisted by relativity.

Belief in the theory of the intellect meant that metaphysics and philosophy

maintained a divine aspect in the heavenly spheres beyond temporal change. Because of this, a considerable portion of the humanities were located in the realm of reality among the philosophical discussions of knowledge.

Kant closed the way of heaven for philosophy. He introduced the theoretical intellect as having no cosmological credit, and consequently regarded philosophical discussions of knowledge – that could stand independently from or alongside cosmology – as unscientific. However, Kantian philosophy included an element which obstructed the emergence of a sociology of knowledge in the field of philosophy. He contrasted the necessity for the stable existential aspects of rational realities to a mentality which follows the futile path of metaphysics in an incomplete but stable way. He also considered the structure of sensible knowledge, which from his point of view appeared to be in contact with an unknown reality, to be contaminated with the same stable, but incomplete, mentality.

From Kant's point of view, metaphysics and the philosophical discussion of science were void, yet epistemology, as an effort towards knowing the same stable mentality, seemed more useful and credible,<sup>26</sup> and he thought a science like the sociology of knowledge could never replace it.

In Kant's epistemology, sociology was incapable of analysing the philosophical and metaphysical aspects of religion, because despite of the fact that knowledge of existence and metaphysics had no value in Kant's view, its emergence was an outcome of moving along a path of aimlessly fixed subjective concepts, and it was epistemology which was supposed to determine this path.

Kant's contribution to the sociology of science is indirect. He questioned the scientific credentials of metaphysics and the existential discourse on knowledge. Meanwhile, his epistemology did not admit philosophy and the metaphysical aspects of religions, and ethical values – represented by the practical intellect – would be completely exposed to sociological analysis.

### ***Hegel and the Historical Approach to Thought and Intellect***

Kant dismissed reality as such from the realm of human knowledge, yet he maintained the memory of it. Kant's unknown reality was the last vestige of the applicability and reality of existence – but not its meaning – in the history of Western rationality. The stability of Kantian concepts was also a mirage of the eternal, immaterial existences which were previously at the core of the philosopher's metaphysical enquiries. Hegel dismissed both these from rational philosophy. Denying the unknown essence of existence, he also denied the instance of the universe, which emerges with the concept of existence not as its core, but as the face.

Existence from Hegel's point of view is nothing but the concept of it, and this concept, in the absence of an original exemplar, conforms only to a defined and limited essence, and becomes, according to him, the common genus of all essences.<sup>27</sup> In this situation, the concept of existence is always subject to certain principles of quiddity, or even its own principles and subjective requirements. Accordingly, existence in Hegel's philosophy is associated with becoming, and stability emerges as a concept which associates with a concept of existence at a certain point on the path of becoming and constantly evolving concepts and quiddities. Hegel's philosophy begins with a confusion of concept and instance of existence, a fallacy through which the instance of existence would be forgotten along with all its types and properties. Throughout the history of philosophy, many metaphysicians have faced shortcomings as a result of bringing existential determinations into their metaphysics. Kant, disregarding the body of reality and existence, refers to it as the 'thing-in-itself'; but Hegel neither goes through a determination of existence, nor refers to it. He rather draws a mirage of metaphysics.<sup>28</sup> The concept of existence in Hegel's view is neither a symbol of the existence of the universe nor its veil; it is the entire universe and the same false image.

In Hegel's methodology, philosophy is buried and its memory is forgotten, and stability – as an existential concept – loses its place, just like existence. In

this way, becoming and evolution overshadow objectivity, which is now like subjectivity and is attached to it. This consequently gave no chance for Kant's motionless epistemology – which he thinks stabilises even the futile notion of metaphysics – to emerge.

The permeation of evolution and becoming into the realm of thought and conceptual existence gives a historical slant to man's knowledge of philosophy, law, ethics, intellect, social behaviour, idea, religious beliefs, ideologies, technologies, and even affirmative science. The concept of existence associates change with all of these, and each one takes on the same colour.

The omission of metaphysics and all stable aspects of existence was followed by a view of thought and intellect as historical phenomena, and this prepared the ground for replacing the ontological and epistemological discussions by a sociology of knowledge. Since then, the internal logic of theological, ideological, and even scientific knowledge, could not undertake any determination of the reality of themselves. The only real knowledge was the same external perspective, which was the historical view of the intellect.

### ***The Sociology of Knowledge and Empirical Science***

While Kant and Hegel were moving on the path of rational thought towards a formation of an epistemology with a historical approach, empiricism was paving the way elsewhere.

Empiricism as an epistemic current started to emerge with Bacon, Locke, Berkeley and Hume, and soon manifested its secrets and inherent position on non-empirical knowledge. Value predications, metaphysical theorems, and finally non-testable bodies of knowledge, which constitute a major part of human knowledge in the fields of ethics, philosophy, art, ideology, etc., as well as the rational and theological bodies of knowledge, would lose the stability which is the initial requirement of scientific knowledge. They all became illusions and mental activities, like veridical dreams which can never be scientifically determined except from an internal point of view. In this way,

a major part of what the efforts of Kant and Hegel did to the theoretical intellect, the philosophical heritage and human thought, was done by empiricism alone.

The dominance of empiricism first voided all the sciences which sought after the metaphysical or epistemological aspects of science, and gave the right to assess human knowledge to the empirical sciences only.

Then all the rational and theological sciences were replaced by religious studies or new empiricist questions, which as secondary sciences, try to analyse rational, theological and metaphysical knowledge from an external perspective. It was in such a situation that the sociology of knowledge, not needing an announcement, was formed as a field of classical sociology in domains such as religion and ideology.

Durkheim dedicated a considerable part of his studies in *The Elementary Forms of the Religious Life* to the sociology of religion. He tried to find a sociological origin for every type of human subjectivism. Marx considered both religious and non-religious knowledge as determinations of social existence, and social class as the decisive factor regarding knowledge. Therefore, the sociology of knowledge, after being more or less in the background of sociological research, was introduced as an independent field in the early 20th century.

### ***The Privileges of the Philosophical and Sociological Approaches to Existential Factors of Knowledge***

In their questions on knowledge, both official and otherwise, sociologists have explained knowledge by way of existential factors. In this regard, their work was very much like what the philosophers did with knowledge and science. In the times when philosophy had a scientific value, scientific discussions would include existential reasoning and the properties of knowledge; and the only difference was the fact that the philosophers believed in, and stressed, the immaterial, abstract reality of science. For them, the efficient cause and final end of science – which guaranteed the authorship of

the actor and was consequently related to the efficient cause – was stable, abstract and sacred.<sup>29</sup>

Philosophical observations on science were able to free it from relativity and skepticism in many respects. Those philosophers who did not deny the contingency of man in nature, neither denied the contingency and emergence of his knowledge, and they believed that this contingency depends upon variable material causes and conditions. While proving that the reality of knowledge was stable and eternal, they admitted the variable grounds and conditions of human science. They did not primarily regard variable material factors to be efficient and definitive causes within science, but as preparatory causes. They considered an explanation of such things beyond the scope of philosophy, and that it belonged to the realm of natural and empirical science. They referred many such queries to the natural sciences, not philosophy. They also referred other matters to politics and sociology. Some philosophers like Aristotle and al- Fārābī, who were involved in sociological discussions as well, provided explanations of the social aspects of knowledge.

Classical sociologists, who study knowledge in positivist, or at least empirical ways, and the existential causes of knowledge, do not address absolute existence, but rather provide essential, material, and especially social determinations. Of course, such determinations are not existential realities in a precise philosophical sense, but means and accidents which associate them with the lowest rank of existence. It is merely demonstrating existence figuratively through accidental properties, rather than quiddities which have emerged in the lower ranks of existence. Although these ranks rely on existence in order to manifest, existence itself – despite the emergence of theophanies – is independent of properties, which are characteristics belonging only to instances of existence, and the concept of existence – taken into consideration in Hegel's philosophy – does not possess such an attribute.

The concept of existence is merged with essential and material realities, while

the effusion of being, despite giving colour to material things, neither takes on their colour nor is it subject to their laws.

### ***Positivist Boundaries of the Sociology of Knowledge***

Existential factors are unstable variables outside the discussions of metaphysics and ontology, but belong to the natural and social sciences. If we limit knowledge to this horizon and bring its effective and final causes down to this level, then stability and absoluteness, which free knowledge from relativity and skepticism, no longer apply. As a consequence, knowledge would inevitably lose its cosmological value. It is for this reason that whenever the sociology of knowledge turns to epistemic matters – or theology, philosophy and metaphysics – as the inheritor of earlier epistemologies, it spoils their freshness and life and denies their cosmological value. For example, Durkheim believed he was causing no harm to the reality of religion by studying theology. He found a chance to get close to religion and make judgements on it only after he had omitted the reality of religion and had taken the soul out of it. This was nothing other than a convenient belief in heavenly principles, and this is what most of sociologists after him admit.<sup>30</sup>

The sociology of knowledge, looking upon the various domains of knowledge from an external perspective, has no concern for the fate of the domains it gazes upon, such as the analysis of human belief in the realm of religion. However, since sociologists regard the empirical sciences as real science, they inevitably hesitate or stop when confronted with the limited realm they have provided for science. Once sociology enters the realm of science, as it does in other domains of knowledge, it spoils its cosmological value, including the epistemological value of sociology, and determines a sure fate for mythology, theology and the ideology of science.

Whilst a growing positivist current in science and, like Weber's non-empiricist sociology, loyal to the testability of science, the sociology of knowledge, despite being bold against other domains of knowledge as a result of trusting its own empiricist principles, hesitates to face the empirical sciences.

Durkheim believed that the basic issues of human thought have social origins, yet he tried to determine an objective origin for empirical science and relate this foundation to the quiddity of things.<sup>31</sup> He admits that empirical science, unlike theology, possesses the spirit of criticism and is free from judgements and mental impact.

Marx and Engels are related through Bach to Hegel, yet because of their materialistic interpretation of Hegelian teachings, and due to being attached to empiricist currents, they inevitably hesitate to present a sociological analysis of science. In his criticism of the political economy, Marx says:

Changing the general economic foundations results in a rapid change of structures. While studying such changes, we must always differentiate between the material changes of the economic conditions of production, which can be determined by the precision of the natural sciences, and the legal, political, theological, aesthetical, philosophical, and in other words ideological forms in whose domain human beings become aware of this conflict and solve it.<sup>32</sup>

Morton also believes that:

Marx and Engels are like those who believe that science is completely differentiated from ideology.<sup>33</sup>

### ***Conditions for the Emergence of a Sociology of Science***

Including scientific and empirical knowledge in the sociology of knowledge required Kant's criticism to come to the field of positivist perspectives, which believed in the purity and truthfulness of conceptual knowledge, and maintained this position to the last moments of their epistemological life at the beginning of the 20th century. The fall of the Vienna School was indicative of the association of Kantian teachings with the last vestiges of traditional positivism. Of course, Kantian epistemology, by merging the materialistic and empiricist perspectives, lost the stability and firmness which were indicative of its philosophical and intellectual background.

The outcome of this association saw neo-Kantian currents that accepted the active presence of the human non-empiricist intellect in the body of scientific knowledge, and submitted to the structural skepticism of empirical science, and yet denied the stability of subjective Kantian issues. These subjective Kantian issues are stable issues which are recognised through considerations replacing the precision of the theoretical intellect; and neo-Kantians replace those issues with subjective presuppositions and cultural beliefs that are not associated with any necessity.

Also, their establishment is based on social, cultural and historical conditions of mind, which are known through empirical investigations and suchlike. This evolution spoiled Kantian epistemology, which did not let the sociology of knowledge extend into epistemological domains, and developed a new epistemology that conforms to Kant in terms of disbelieving in metaphysics and the relativity of science, and to Hegel in terms of accepting the historical attributes of scientific knowledge.

The new epistemologies, known today as the ‘philosophy of science,’ prepared the ground for the formation and development of the sociology of science, and stepped toward it by avoiding Kantian metaphysics and epistemology.<sup>34</sup>

Frankfurter’s approach, due to being rooted in Marx, was more attached to Hegel. In conditions where philosophical and epistemological obstacles to the formation of the sociology of science are removed, this approach leads the way. On the other hand, philosophers like Popper, who are still seeking to replicate the pure empirical science at the margin of the Vienna Circle and within the framework of a neo-Kantian approach, cannot participate in this current.<sup>35</sup>

### ***Reflections on the Shortcomings of the Sociology of Science***

The sociology of science, as a replacement science which found the chance to emerge only after the fall of Kantian epistemology and metaphysics, despite being logically the end point of the philosophy of science, suffers a considerable

and intolerable shortcoming, because this science – as a replacement science – can never do what philosophy and metaphysics did for science.

Philosophy was responsible for existential and ontological discussions of knowledge. Philosophy was fond of reality, and safeguarded the cosmological values of the limited sciences against fallacy in such a way that understanding and reality were not accused of being relative. However, in the sociology of science, there are no signs of existence or existential factors, and it introduces as the causes of the formation of knowledge nothing other than essential determinations associated with the concept of existence. Analysing science within this framework not only results in the relativity of understanding, but also involves the reality, as admitted by the inheritors of Marx, of relativity.

The sociology of knowledge, as the science replacing the philosophy of science, epistemology and metaphysics, does the same thing to the realm of science that the sociology of knowledge had once done to epistemological domains like religion. That is to say, it starts omitting and spoiling its own subject matter, so that soon there would be no more differences between ideology, religion and other bodies of human knowledge.

Therefore, those attached to reality and who believe in metaphysics, contemplation, value-based behaviours, and the sacred domains of rational and theological knowledge, can never conform to this sense of the sociology of science. The empiricist current, while claiming to be real, or seeking for reality by imitating the rational and theological sciences, hesitates to enter the realm of the sociology of science.

### ***The Principles and New Horizons of the Sociology of Science and Knowledge***

The type of sociology that maintains a metaphysical, theological (and so forth) perspective, and believes in a real and stable knowledge beyond that referred to as 'science' in the empiricist perspective, can accept neither the sociology of science, nor the type of sociology of knowledge replacing other epistemological methods. Of course, taking a stand against this type of

sociology of knowledge is not the same as denying other types of sociology on knowledge that claim to include all aspects of knowledge.

Max Sheller pays considerable attention to this issue, and believes in the originality of idealistic beliefs and values, and accordingly takes a path in the sociology of knowledge which is in contradiction to theories formed on the grounds of empiricist thought.

A concern for reality and existence occupied Gadamer's thinking as well. He stands against the perspective that considers the sociology of science to be replacing the philosophy of science and philosophical science. His confrontation with Habermas is not like that of Popper. Popper lives with a mirage of reality. He tends neither towards theological and intuitive knowledge, nor to rational science. Instead, he tries to continue the positivist current of science with some adjustments and modifications. Gadamer, on the other hand, talks about the absence of existence in the Frankfurter neo-Marxist debates.

Reality, as the spirit of science, is associated with existence; and awareness appears through the emergence and manifestation of reality and existence. The presence of science as a manifestation of existence depends on essential determinations, and has no relation to the issues that come to the attention of forgetful man only after the absence of existence. For the same reason, the efforts made by the sociology of science to explain the causes and factors of the formation of what constitutes the reality of science and awareness are nothing other than waywardness.

The epistemological and philosophical grounds involved in the formation of the sociology of knowledge and science are indicative of the fact that researches and investigations conducted in this regard are not indifferent to various philosophical and metaphysical principles. On the same basis, the theological, philosophical and mystical traditions of the Muslim world can neither stand against nor associate with what comes through under this name in the same way. Muslim thought requires a specific path, whose subject

matter and metaphysical principles have been unquestionably organised in the form of various schools and traditions throughout the history of Islamic philosophy and mysticism. At this time, Muslim thinkers must know those principles, identify the paths taken by earlier thinkers, and go along paths which have not yet been taken.

### Notes

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8. *Ibid.*, vol. 2, 211.
9. Lewis Alfred Coser, *Masters of Sociological Thought (Zindigī wa Andāshih Bozorgan Jāmi'i-shināsī)*, trans. Moḥsen Thulāthī, Tehran: Intishārāt 'Ilmī, 1369 S.H, 564.
10. Ḥamīd Pārsāniā, 'Falsafeh-ye 'Ulūm 'Ijtimā'ī wa Jāmi'i-shināsī Ma'rifat,' in *Ma'rifat Quarterly*, No. 20, Spring, 1367 A.H..
11. Jean Andre Wahl, *Traite de Metaphysique (Baḥth dar Māba'duṭabī'ah)*, trans. Yahyā Mahdavi, Tehran: Intishārāt Khārazmī, 1380 S.H., 500.
12. 'Abdullāh Jawādī Āmulī, *Shinākht-shināsī dar Qur'an*, Tehran: Markaz Nashr Farhangī Rajā, 1372 S.H., 71-72.
13. *Ibid.*, 75.
14. Justus Hartnack, *Kants Erkendelsesteoiri, (Nazari-ye Ma'rifat dar Falsafeh-ye Kant)*, trans. Haddad 'Ādil, Tehran: Fikr Rūz, 1376 S.H., 21.

15. *Ibid.*, 84.
16. Ḥamid Pārsāniā, 'Tārīkh Insānī wa Insān Tārīkhī,' *Sharī'ah Kbirad*, ed. 'Alī Akbar Rashād, Tehran: Pazhūhishgāh Farhang wa Andīshih Islāmī, 1376 A.H..
17. 'Abdullāh Jawādī Āmulī, *Shinākht-shināsī dar Qur'an*, 87.
18. For the relationship between philosophy and logic see Abū Naṣr Al- Fārābī, *al-Manṭiqiyyāt*, ed. Muḥammad Taqī Dānishpazhūh, Qum: Maktabah Āyatullāh al-Mar'ashī al-Najafī, 1408 A.H, 5-6; and Ḥusain Ibn 'Abdullāh Ibn Sīnā, *Kitāb al-Qiyās men al-Shifā*, ed. Abdulrahmān Badavi, Qum: Maktabah Āyatullāh al-Mar'ashī al-Najafī, 1404 A.H., 10-18; and Quṭb al-Dīn Shīrāzī, *Sharḥ Ḥikmah al-Ishrāq*, Tehran, 1315 A.H., 50-51.
19. Sayyid Muḥammad Ḥusain Ṭabāṭabā'ī, *Uṣūl Falsafeh wa Ravish Re'ālism*, ed. Murtaḍā Muṭahharī, Qum: Daftar Inteshārāt Islāmī, 1363 S.H., vol. 1. 3rd essay.
20. 'Abdullāh Jawādī Āmulī, *Raḥīq Makhtūm*, Qum: Esrā Publications, 1375 S.H., 147-153.
21. Immanuel Kant, *Prolegomena to any Future Metaphysics (Tambīdāt)*, trans. Ḥaddād 'Ādil, Tehran: Markaz Nashr Dānishgāhī, 1367 S.H., 10.
22. Ḥusain Ibn 'Abdullāh Ibn Sīnā, *al-Ṭabī'iyāt men al-Shifā*, Qum: Bīdār, 359.
23. Shahāb al-Dīn Suhrawardī, 'Ḥikmah al-Ishrāq,' *Majmū'ah Muṣannaḑāt Shaykh al-Ishrāq*, vol. 2, ed. Henry Corbin, Tehran: Anjuman Ḥikmat wa Falsafeh-ye Iran, 1355 S.H.
24. Immanuel Kant, *Prolegomena to any Future Metaphysics*, 19.
25. *Ibid.*
26. *Ibid.*, 112.
27. Walter Terence Stace, *The Philosophy of Hegel: A Systematic Exposition (Falsafeh-ye Hegel)*, trans. Ḥamid 'Ināyat, Tehran: Shirkat Sahāmī Kitāb-hā-ye Jībī, 1370 S.H, 117-118.
28. Ḥamid Pārsāniā, *Tārīkh Insānī wa Insān Tārīkhī*, 457.
29. Mullā Ṣadrā , *al-Hikmat al-Muta'āliyah fī al-Asfār al-'Aqlīyyat al-Arba'ah*, Beirut: Dar Ihya' al-Turāth al-'Arabī, 1981, vol. 2, 272-277.
30. Raymond Aron, *Les etapes de la Pensee Sociologique*, vol. 1, 60.
31. Emile Durkheim, *The Elementry Forms of the Religious Life*, trans. Joseph Ward Swain, London: George Allen & Unwin Ltd, 1876, 148.
32. Michael Joseph Mulkay, *Science and the Sociology of Knowledge*, (*Ilm wa Jāmi'i-*

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34. Robert C. Holub, *Jurgen Habermas: Critic in the Public Spher*, (*Jurgen Habermas: Naqd dar Ḥawzi-ye 'Umūmī*), trans. Ḥusain Bashīriyyeh, Tehran: Nashr Ney, 1375 S.A.H., 54.
35. Muḥammad Riḍā Rikhtigarān, *Manṭiq wa Mabḥath 'Ilm Hermeneutic*, Tehran: Inteshārāt Vizārat Farhang wa Irshād Islāmī, 1378 A.H., 261-273.