

A Philosophical Look at the Place of Form in Modern Sciences

Sareh Taghvaee^{✉1}  | Mohammad Abbaszadeh-Jahromi² 

1. Corresponding Author, Associate Professor of Islamic Philosophy and Theology Department, Jahrom University, Jahrom, Iran. Email: baghershahi@ikiu.ac.ir
2. Associate Professor of Islamic Philosophy and Theology Department, Jahrom University, Jahrom, Iran. Email: m_abas12@yahoo.com

Article Info

Article type:

Research Article

Article history:

Received 02 September 2024

Received in revised form 10 November 2024

Accepted 12 January 2024

Published online 14 February 2026

Keywords:

Modern Sciences, Form, Suratnu'iyeh, Substance Theory, Nature

ABSTRACT

Form meaning typical form in philosophy is proved under the title of "total reality of an object" through a logical method. Modern sciences since 17th A.D. century have been formulated by the ideas of elites like Newton, Galileo, and Descartes via factors like alteration in academic tradition methodology, consolidation of mechanical look at nature and establishment of originality of evolution. Nowadays these sciences diminish the position of form and change that high position of to a quantifiable accident or storable information or a cause of unification among organs of a living creature. Islamic philosophers though disagree each other regarding explanation of its truth and its combination with matter and how the essence of flesh is formed, in fact, they do not raise doubt in its truth. Some by denying matter regard flesh identical with form and some by accepting matter regard their combination concrete and Mulla Sadra regards its combination with form unifying and by introduction of substance theory brings a tremendous revolution in the explanation of its position and how it evolves.

Cite this article: Taghvae, S. & Abbaszadeh-Jahromi, M. (2026). A Philosophical Look at the Place of Form in Modern Sciences. *Journal of Philosophical Investigations*, 20(54), 617-630. <https://doi.org/10.22034/jpiut.2024.57784.3580>



© The Author(s).

Publisher: University of Tabriz.

Statement of the problem

The "form" along with the "matter" has allocated an independent chapter in philosophy to itself. Philosophers have called the form one of the gems of the natural world, and often regarded it as the cause of the internal consistency and the fact behind the object being distinguished ... Needless to say, form has been applied to multitude meanings; Sometimes it is applied to the quiddity of the specimen. Sometimes to the quiddity including sex, season and type, and sometimes to cognitive or mental form, including the sensory, rational, imaginary which in this discussion means the material forms that requires the container of matter for their existence.

Philosophers have often referred to as the "agent of the actualizing an object" (Avicenna, 1984, 257 and MullaSadra, 1981 A.D, 2/128). and divided it into several types: (MullaSadra, 1981 A.D, 5/258).

- Or by no means in essence nor in terms of imminent actions has matter such as the sacred intellect and its subsidiaries.

- Or a form that does not inherently belong to matter, but belongs to matter in terms of its temporal changing actions such as constellations and their subsidiary subsets.

- Or if it is a matter that belongs to matter and has varying degrees of itself, as follows:

A. Elemental and mineral nature

B. Vegetable forms

C. Animal form.

- Or it is a form that belongs to matter and has varying degrees, as follows:

A. Elemental and mineral nature

B. Vegetable forms

C. Animal forms.

The focus of the discussion of the form in this article is about the world of nature and natural beings, which is expressed in the third category of the above three types. The various sciences are shaped based on particular worldviews, known as the philosophy of science or the metaphysics of science. The topic of the present study can be considered one of the topics of this important discussion.

On the other hand, after the Renaissance, the great scholars of the seventeenth century initiated such a great development in the sciences that this century is called the century of the birth of new and modern sciences (Barbour, 2005, 17). So the evolving sciences in the last few centuries can be called modern sciences. This article, while addressing the prerequisite for and principles of these sciences, underscores the fact that "science is based on its own worldview" and, considering the link between form and form-Creator, attempts to keep distance from the field of futile research and to open new windows to researchers.

Burt has referred to this new development as "new thinking" and knew it to be based on a different cosmology from the past (Burt, 1990, 5).

Opinions nowadays tend to: As it was natural for a medieval thinker to regard nature as a servant of science and result of science, goal and end for

human, it is natural today to regard nature as an independent being in its essence and in action. In addition, within the ray of what has been revealed so far in terms of human nature and human knowledge, the science and goal of the human being are caused by nature, and the human end depends on it (Burt, 1990, 5).

Hence the explanation of the attitude of new science to metaphysical issues, including the form is the subject of discussion.

The most important question that this paper seeks to answer is: "How is the attitude of modern sciences concerning the natural forms compared to that of philosophers?"

1. The position of form in modern science

The form in modern science loses its place in comparison with its earlier philosophical tradition. The underlying reasons and factors for this claim will be discussed later. To prove the claim of "change of the attitude of the modern sciences concerning the position of form" we will suffice to a few specific areas and perspectives:

1-1. IT field

Dozens of disciplines and related fields, including information technology engineering, information technology management, information security, e-commerce, are taught, and studied in various scientific and industrial communities.

Some, such as Tipler, argue that "Form" in English is equivalent to "form" and has the same root with "information". Tipler, therefore, believes that the word "information" is derived from the Aristotelian-Aquinasian concept of "form" (Russell, 1384, 557). He writes,

In the Aristotelian sense, the formal cause of an action is an abstract cause and abstract in the sense of being opposed with material and subjective causes. "For a computer, the program is the formal cause, while the material cause is the material properties from which the computer is made, and the subjective cause is the opening and closing of the electrical circuits (Russell, 2005, 557).

The above theory seeks to reduce the position of the form, which is a fundamental and actualizing factor in all kinds of natural beings, to words that have no relation to the place and the above-mentioned meaning in cyberspace conversations. It appears the aforementioned theorists have misused the form in order to utilize the accepted themes and ideas among intellectuals to make their theory rational.

1-2. Engineering sciences and mechanics

In the view of these sciences, the natural world is viewed and analyzed as mathematical knowledge, which will be discussed at the end of this article.

1-3. Experimental and biological sciences

The living being is, from the perspective of some of these theorists, a set of different organs that a unifying factories them together. This category Calles the "form" the unifying agent of the living being. Ritter, American zoologist, adopted this theory under the title of

"Organism" in the introduction of the living being. He recognized Aristotle as the founder and prominent representative of the theory of Organism (Beckner, 2006, 7/36).

From their perspective, the characteristics of an organ are: The ability to respond to stimuli, the ability to reproduce, grow, evolve and ability to stabilize within.

According to this idea, although the living organism is made up of organs that themselves are made up of inanimate components, those organs alone cannot create the life of the living being and require another factor called the Form.

But have these scientists looked the same as Aristotle?

In the view of empirical science, the living being is a set of different organs and systems that work together to achieve the desired purpose of the being. Hence, the mission of the form seems to have diminished from what the philosophers intended.

For, first, the responsibility of the form in this attitude is merely to connect the various components of this compound set, and to constitute the composition of the compound object rather than its actualization as seen in the competing attitude. Therefore, if we consider a creature without a form, according to the mechanistic view, it will be a set of separate components, and according to philosophers, the truth is not actual.

Secondly, if we look at the living being, the vegetative form in philosophy is introduced as the agent of vital effects such as growth, nutrition and reproduction, not merely the connector of the components. Thirdly, there is no difference between living and non-living in terms of the need of a compound being for the unifying agent, so the above explanation, which emphasizes the existence of form as the agent of unification in the living being, is also applicable to the non-living which this view does not tolerate.

With the decline and change of the position of form in the modern sciences, look at its rival, which is the self, has also undergone serious changes. The self as a non-material factor has been less discussed and its functions reduced to the level of material things (Barbour, 2005, 360).

Its immaterial abilities have been denied and its relation to the supernatural through revelation with material descriptions has been regarded similar to the experience of man or his sleep.

Another theory that can be argued based on the decline and rejection of the role and position of the form is Darwinism. One of the foundations of evolution theory is the principle of 'conversion of species'. According to this principle, some living beings change due to environmental factors or natural selection and evolve from one type to another. These evolved creatures have a greater chance of survival than unchanged ones. Darwin called this principle of protection of beneficial change and the survival of the fittest "natural choice" (Darwin, 2001, 177).

It is possible to introduce the principle of the conversion of species when the boundary between living beings and their distinguishing agent is removed, which means denying the role or status of the form that is the actualizing agent of the being.

2. Form in different philosophical schools

Form of each entity is all of it, and the essence of its existence and its unification. In fact, the form is a productive *Muhassil* and actual thing through which each object is made. This rule is well-known among philosophers that objectivity of an object is due to its form, not its matter.

An object does not accept another form, actuality, and perfection because of the actuality it has by its form. The form is how of the external being and for the *Tahassul* and integrity of the monster, and the very thing by which the monster becomes an actual independent being. MullaSadra says: The form of everything is the very existence of that thing, and the existence of everything is the very existence of all its essence; nevertheless, one should not imagine that to answer the question of (what's that?) he can speak of "being" (MullaSadra, 1981,5/300).

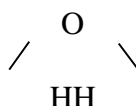
Existence of the form *SuratNu'iyeyin* philosophy is proved by the analysis of transformations and changing of objects. There are two modes in the conversion of water to steam, seed to plant, and so on: one is the actionmode of the body, which is analyzed as being qualified, and the other is the potentiality mode of body, which is the lack of the subsequent states. The actionmode is called form and the potentiality mode of body is matter.

Mashaiyan have considered the essence of the body to be composed of two substances, namely, the "matter" (monster) and the "form" in a way that each one has a separate essence on the outside, and together they form an actual plurality called the "body."

The *Ishraqi* philosophers acknowledge two modes of action and potentiality, but deny the essence of matter. They do not accept the composition of the body from matter and form, and recognize it as a simple issue in which the action and the potentiality come from two different directions. Sadr al-Mutallahin acknowledges the existence of matter and form in the body, but considers the combination of the two to be united; the body outside is a simple reality that is material in one sense and in the other sense is the form. The matter and the form exist together as one.

The matter and the form exist outside together as one. So MullaSadra's thinking differs from that of Sheikh Ishraq: one accepts the essence of the material and the other denies. His point of difference with ideas of *Mashaiyanis* his denial of the combination of matter and form ('Ubudiyat, "how to combine matter and form from the perspective of Sadr al-Mutallahin", 12). Of course, there are differences in explaining how these two are united (See: Khomeini, 2002, 1 / 250-252).

Among the evidences that can be adduced by looking at modern science to prove form is the accuracy in the constituent parts of elements and how they are put together. A water molecule (H_2O) is made up of two hydrogen atoms and one oxygen atom, but these components alone cannot make water, but when they arrange like the following, water is made.



If the hydrogen atoms are positioned on one side of the oxygen atom, (O – H – H), they do not form a water molecule, though the necessary components are present. So in addition to the constituents, another aspect is needed for the formation of the compound which can be defined under the role of form, because without this scheme we cannot imagine an action for this molecule. In fact, by saying this, we would like to express to the competitor who denies form that if the body is nothing more than its constituents, how can the above role be explained? In our opinion, one of the important roles of the form is to supply this essentiality, how do you explain it?

Needless to say, this expression is more used to prepare mind to accept the form rather than to be a decisive proof on it, since the role of the form in this attitude is limited to establish a connection between the various components of the composite set while the form is to actualize an object, and this expression merely seeks to express one of the tasks of the form that will, of course, be accomplished in the light of its actuality.

Based on the attitude of Transcendent theosophy, the following rules can be mentioned about the form:

- A. The composition of matter and form is unification.
- B. The objectivity of an object depends on its recent form.
- C. The image of the following-joining forms for the creation of a new form is numerical.
- D. The way of changing the images of objects under the substance motion is (dressed after wearing) and not (taken off and dressed).

2-1. Form and substance motion

Another axis of distinguishing Mulla Sadra's attitude from that of other philosophers is the substance motion. According to the provisions of this theory, nature and all natural objects are modernizing and flowing (Hassanzadeh Amoli, n.d., 8-9).

Substance motion holds that the substance of the natural object is constantly flowing, changing and renewing. From the point of view of Transcendent theosophy, the intention of the essence renewing and changing is not the nature of an object, but it is its being and how of its being.

According to martyr Motahari, everything that we consider to be constant in the world of nature is changing; nothing can be time-bound and truly constant, even though we find it constant.

There are many things that seem constant but actually changing; for example, when we look at the hand of clock, we think of it as a constant issue, but when we look at it an hour later, we see, for example, it goes from 3 to 4; this does not happen suddenly, but it is constantly moving, but our eyes are not able to feel its motion. That is, the eyes only see certain movements at a certain level (Motahari, 2008, 4/147).

MullaSadra believes that just as inaccuracies are clearly seen in the category of hows, so is the essence of the object. He introduces this movement in two directions: imperfection and perfection:

Substance motion is explained in terms of completeness and perfection according to the nature of the object and in the degree of imperfection is explained due to the negligence of Qasr or Qasror fault of culprit.

Substance motion in the pursuit of perfection is like the passing away of human Substance perfection from the embryo to realization of his reason, which no sound mind would not regard passing these levels depend on accidental affairs added to essence (whether temperament, quantity or status). Non-perfect substance motion is like the gradual transformation of water into steam, which is achieved by heating it (MullaSadra, 1981, 4/27).

Avicenna, who does not believe in the substance motion, sees the conversion of water into steam as created and corrupted (On Generation and Corruption). (Avicenna, 1996, 2/264). FakhrRazi criticizes it and says what is wrong if for such transformations the form of water remains and merely its quality changes (Fakhr Razi, 1984, 1/109).

Some believe that a moving object in the course of its substance motion in each moment diminishes, a new and more complete truth than previous one is replaced its place; however, the two issues of elimination and creation are interconnected, and given that the happened issue contains all perfections of the diminished one and adds to them, it is interpreted as unifying of a new perfection with the perfection contained in the omission (Ubodiyat, 2010, 1/329).

But in substance, it seems that the truth of the object, while retaining its former hierarchy, is taking a new rank. The continuity of this movement is such that one cannot imagine omission of a truth while a new form is created. The movement is sometimes like a line on the water. When we imagine a line on the water, it is a movement that has nothing to do with its before or after. The preceding explanation can be applied to this example.

The expansion and contraction of the balloon is another type of movement in which the relationship between the various past and present states cannot be denied. The second explanation implies that this type of the movement is in which the essence of the object is constantly being renewed.

2.2. Form and Self

Philosophers knew the objective form real face and the theory of ideas inherent form as each other completer; if the objective form is sensual, exemplary and rational, then the spiritual form which regulates human science is tangible, imaginative, and sensible. The homeland of the sensory form is the realm of nature and the homeland of the imaginative forms is the world of imagination, and finally the homeland of the intellectual form is the realm of reason, all three are related in a way that higher is over the lower.

MullaSadra considers the interior of the sensory forms of the natural world to be imaginative forms that are strength of those sensual forms and their ultimate. The inside and

truth of exemplary forms are the intellectual forms from which they come to life. He seems to have a one-to-one correspondence between these two types of objective and spiritual forms.

His reason regards the order and relationship among the tangible forms, imaginative forms and sensible forms that when the sense attains knowing a form, the imagination imagines it and its intellectual form is transmitted to the intellect. If there were no order and interplay between the objective worlds, the origins of these forms, and the objective forms themselves, this IDEAS transcendence between the THEORY OF IDEAS would never have occurred. He uses this model to explain the verse of human allegory (Maryam 17) (MullaSadra, 1302, 356).

In addition, philosophers have also used the word form in introducing the self, and this is because of the closeness of these two concepts to each other. Avicenna and Sadr al-Mutallahin Shirazi to define self refer to the three candidates of power, perfection and form, each of which in a way removes the veil from the self. The self is called form according to the substance in which it dissolves from which the plant or animal substance is collected and formed (Avicenna, 1984, 2/6; 1417, 15 and 2007, 26 and MullaSadra, 1981, 7/8 and Sabzevari, 1990, 5/17).

From the point of view of Transcendent theosophy or al-hikmat al-muta'aliyah, the emergence of the substance motion is not unique to the natural form, and the self itself is container for this movement, which has various consequences in various philosophical, theological, ethical, and so on areas. Philosophers consider paying attention to the form and its role in the truth of existence of any object as one of the essential prerequisites for proving the necessity of resurrection (Avicenna, 1382, 178; and MullaSadra, 1981, 1354; 1869, 383; 2002, 245, 1986, 595, 2002, 18 and 1981, 261).

In addition, death in the shadow of this substance motion of self could form in a new way of life (see: Hassanzadeh-Amoli, 2007, 56). In addition, the miracle and dignity of humans are to be able to control the flow of this movement in nature that the perfected selves find the power to do so (Javadi-Amoli, 2007, 2-3 / 235).

Now it should be researched what is the cause of stepping down of the form mission from that high status of the activating matter in philosophy, and in modern science, it was merely viewed as low as accidents?

3. The basics of the attitude change in modern sciences

Since Galileo (1564-1642), Descartes (1596-1650) and Newton (1642-1727) in the seventeenth century, with their scientific theories, made a dramatic change in the course of science, it would seem that if we were to analyze the cause of transformation in the modern sciences, we need to pay more attention to their works and theories.

Looking into the opinions of these scientists, we come across several evolutionary factors at the outset of the modern science project:

- A. Change in science methodology
- B. A mechanical look at the world of nature

C. The principle of backwardness

3-1. Change in the methodology of the sciences:

The methodology and research method of each science should be considered as one of the most fundamental issues to enter that science. Prior to the development of modern sciences, the dominant methodological approach of most sciences was teleological and, of course, based on a dogmatic worldview from church that did not let theorizing by the owners of science and thought and regarded any attempt to understand nature a kind of interfering God's Act. The owners of the church had controlled knowledge alongside power and severely condemned and punished theorizing contrary to their religious texts. Investigating this topic requires a separate article.

In the seventeenth century this trend evolved. Galileo, for example, turned to descriptive explanation rather than a teleological explanation of events and a consideration of the ultimate causes. He didn't ask, "Why do things fall?"; Rather, he asked, "How do they fall?" (Barbour, 2005, 31).

In fact, this change in his approach to the explanation of events was a kind of presentation of a new scientific method. His next step to obtain the equations and relationships governing the universe was to combine inductive and analogical methods, so after making a hypothesis, he tested the hypothesis and then matched the hypothesis with the results of experiments. If his theoretical conception or hypothesis did not match the result of the experiment, he would try to test another hypothesis so that he could finally discover the equations that represent the governing relationships in the universe.

By presenting this method of explaining the facts, which was a new combination of mathematical reasoning and empirical observation, (Barbour, 2005, 27), successes in new science were achieved, and the foundation for a new perspective on the introduction of nature and the world was laid.

Newton went on to do the same, supplemented it, and was able to present surprising theories in his own time. He was "the first who expressed the unification of mathematical and empirical methods in the clearest way, and since then, in all future discoveries of exact science this alliance has found the perfect example" (Burt, 1990, 2369).

This attitude was so advanced that science, which until then was one with philosophy, was separated from philosophy after Newton (Burt, 1990, 13).

Descartes continued in the same way. He introduced mathematics as the key to understanding nature and explained it as a mechanical device. In his view, all beings in the natural world, even animals, except for the human mind, are automated, complex, emotionless machines (Barbour, 2005, 33-34).

It is based on this view that Brett claims that the developers of the new science were all fascinated with mathematical research in nature and, as far as they could, abandoned metaphysics and, where they could not, made it a tool for further interference in mathematical conquest of nature (Brett, 1990, 304).

This method continued until it eventually dominated Positivist look on scientific community for a long time. Islamic methodology resolved this deficiency in a different way. Confirmation of this claim requires a separate article, but it is enough in this brief to say that Transcendent theosophy has not rejected the empirical method and in some positions has introduced it as the ultimate ruler. For example, MullaSadra points to the disagreement between the philosophers and Hokama in the formation of the first organ of a fetus and considers the view of anatomists- which they prove empirically - to be actually closer to rightness (MullaSadra, 1981, 143/8).

3-2. Mechanical look at nature:

Galileo's, Newton's, and Descartes' approaches, which have already mentioned, provided a good background for the presentation of the mechanical image of nature. Descartes emphasized on the machine being of creatures, plants, and animals. This attitude can only be explained by overlooking form.

In the rival's eyes, the form is considered as the object's actualizing agent and its distinguisher from other beings. He summed up his thinking about the important place of mathematics and geometry for Permian Mersenne:

My whole physics is nothing but geometry (Russell, 2005, 162).

Newton emphasizes on mechanics concerning the relevance of sciences, the role and status of knowledge. Unlike Descartes, geometry, in his view, is part of the general knowledge of mechanics that accurately introduces the measurement technique (Russell, 2005,162). But claim of this view did not suffice here, and post-Descartes theorists, mechanically and materialistically seeing the beings, seeing the world of nature in the frameof the formulas and thereby rejection of supernatural-side of matter were prepared and thus materialist view approached itszenith:

Diderot argued that all natural phenomena, both physical and mental, could be explained by moving matter. He emphasized that there was no difference between objects, plants, animals and even human in this rule, although he stated that he could not explain it then, but science would explain it in the future (Torrey, 2006, 3 / 73-74).

Comparing man and machine, his various activities with the lifeless being were established on this attitude and on these topics articles were written since the eighteenth century. "Man-machine" books by Lamtri and Churchland's "Matter and Consciousness" are the examples. Lamtriclaims that vital activity never derives from the intrinsic principle of matter or from the immaterial substance, but rather from the physical and functional structure of matter (Churchland, 2007, 158). This view denies both the function of the immaterialistic soul and the function of the materialistic form.

This attitude has continued in contemporary times by comparing humans and robots, mind and artificial intelligence, life and artificial life, chromosomes and machine gears (Schrödinger, 2001, 92). All and all of these attitudes are rooted in the philosophy of modern science, which Burtt believes:

The new metaphysical side of science is this: Fact and agency belong to the mathematical realm, the realm of material objects moving through time and place (Burt, 1990, 301).

The word "form" from the philosophical meaning of *Madresiyun* implies those mechanical effects of matter that is evaluator of a particular type of body (Burt, 1990, 169).

But what is the position of this attitude concerning a subject such as "form"? When first we are supposed to have solely mechanical-mathematical research look towards the world of creation; second, to regard the components of this universe as merely inanimate devices, we have no choice but to abandon issues which are beyond the reach of mathematical calculus and measurement. The "form" is of this type of affairs. This is why Robert Boyle, the great English chemist and physicist, suggested that the word "form" from (Scholastic) Madrasian's philosophical meaning implies those mechanical effects of matter that are price setter in a particular type of object (Burt, 1969, 169).

Modeling Descartes and other scholars before him, he continues the mechanical explanation of nature and reinforces the "method of empiricism", choosing the title "natural philosophy" for his philosophical system (Burt, 1969, 162).

If men of school have abandoned many of the attributes of the matter unexplained or have resorted to the form of unknown and inexplicable substance to explain them, my main purpose is to help you accept, through my experiences, that all of these attributes can be mechanically produced. By physical agents I mean those things which reveal their agency only through the mechanical effects of matter, namely, the motion, the size, the shape and the composition of the components (Burt, 1969, 166).

3-3. Principle of Reversalism

One of the principles of modern science that helps us to explain and describe the relations that govern the material world is the "originality of Reductionism". This principle, also known as "reversalism" and "the principle of reductionism", means that nature is reduced to less than the truth that it actually contains. For example, the reduction of nature to a set of mathematical equations can be pointed out, and that reality is nothing more than these equations.

This Reversalism principle is sometimes raised in the domain of epistemology and sometimes in the field of metaphysics. According to the principle of Epistemological Reductionism, all phenomena are ultimately explained by the laws of physics and chemistry, and according to the principle of metaphysical Reductionism, reality is made up of the smallest component –i.e. the moving substance.

The importance of this principle is insofar as some theorists have considered its role in shaping modern intellectual transformation central:

Since nature's Reductionism to a set of mathematical equations - assuming that there is nothing out of the human mind that cannot be reduced to

mathematics - has made progress, so the originality of naturalism has gone over a hundred years (Barbour, 2006, 62).

By the help of this principle, by denying the form that does not shrink under material effects so it as can not be formulated, it removes a major obstacle to converting nature into acceptable formulas, claiming that nature has no other component than what is considered by these formulas.

Galileo, who, at his initiative, physics was separated from philosophy at the time (Drake, 2006, 10/4) introduced nature as "moving particles" or making up from "moving matter". Although this theory was a long way away from atomic theory of the nineteenth-century, compared with previous theories, it was novel. In order to formulate the relations governing nature, he focused on two categories of mass and velocity - which were not so important until then. He says:

I can't believe that there is anything but size, shape or motion (slow or sharp) in outside objects that can give us a sense of taste or sound or smell. And I can really say that if there is no ear or tongue or nose, the number, shape and movement of the objects will remain the same, but they will have no taste, sound or smell ... Also, in my opinion, heat is also imaginative (Barbour, 2005, 33).

One of the principles of Descartes' philosophy concerning knowing the world is that nature can be reduced to mechanical principles, that is, to the matter on which motion is based, and to the causes that through force can cause that object to move (Russell, 2005, 181).

Newton's place in the formulation of modern sciences, especially by the presentation of the three laws of motion of objects, has become remarkable, as they are known as the foundations of modern technology. Burt considers his transformative role to be superior to earlier theorists such as Galileo, Descartes, and Boyle (Burt, 1964, 204).

Newton needed a reversal principle in explaining his different laws. When accelerated motion with various parameters such as air resistance and friction cannot be theorized and formulated, some parameters must be eliminated to obtain a formula with realistic conditions gradually. One must first identify the unidirectional motion then accelerated motion with constant acceleration, then incorporate the variable acceleration and air resistance into the formula, which was channelized by the principle of reversalism.

Hence, without explaining the nature of gravity, he studied the laws of objects affected by gravity (Barbour, 2005, 42). His laws of motion and gravitation - which dominate and influence the smallest particle to the farthest planet - have contributed greatly to the advancement of science and the explanation of the order of the universe, but the exclusive view of nature in these matters, paved the way for the principle of Reversalism in nature.

This principle provides a good basis for explaining the relationships governing the beings of the material world, provided that we do not neglect the role of the omitted parameters when using it. If we omit the role and position of the form in order to explain a particular relationship or function, it should not cause we deny it from basis. It should not be

overlooked, therefore, that the basis of Western scientific and technological advances and developments in the denial of the form is a claim which itself requires a rational reason of its positive evidence.

Without denying the form, it would have been possible for human beings to succeed. Is the design and development of information technology knowledge related to acceptance or denial of form? The development of empirical and biological knowledge is not related to form-connection among different organs. Therefore, the advancements of modern science should not be the bandit of accuracy of its basis.

The present paper does not, therefore, seek to deny the nodes and the successes of the theories proposed in modern science, but rather to evaluate type of the attitude and claim of reduced nature. Without this reduction and by acceptance of the position and role of the form, one can also benefit from the theories and hypothesis of these sciences as well as solving the scientific challenges and problems surrounding them.

The important drawback that theorists of this field while formulating the reversalism came into was that it offers the assumption of simplifying the formula of the reduced object, not its principle! It is as if humanity, after assuming reduction, has transmitted the order of reduction to the principle.

One of the criticisms to Western theorists' attitudes is that the multiplicity of theories about a truth, in the view of any science or discipline in a way not accepted by others, undermines its accuracy. It would then be defensible to speculate that theorists, by presenting different theories about the form, were more interested in solving their own problem than in accurately identifying and introducing nature. Because these theories cannot be summarized under one general heading, what is the relationship of form reduced to information to the body organs' unifying factor? In the meantime, they offered no reason for their opinion, and mostly, with incomplete analysis, tried to make their point.

Conclusion

The 'form', which in classical philosophy was seen as the substance actualizing matter and the truth of the principle of the nature of an object, is diminished in the philosophy of new science. This attitude is shaped by a radical and dramatic change in methodology, epistemology, and ontology.

Almost simultaneously with the emergence of fundamental changes in attitude towards form in the West, by establishing the cornerstone of the originality of transformation and its reductionism, in Eastern Islamic philosophy, a different transformation took place by Mulla Sadra's theorizing. In the West, it has been attempted to take a step towards disposal of its status in nature by separating various scientific methods and the exclusive use of one. But in the East, by combining methods and using each one in its proper place in the opposite, a step was taken to prove and reinforce its presence. The first with the theory of reversalism and the other with the theories of the unifying composition of matter, form and the substance motion.

References

- Avicenna, H. (1956). *Sharh al-Isharat & al-Tanbihat*, explained by Nasir al-Din Tusi, Publishing of Balagha.
- Avicenna, H. (1962). *A Sacrificial Message in The Order of the Resurrected*, Research by H. Asi, Shams Tabrizi Pub.
- Avicenna, H. (1984). *Al-Shifa (Tabi'iyat)*, Maktabat Ayatullah al-Mar'shi.
- Avicenna, H. (1996). *Al-Nafs min Kitab al-Shafa*, Researched by A. Hassanzadeh-Amoli, Islamic Propaganda Office.
- Avicenna, H. (2007). *Risalah*, Introduction and Research by F. Al-Ahwani, Dar Biblion.
- Barbour, I. (2005). *Science and Religion*, translated by B. Khoramshahi, University Publications Center.
- Beckner, M. O. (2006). Organismic Biology, *Encyclopedia of Philosophy*, Vol. 7, pp. 36-39, Farmington Hills, Thomson Gale.
- Burt, E. (1990). *Mabadi Maba'd al-Tabi'ee 'Ulum Novin*, translated by A. Soroush, Ilmi & Farhangi Pub.
- Churchland, P. (2007). *Matter and Consciousness; An Introduction to Today's Philosophy of Mind*, Translated by A. Gholami, Markaz Pub.
- Darwin, C. (2001). *Mansha' Anva'*, Zarrin & Negarestan Publications.
- Drake, S. (2006). Galileo Galilei, in *Encyclopedia of Philosophy*, Vol. 4, pp.9-13, Farmington Hills, Thomson Gale.
- Hassanzadeh-Amoli, H. (2002). *One Thousand and One Words*, 3rd edition, Boustan-e Ketab.
- Hassanzadeh-Amoli, H. (2007). *Ganjineh Gohar Ravan*, Tuba Publications.
- Hassanzadeh-Amoli, H. (N.D.). *A Tour in Motion*, Raja Publivation Center.
- Javadi-Amoli, A. (2005). *Rahiq Makhtom*, Researched by H. Parsaniya, 3rd edition, Asra Pub.
- Mosavi-Khomeini, R. (2002). *The Philosophy of Seyyed 'Abdul-Ghani Ardebili*, Institute for Compilation and Publication of Imam Khomeini's Works (PBUH).
- Mulla-Sadra, M. (1923). *Majmoe al-Rasail al-Tesa*.
- Mulla-Sadra, M. (1975). *Al-Mabda' val Ma'ad*, edited by S. J. Ashtiyani, Wisdom and Philosophy Association.
- Mulla-Sadra, M. (1981). *Al-Hikmah al-Muta'aliyah fi Asfar Al-Arba'a al-'Aqliyah. (known as Asfar)*, Vol. 3. Dar Al-Ahya' Al-Turath al-'Arabi.
- Mulla-Sadra, M. (1982). *Al-'Arshiyah*, edited by G. H. Ahani, Mola Pub.
- Mulla-Sadra, M. (1983). *Mafatih al-Ghayb*, introduction and edited by M. Khajavi, Cultural Researches Institute.
- Mulla-Sadra, M. (2002). *Zad al-Mosafer*, Interpreted by S. J. Ashtiyani, Islamic Propaganda Office.
- Mulla-Sadra, M. (2006). *Collection of Philosophical Treatises by Sadr al-Mutaalehin*, Researched and edited by H. Naji-Isfahani, Hikmat Pub.
- Mutahhari, M. (2008). *Collection of Works*, Vol. 12, Sadra.
- Rasel, R. (2005). *Physics, Philosophy and Theology*, translated by H. Hemmati, Islamic Thought and Cultural Institute.
- Razi, F. (1984). *Sharh al-Fakhr al-Razi 'Ala Al-Isharat (Sharhi al-Isharat)*, Maktabat Ayatullah al-Mar'shi.
- Sabzevari, M. (1990). *Sharh al-Mandhumah*, Vol. 1, edited and margined by A. Hassanzadeh Amoli, Nashr-e Nab.
- Shrodiger, E. (2001). *What is The Life?* translated by M. Sarboulouki, Markaz Publications.
- Torrey, N. L. (2006). Diderot, Denis, in *Encyclopedia of philosophy*, Vol. 3, pp. 71-78, Farmington Hills, Thomson Gale.
- Ubudiyat, A. & Rezai, M. (2008). The quality of the composition of matter and form in the eyes of Sadrul Matalhin, *Ma`rifat Falsafi*, 7(25), 11-35.
- Ubudiyat, A. (2009). *Introduction to Sadra's System of Wisdom*, Imam Khomeini Educational and Research Institute and SAMT.