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Logical, Philosophical and Theological Applications of Shahid Sadr's Theory of Knowledge

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Abstract

Shahid Seyed Mohammad Baqer Sadr is a Muslim theoretician who along with various theories in different sciences has invented a new method in epistemology. He found Aristotelian epistemic method faced with serious challenges and by adding "essential method" and validating inductive reason, broke the restriction of certain data in "rational self-evident truths" and "result of proof" and described the "result of inductive reason" as the third class of certainties and claimed that a major part of human knowledge is acquired in this way. Shahid Sadr did not leave his own new method in theoretical level and applied it as regards various problems of some sciences. In this way, he succeeded to provide a well-reasoned answer for the significant questions that had been left unanswered or considered as self-evident. The current article by collecting and explaining these applications in the sciences of logic, philosophy, and theology studies, investigates and analyzes them.

Keywords: Shahid Sadr; Essential Logic; Monotheism; Prophecy; Sophistry

I. Introduction:

Shahid Mohammad Baqer Sadr is one of the contemporary Islamic thinkers and theoreticians and the scientific strength of his works has been considered in scientific circles. His innovative theories which have their origin in a creative mind have started new movements in various branches of science and opened new horizons before the researchers insofar as by the passage of time his ideas, theories and views find more proponents.

One of the theories of Shahid Sadr which has been the building block of other branches of knowledge and its effects are magnificent in sciences and various fields is the new path that he has opened in epistemology and grounded his own epistemic system based on it. He was first a proponent of Aristotelian epistemic approach and he even authored his work entitled *Our Philosophy* based on those foundations which were accepted by the majority of philosophers. However, after a while he became suspicious of these foundations and started to review them. The starting point of these doubts was Aristotle's insistence on the restriction of certainties to "self-evident truths" and "result of demonstrative syllogism" and his belief that all human knowledge can be acquired through demonstration (logical

reasoning). There are two objections of this epistemic method. The first objection is concerned with demonstration. Contrary to Aristotle's view, demonstrative syllogism can never lead us to new knowledge rather it just details what is already known! This syllogism seeks to reach a new piece of knowledge via certain premises while this never happens, because knowledge of result always exists inside the knowledge of the major premise and the only thing that a demonstration does is detailing the knowledge that is hidden in the major premise and helping the man to understand it. Demonstration only helps us to be reminded of what we already know. But the second objection that Shahid Sadr considers it as the main reason of his disappointment of Aristotle's theory was the objection that Shia traditionalists had raised against the fundamentalists: why Aristotelian method which claims to protect the thought against error and for many years was used in rational sciences never succeeded to overcome the differences and even despite its existence the differences have grown larger?! (Shahroodi, 2013, 4: 126-130). These objections caused Shahid Sadr to leave this method and for a while to be a proponent of "theory of taste" (Sadr, 2011, 21: 158).

The theory of taste suggested that the reason of existing differences in sciences is that human beings are different in their methods of thinking as well as their individual characteristics and it is this difference that gives rise to the divisions. To put it otherwise, according to this theory, individual characteristics and personal mentalities are effective in intellectual conclusions. Shahid Sadr calls the special characteristics of every person "his taste". The theory of taste was Shahid Sadr's chosen epistemic theory for a while. However, this theory could not convince his searching mind and after a while casted a number of doubts regarding the theory of taste and couldn't establish it (Sadr, 2011, 21: 160). Finally, the ideas of the epistemology of this great thinker reached a point where he managed to establish a new monument based on secure foundations and offered a new and innovative epistemic theory. He called this new theory "essential method" and he proposed this method as an alternative for Aristotle's rational method and western philosophers' empirical method and explained it in the valuable work entitled *Logical Foundations of Induction*.

Shahid Sadr believed that most of human knowledge is originated from this method and he did not leave it to remain in the level of theory and showed the functions of essential theory in some scientific issues. Accordingly, he succeeded to provide answers for many logical, philosophical and theological questions and in those cases where the answer was limited to rational evidence he gave more certain reason.

In current article, the author seeks to provide a short explanation of this theory and after it discuss the details of its applications and various functions in logic, philosophy, and theology. The author continues his discussion with the objections raised against these applications and evaluates them and shows how much this theory can be helpful in solving the scientific problems.

II- Explanation of Essential Method of Shahid Sadr

Empiricists believe that the only way of acquisition of knowledge is sensory perception and experience and there is no rational and a priori² knowledge at all. On the other side stand the Aristotelian rationalists who insist on the existence of rational and a priori knowledge and believe that certainties are of two types: self-evident truths and conclusion of demonstration.

However, both schools have encountered with a fundamental question called "problem of induction": how does certainty result from inductive reason? The conclusion of an induction is general,

Every man is mortal,

Then Socrates is mortal;

If we understand the major premise of this syllogism, i.e. every man is mortal, we surely know also that Socrates is mortal as a man and there is no need for demonstration of this evident truth. Rather by this syllogism we are reminded of the details.

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¹ For example take this syllogism into consideration:

Socrates is a man,

² A priori knowledge refers to the knowledge which is independent from sensation and experience.

how can we reach a general certainty via observations and experiments of particular and specific samples?

Empiricists and western philosophers have offered three answers to this question: theory of certainty (Copleston, 8: 83-94), theory of preference or suspicion (Russell, 1978: 90) and theory of mental habit (Copleston, 5: 281); of course, there are some scholars who have not found any answer for the question and considered the method of induction invalid (Popper, 2000, First Chapter).

In Aristotelian rational method, the so called rule of *chance* is used for solving this problem and justification of the certainty resulted from induction the content of which is as follows: "the chance is not repeated". The rationalists put this rule in the major premise of a demonstrative syllogism whose minor premise represents the results of induction conclude a general proposition (Ibn Sina, Borhane Shifa, 315-319).³ Of course, certainty of this conclusion depends on the certainty of its major premise which is accepted by the rationalists but Shahid Sadr does not accept it (Sadr, 2014, 2: 63).

Anyway, Shahid Sadr due to the objections that were raised against these answers decided to choose a third path:

According to Shahid Sadr, what happens in a demonstrative syllogism is the birth of a proposition from another proposition among which there is the concomitance relationship insofar as the endorsement of the premises is not possible without accepting the conclusion otherwise we would be bogged down in a paradox. He calls this reproduction or reasoning, a thematic reproduction and though he considers the conclusion resulted from it to be part of the certainties he does not consider it leading to a new knowledge. On the other hand, he speaks of essential reproduction which indeed refers to the birth of a judgment and knowledge from another judgment and knowledge (not the birth of a proposition from another proposition) without being any concomitance around due to which the absence of second judgment would lead to contradiction. Shahid Sadr propounds essential reproduction in the stages of inductive reason and argues that in a stage of induction a certain conclusion is born from a suspicious knowledge by chance and accordingly certainties are classified in the following three classes:

- A. Self-evident truths (primary data);
- B. Conclusion of demonstrative syllogism (thematic reproduction of secondary data from primary data);
- C. Conclusion of inductive reason (essential reproduction of secondary data from the primary data);

However, we need to provide further explanation in order to make it clear how inductive reason produces certainty. As we mentioned earlier, certainty is the product of an essential reproduction. Essential reproduction occurs when a thematic reproduction has already taken form through probability calculation. To put it otherwise, in induction we have to pass through two stages in order to reach certainty: first through thematic reproduction and rational inference we increase the probability of the induction's conclusion⁴ in view of the observations and repetition of experiments so that we finally reach a strong speculative judgment. Then, in the stage of essential reproduction from this knowledge and judgment the probability of its truth has increased based on probability calculation, certainty is born of the conclusion which is a universal and general proposition (Sadr, 2014, 2: 156-168).

Shahid Sadr explains the first stage through discussion of probability calculation. Arithmetic of probabilities is a branch of mathematics that deals with the calculation of the probability of occurrence of a phenomenon. Probability of the occurrence of a phenomenon is the acquired through division of the number of desirable states into all possible states. For example, when we through a coin up to the air the

³ As we mentioned earlier, rationalists consider syllogism as the only path that leads us to the production of knowledge.

⁴ This refers to a universal proposition that is acquired through induction. For example, by numerous experiments it is concluded that water boils in 100 degrees.

probability of its being the head is 1/2 because the number of possible states is 2 (head and tail) and the desirable state (head) is one. If we toss up the coin twice the probability of its being the head is 1/4 because the probability of its being the head in the first toss is 1/2 and in the second time it is again 1/2. Then, to acquire the probability of twice tossing we should multiply the two probabilities:⁵

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

And in the same way if we toss it three times the probability of the result's being the head is 1/8.

Shahid Sadr has introduced the discussion of probabilities calculation from mathematics into epistemology and struggled to make use of it for justification of certainty of induction. To explain his own theory with all details, Sadr has turned to the discussion of probability calculation and presented a new theory of probability the explanation of which is beyond the scope of current article (Cf. Sadr, 2014: 173-296).

Essential theory was shortly explained but we need to add a point to complete the explanations to the effect that the certainty resulted from inductive reason is not a logical certainty! Certainty from the point of view of Shahid Sadr is of three types (Sadr, 2014, 2: 410-416):

- 1- Logical certainty: A certainty that is associated with the certainty of the impossibility of its negation. In other words, logical certainty is composed of two certainties: certainty of a proposition plus the certainty of the impossibility of the former proposition's negation.
- 2- Essential certainty: certainty of a proposition without thinking of the probability of its contrary but there is no necessity for the impossibility of the negation regardless of this certainty's being justified or unjustified.
- 3- Thematic certainty: this is a subcategory of essential certainty which can be justified by external evidence. To explain this we can argue that our certainty of a proposition is of two aspects. One aspect belongs to certainty and the other is the degree of attestation. A proposition that is certain has to be evaluated based on external realities but degree of attestation is a mental state that should be sought for inside. Now if this degree of attestation is in line with those external realities this certainty is a justified certainty. For example, if someone tosses the coin and due to the dream he had last night is sure that it will be the head and by chance the result turns to be the head in this case his certainty is a non-thematic essential certainty because although the proposition involved in the judgment is correspondent with the reality his degree of attestation is not compatible with the external reality because the external evidence suggest the probabilities for the head and tail are even. Then, there is no justification to think that it will be the head.

Shahid Sadr contends that the certainty resulted from essential reproduction in the inductive reason is a thematic certainty and it is this thematic certainty that is desirable in the epistemic system. The reason for this certainty's being a thematic certainty is that this certainty is a result of suspicious judgment the probability of its contrary is insignificant based on the principles of probability calculation and has been eliminated from the horizon of mind. Probability calculation is based on reality and the certainty that is born of it is not compatible with the external reality. As a result, the degree of this certainty is compatible with the degree that the external reality determines and then it is a justified certainty. The conclusion is that Shahid Sadr's essential method besides giving value to induction, which had a lesser status in Aristotelian method as compared to demonstration, promotes it as the only way that would lead us to the production of knowledge. Now we have acquired a notion of this theory we turn to the study of applications of it in three sciences of logic, theology and philosophy.

⁵ For further information cf. the probability calculation in mathematics.

III. Logical Applications of Shahid Sadr's Theory of Knowledge

The first logical achievement of Shahid Sadr's theory can be seen in the types of self-evident truths. Logicians believe that propositions are divided into two types of self-evident and theoretical. The self-evident propositions are the foundations of human knowledge which are not born of other propositions contrary to theoretical propositions which are born from other propositions via analogy, induction or demonstrative syllogism. No error would happen in self-evident propositions. In other words, if external factors do not influence the man, he would never face any error in these propositions. These propositions are restricted to the following six types:

- 1- Axioms: Those propositions which are essentially attested by reason. In other words, conceiving the subject and predicate is enough for their attestation.
- 2- Innate data: Those propositions that reason attests by means of a syllogism which is a priori in the sense that we have it in our mind when we are born.
- 3- Sensibilia (observations): Those propositions that are achieved by man through sensory perception and of course this sense includes both the external and false senses.
- 4- Data acquired by transmission: Those propositions that create certainty and confidence in man via the traditions quoted by the people who are not estimated to have colluded.
- 5- Conjectures: Those propositions that are attested by man via conjectures.
- 6- Experiences: Propositions that are acquired via repetition of sensory perception.

According to Shahid Sadr, only the axioms and innate data are considered to be a priori and self-evident propositions. Observations, data acquired through transmission, experiences and conjectures are not self-evident and in each one of the aforementioned four classes of propositions, certainty is acquired via probability calculation. These quadruple propositions are themselves divided into two general classes which we discuss them and the reason of their not being self-evident:

1- Experiences, Conjectures and Data Acquired by Transmission:

Shahid Sadr considers none of these triple propositions as self-evident and believes that certainty of these three propositions is born by essential method. He contends that in experience, conjecture or transmission when we acquire knowledge of a series of sensibilia and see the repetition of a phenomenon the probability of its being by chance based on the probability calculation is low. We explain this point by one example: suppose that 10 people bring news for me. The probability of first person's bringing the news A from among the news A, B, C and D, $\frac{1}{4}$ and the same probability as to the second person is $\frac{1}{16}$

$$\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$$

This probability for the third person is $\frac{1}{64}$:

$$\frac{1}{64} = \frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$$

By the increase of the number of people the probability of repetition of the news becomes lesser.

By the increase of the number of observations and more repetitions, this probability continues its declining procedure to the point where the probability is so low that it disappears from the horizon of the soul. Similarly, following the fall of probability of chance, the probability of truth of universal

proposition of induction, which is the empirical proposition or conjecture or transmission, rises and a strong suspicion is acquired of it. Finally, all probabilities come together and strengthen the suspicion and the certainty of the inductive proposition is born. It is in this way that we become certain of these propositions otherwise mere certainty of a series of observations and sensibilia cannot serve as a reason for attestation of empirical, conjectural or transmitted propositions. This is the justification that Shahid Sadr offers of the transmitted propositions, conjectures and experiences and in this way puts them outside the circle of self-evident truths.

On the other hand, Aristotelian logic answers to the problem of induction by noting that these propositions are the result of a demonstrative syllogism whose minor premise is composed of observed sensibilia while its major premise is the principle of chance which is self-evident by the logicians. Then, considering experiences, conjectures and transmissions as self-evident is due to the evidential nature of the principle of chance. The content of principle of chance is that "the event by chance is not repeated". Of course, chance does not imply that an event lacks any cause because we do not have a contingent being without cause rather Aristotle and his followers mean that two beings with distinct causes occur at the same time by chance. In other words, they are referring to relative chance not the absolute chance (Sadr, 2014, 2: 480).

Shahid Sar does not accept this justification. He starts his objection by one question: what do you mean by the principle of chance? Then he proposes two implications for the principle:

1- "Repetition of the chance based event is essentially impossible according to reason".

It is needless to say that this proposition is not a self-evident proposition and our reason does not consider the repetition of a chance based event impossible as such.

2- "The repetition of the chance based even is impossible in view of its occurrence and does not occur in the outside world".

In other words, repetition of the chance based event is of essential contingency but such thing does not happen in the world where we live. Even in this case the principle of chance is not self-evident and a priori because a priori truths are always necessary and if our reason understands the contingency of something how could it deny its occurrence without taking advantage of sensory perception and experience?! (Sadr, 2014, 2: 65-66).

2- Sensibilia:

Essential logic believes that knowledge sensory propositions also takes form based on probability calculation and inductive reason. We will discuss its mechanism in our discussion of the demonstration of reality in the chapter devoted to the philosophical applications of this theory.

At the end of this section, it requires to be noted that Shahid Sadr believes that inductive reason is valid in the field of a priori and innate data and he contends that by probability calculation and essential reproduction we can argue for a priori and innate propositions. However, he does not deny the apriority of this type of knowledge and contends that if there was no inductive reason we still could have a priori rational knowledge of these propositions. Of course, we need to know that he excludes the principle of non-contradiction as well as the self-evident principles of induction and presuppositions of theory of probability and he does not consider these self-evident truths demonstrable based on the inductive reason (Sadr, 2014, 2: 537-540).

Evaluation of Logical Applications of Essential Method:

Having accepted the essential theory of Shahid Sadr we can apply this theory in logic and explain numerous self-evident truths with this method. Nevertheless, the objection that can be raised in this context is that this application cannot reduce the number of self-evident truths because from the point of view of Aristotelian logic, a self-evident proposition is a proposition that is not born of other propositions instead of being in need of no mediation for being certain. It seems that Shahid Sadr has thought that a

self-evident proposition is a proposition that we acquire knowledge of it without any mediation. He has reduced the number of self-evident truths by discussing induction and essential reproduction as the mediator of certainty of some of the self-evident truths. However, this is a mistake. The logicians have noticed that in self-evident truths the mere perception of subject and predicate is not sufficient for attestation and we must include another element too. In other words, if reason does not need any external factor for attestation of a proposition it is one of the a priori truths. But if it needs another factor it can be considered as part of the self-evident truths in one of the following triple states:

First state: there is a factor which assists the reason, e.g. in observations the reason attests the propositions by the help of sensation.

Second state: this factor is one of the foundations of the proposition which is born from the heart of the aforementioned foundations. In this case if it is one of the necessary foundations of the proposition it will be one of the innate ideas. However, if it is not one of the foundations but it is easily acquired it will be one of the conjectures. If it is not easily acquired it will not be part of the self-evident truths.

Third state: this factor is also assisting the reason and at the same time constitutes one of its foundations. If it is "hearing the traditions" that assists the reason that proposition will be one of the transmitted propositions and if it is "repetition of observations" that helps the reason it will be one of the experiential. In both cases since this factor constitutes a hidden syllogism along with the chance principle it is one of the foundations of the proposition (Ibn Sina, 2015, 1: 212).

If the logicians consider the other five classes plus axioms as the subcategories of self-evident truths their reason for this action lies in their belief that the self-evident is a proposition that needs foundations and these foundations are not easily achieved and need thinking. In other words, a proposition which is essentially needless of expression and presentation of reason and as such no one asks for it any argument rather by few considerations the certainty is reached it is a self-evident proposition (Mozaffar, 2006: 326).

Having said these, if the certainty of these propositions is acquired from probability calculation and essential reproduction no objection can still be raised against their being self-evident because the definition of a self-evident truth is still correct of them and only the essential method has changed the effective factor in the creation of certainty.

However, this criticism seems to be irrelevant as regards Shahid Sadr's theory because he has substantial differences with the logicians. He considers induction (not demonstration) as the only method of knowledge production and contends that wherever a new piece of knowledge has been discovered by man it has been through inductive reason and essential reproduction. It is needless to say that inductive reason can be hidden and manifest or innate and non-innate. It is not so that an induction requires thinking and the other does not. If a proposition is acquired via induction it is not a priori and part of the self-evident truths. Contrary to demonstrative syllogism that is sometimes hidden and some other time manifest and this can be the origin of the difference between the certainties. Experiences, conjectures, transmissions and innate truths due to their inclusion of hidden syllogism are considered by logicians to be self-evident. Shahid Sadr accepts this difference too and considers the innate propositions as part of the self-evident truths. However, as to the non-self-evident truths there is no demonstrative syllogism at all rather it is induction that prevails. Due to the existence of induction there remains no occasion for considering them as self-evident truths. To state the matter differently, in essential logic, self-evident propositions are a priori propositions. Then, experiences, conjectures, transmission and sensibilia lie outside of the circle of self-evident propositions due to their not being a priori.

IV. Philosophical Applications of Shahid Sadr's Theory of Knowledge

1- Demonstration of External Reality

Philosophy begins with one presupposition, i.e. there is a reality. Idealists have refuted this proposition. On the other hand, realist philosophers consider it as one of the self-evident truths that does not need to be proven (Tabatabaei, 2008: 35). Though Shahid Sadr does not accept idealism, he does not

side by the realists either in taking the external reality as part of the self-evident truths (Sadr, 2014, 2: 528-529).

Shahid Sadr considers the demonstration of the existence of sensibilia in the outside world sufficient for denying the claim of idealism. To this end he takes advantage of inductive reason as follows:

First Step: In sensory perception the sensible form comes to the mind and after the end of this perception that form is annihilated. If there is a reality outside our existence it is less probable that with the repetition of that sensory perception the same sensible form comes to mind again. In other words, it is less probable that we would be able to see the chance based repetition of the sensible form by denying the reality. The second form can be of different structure; for example, if the first form has been the form of a table the second form can be a tree or a book or a carpet or ...! Every time that we cut the perception and resume it and again the same form comes to our mind the probability of its being by chance is lower. Thus, this probability becomes so slim in our mind that we become certain that this conditional proposition is true: "If there is no external reality, the sensible form is not repeated".

Second Step: In this step, we demonstrate that if there is an external reality the probability of repetition of the sensible is not low at all.

To put it otherwise, when we have an external reality the latter is a shared element of our all perception. Despite this shared element, there is still high potentiality for repetition. Then, probability of repetition will be high because we have two states, i.e. probability of that share element and non-

probability of it; then, this state is equally contingent as compared to all possible states: ²

Third Step: When we take the repetition of observations into account and see that sensible form is the same like the previous times the consequent is demonstrated with the conditional of the first step because the negation of consequent requires the negation of premises and the negation of premise implies the demonstration of external reality.

The evidence for this application of Shahid Sadr can be found in some works of other philosophers. For example, Tabatabaei in the beginning of *Nihayat Al Hikmah* starts his discussion with reminding the audience of the existence of himself and objects. Perhaps for those readers who are familiar with refusal of Allama in this book from discussing the details, such a long introduction appears strange for beginning the philosophy. However, the truth is that until the question of "is there any reality?" is not answered engaging in philosophy is meaningless. Then, Allama struggles to find an answer for this philosophical presupposition. The path that Allama shows to the readers of the book is the acquisition of certainty of the existence of reality via contemplation of oneself, surrounding world and repetition of observations and sensibilia. Allama contends that if someone embarks upon this path he will certainly reach certainty though he would say that the certainty has not been reached (Tabatabaei, 2016: 7-9). You see that this answer of Allama to the idealist objection is exactly the same path that is adopted by Shahid Sadr and of course he has succeeded to demonstrate it through rational reasons.

2- Demonstration of Knowledge of the External World

In the discussion of mental existence the philosophers take for granted the knowledge of external world and argue that the correspondence of the external world and with the mind is among the axioms. On the other hand, a group of sophists who deny the knowledge of the outside world have casted serious doubts of this correspondence (Tabatabaei, 2016, 1: 62 and 2: 184).

Shahid Sadr denies the Sophist's claim and the reason of the philosopher and proceeds to demonstrate the possibility of knowledge of external world via inductive reason (Sadr, 2014, 2: 530).

In previous section, we demonstrated the existence of external reality. Then we know that the objects with which we are encountered have a form. Now we argue that:

First Step: "If we understand the totality of what we are encountered with and we are not understand what with which we are not encountered, then our mental form will be correspondent with it". This is a conditional proposition which we are certain of its truth because the truth of a conditional proposition is not contingent upon the realization of the condition rather there should be a true concomitance.

Second Step: Affirmation of the premise is resulted in the affirmation of the consequent, then if the condition in this conditional proposition is demonstrated, the conclusion will be that our mental form is correspondent with the reality. However, if the condition is not demonstrated every form may come to our mind. Then, it is enough to prove that this condition is attested. We do this by inductive reason.

Third Step: If when we perceive the external world there is no correspondence between the reality and perceived form, this can have two origins: either we have perceived just part of the reality or what we have perceived has nothing to do with the outside world.

Fourth Step: When an object appears before us, for example, and we see it a form comes to our mind and when we turn our back to it the form disappears. There are two probabilities: we may have seen it correctly or not. We repeat this action again and every time that we are encountered with the object the same form comes to our mind and in this way the probability of correct seeing is strengthened. By the increase of repetitions this probability rises to the point where all of a sudden the certainty to correct seeing is born. When we become certain of correct seeing this means that we have recognized that we see whatever with which we are encountered and we do not see what we are not ecountered with. This certainty is in the sense of certainty of the realization of the condition in the above conditional proposition.

Fifth Step: With the realization of the condition, the conditioned also becomes realized, then the mental form is correspondent with the reality.

Then, correspondence of reality and mind is demonstrated. Shahid Sadr propounds another issue which is related to this discussion, i.e. the issue of similarity between objects. How could we consider the certainty of similarity of cats justified? We cannot consider the correspondence between reality and mental form to be sufficient for demonstration of similarity between objects because it is probable that our sensory system changes after perceiving the first object. Shahid Sadr again applied his method and refutes the probability of change in our perceptual system based on the probability calculation (Sadr, 2014, 2: 534). This point is important because in the next issue we want to infer the necessary relationship between every A and B based on the existence of a concomitance between an A and a B.

3- Causal Relationship

The existence of necessity between the cause and effect is a self-evident truth in the rationalism but some thinkers have challenged this necessity (Copleston, 5: 295-305). According to Shahid Sadr, although this proposition is one of the self-evident a priori propositions, we can still demonstrate it by means of inductive reason (Sadr, 2014, 2: 143-150):

First Step: Suppose we have two phenomena of A and B and we suppose that in our various observations we have recognized the concomitance of A and B.

Second Step: We have two hypotheses:

- I- This concomitance is by chance;
- II- There is causal relationship (necessity) between these two or a third entity called C has a causal relationship with both and these two are its effects.

Third Step: By the increase of number of experiments and observations of the concomitance in each case the probability of the randomness of this concomitance becomes low; because each one of the

A and B can probably exist in various times and lack of concomitance can have numerous states and as a result the probability of occurrence of this specific coincidental state (concomitance) is very low among various states.

Fourth Step: By the increase of the observations and repetition of concomitance of these two the probability of its being by chance continuously becomes lower and finally in the stage of essential reproduction the certainty of the falsity of the first hypothesis is achieved. However, given the probability of the second hypothesis the probability is not low then this hypothesis is proven and we conclude the existence of a causal relationship and necessity between the objects.

Evaluation of Philosophical Application of Essential Method

Shahid Sadr by the assistance of the essential method succeeded to explain the way that certainty is achieved in three philosophical issues. However, the objection that some scholars have raised against the essential theory (Soroush, 1987: 458-460) shows itself in its applications. The objection is that Shahid Sadr had been focused on judgment and certainty and all his efforts were supposed to justify the way that certainty is achieved while the quality of acquisition of certainty is a psychological issue not a matter of epistemology. In epistemology we are not concerned with judgment rather proposition. How should we evaluate the truth and falsity of propositions? The essential method of Shahid Sadr does not help us in this way and provides not measure for distinguishing between the true and false. These three philosophical issues despite all the explanations provided by Shahid Sadr are just concerned with the way we become certain of these propositions. Of course, our certainty of this proposition does not imply that it is true.

This objection has been retorted as follows: Shahid Sadr's essential theory is an epistemological theory in view of the rule that it offers for immunizing the inductive thinking against the error. In other words, he speaks of an epistemological process for acquisition of a justified and well-reasoned certainty. Then, we cannot consider his effort to be of a psychological nature (Khosrowpanah, 2004: 18). To put it otherwise, calculation of probabilities is conducted in relation to the occurrence of an event in the outside world – it is not merely mental rather it is based on external conditions and concerned with the reality; in other words, it shows the percentage of the occurrence of an event in the outside world and it is not so that it is just inside us without having any relationship with the external world. The probability of having the head in ten times of tossing is really low. In other words, in the outside world such an event happens so rare and this not to say that we are seeing this probability low inside our mind without being rare in the reality. Then, calculation of probabilities can provide a measure for concomitance of a judgment with the external conditions and the scale of correspondence of its objects with the reality. If the attestation of a proposition is justified based on the essential method this judgment is compatible with the external conditions and is concerned with the reality. Then, it can be the measure of correspondence of proposition with the reality.

V. Theological Applications of Shahid Sadr's Theory of Knowledge

1- Demonstration of Existence of an All-Knowledgeable Creator:

One of the arguments of existence of a creator is the argument from order which has been presented in various forms (Sobhani, 2017, 1: 33-56). However, some scholars have weakened this argument with raising certain objections and challenged its validity. Shahid Sadr with the epistemological school that he has founded sought to introduce this argument a dependable scientific method for demonstration of the creator.

In our everyday life when we come across a book like "Isharat va Al Tanbihat" and we study it we unconsciously become convinced that its writer is a sage! If someone asks us that how was such a certainty achieved? What do we have to say? Shahid Sadr argues that when we read the words and sentences of this book and see the order and harmony between them a hypothesis takes form in our mind to the effect that "a wise writer has authored this book". If this hypothesis is not correct, then these words have come together in this way by chance and even the letters have been arranged not based on a pattern.

As if an infant has randomly pushed the keys on a computer's keyboard and the final result is the book of Isharat va Tanbihat.

We can take advantage of the calculation of probabilities and express the probability that is acquired inside our existence regarding the randomness of this. If our hypothesis is not correct, the probability of randomness is very low because many states can be deemed for the arrangement of letter in random way and this leads us to a fraction whose numerator is 1 while its denominator is a huge number. The denominator of this fraction becomes larger following our study of the book and the probability of the randomness declines. On the other hand, attestation of the first hypothesis is strengthened and moves from suspicion towards certainty. Essential reproduction is the final step which has been taken and the existence of a wise writer is certain.

Shahid Sadr offers the same analysis of the demonstration of the creator for the universe (Sadr, 2013, 16: 41-50). In fact, Sadr believes that we humans become certain of the existence of God after observation and contemplation of the universe like our ordinary life and this is a method that has been highlighted in some of Quran's verses: Thus did We try some of them by comparison with others, that they should say: "Is it these then that Allah hath favoured from amongst us?" Doth not Allah know best those who are grateful? (Fusilat: 53); Behold! in the creation of the heavens and the earth; in the alternation of the night and the day; in the sailing of the ships through the ocean for the profit of mankind; in the rain which Allah Sends down from the skies, and the life which He gives therewith to an earth that is dead; in the beasts of all kinds that He scatters through the earth; in the change of the winds, and the clouds which they Trail like their slaves between the sky and the earth;- (Here) indeed are Signs for a people that are wise (Baqarah: 164); He Who created the seven heavens one above another: No want of proportion wilt thou see in the Creation of (Allah) Most Gracious. So turn thy vision again: seest thou any flaw? (Mulk: 3).

The inductive reason (argument) of the existence of God is as follows:

First Step: We see the universe and orders and harmonies between the creatures as well as the balance between its elements particularly its agreement with human needs.

Second Step: The hypothesis that can justify these observations is that there is an All-Knowledgeable Creator for this universe.

Third Step: We see that if this hypothesis is not correct, the probability of such an order is very weak because if a wise creator has not created it, then these phenomena have come together by chance. However, if we believe in chance there will be numerous alternative modes and the probability of happening of this single mode will be low.

Fourth Step: Given all our observations of the existing order in the world we prefer to consider the first hypothesis to be correct and we are becoming certain of it.

Fifth Step: There is a reverse relationship between the probability of truth of our hypothesis and the probability of the other hypothesis and by the decline of the probability of the alternative hypothesis the probability of our major hypothesis rises; then, after frequent observations and the decline of probability of randomness of the phenomena in the world the probability of the truth of the hypothesis increases to the point where it leads to the certainty and the existence of an All-Knowledgeable Creator is demonstrated based on inductive reason and essential reproduction.

2- Demonstration of Prophecy of Prophet of Islam (peace be upon him)

According to Shahid Sadr, our ordinary method for certainty in everyday life can lead us to the certainty of the prophecy of Prophet of Islam. Consider the following example: a primary school student gives you a pamphlet in which you find philosophical and mystical themes with beautiful literary words. Although the child has given you the pamphlet you may not see him as the author of the pamphlet. The content of the pamphlet is not compatible with the mental capability of a child. At best you can suppose that someone has dictated these themes to the child as the inscriber.

For demonstration of the prophecy of the Holy Prophet we want to take advantage of the same point. In other words, we want to compare the content of the prophet's mission with his personal and social conditions and reach our desirable conclusion. Accordingly, Shahid Sadr takes four steps:

First Step: The person who has claimed to be the Messenger of Allah lived in a society which suffered from low intellectual, moral, cultural, economic and political conditions. The majority of citizens of this society were illiterate. This person was himself an illiterate man who did not have any difference with others unless from moral point of view.

Second Step: His Prophecy had specific features:

- He brought a culture that was not comparable with other cultures. He spoke of God, His attributes, knowledge and power and His relationship with mankind as well as justice and overcoming of oppression and protection of the weak people.
- Sharia and the judgments he brought for human personal and social life as well as the high values that he propounded impressed everyone insofar as he revolutionized the society that was then bogged down in the swamp of ignorance.
- In the Book that he brought with himself there are some stories of the past nations. Only few Jews and Christians were informed of these stories.
- He brought a Book that was unique in view of its eloquence.
- And ...

Third Step: According to the calculation of probabilities, the probability of revelation of such a Sharia by such person as its creator is very low.

Here someone might raise the objection that this probability is not low because there were other similar cases of pioneers who have emerged in human societies and brought new message. We need to take it into earnest account that our Prophet was not the leader of a social movement that has gradually emerged in the society. Here we are speaking of a revolution and sudden change under the intellectual, ideological and social leadership of an illiterate individual.

Fourth Step: Our contemplation of the characteristics of Mohammad and the features of the Sharia that he has brought with himself we become certain of the falsity of the aforementioned hypothesis. We must think of a revealed factor beyond the natural and sensory factors in order to justify this phenomenon. Then, we become certain of the revealed nature of prophecy (Sadr, 2013, 16: 72-82).

Evaluation of the Theological Applications of Essential Method

Some scholars have raised objections of the use of essential method for demonstration of the existence of an All-Wise Creator. This objection can be phrased in the form of the example that we offered as an explanation of the argument. When we see the book *Isharat va Al Tanbihat* we see that based on the calculation of probabilities and essential reproduction we become certain that a wise author has written this book but the question is that: if the number of the books is infinite could we draw such a conclusion? The answer is negative because some other books might be meaningless and in this infinite time the sentences are alongside each other. By the same token, if we infinitely toss the coin the probability of having the head for five times is quite high; also if an infant pushes the keys on the keyboard for infinite time the probability of creation of such book is not low. According to calculation of

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⁶ This objection is based on the lecture presented by Professor Mahmoud Madadi in 2017.

probabilities we can say that if we suppose infinite times of action the numerator and denominator of the fraction will be both infinite.⁷

After the delineation of these examples we now turn to the argument from order and conclude that if we believe in infinite worlds we cannot infer the existence of an All-Wise Creator for the universe based on the order in the world. In other words, the hypothesis of infinity of the worlds causes the probability of the hypothesis of randomness to be higher and no essential reproduction happens. It seems that this objection cannot be answered and seemingly Shahid Sadr did not pay attention to this point of infinity. Then, essential theory is not applicable as to the argument from the order.

Conclusion

Shahid Sadr has considered essential theory to be the only method for production of knowledge and justifies most of human knowledge based on it. He not only explains the essential method, but also alludes to its applications in logic, philosophy, and theology. In logic, Shahid Sadr believes that only axioms and innate data are part of the self-evident truths and experiences, conjectures, transmissions and sensibilia like other human knowledge are produced based on inductive reason. In other words, self-evident truths in his viewpoint are the a priori propositions. Even he explains axioms and innate truths (but the principle of non-contradiction and certain principles of theory of probability) relying on inductive reason though this does not overshadow their being self-evident and a priori.

In the philosophy, Shahid Sadr demonstrates the reality of external world against the views of idealism, correspondence between mind and reality against the views of Sophists and causal relationship against the views of some empiricists. These three philosophical principles were considered to be self-evident and no argument was offered of them.

In theology, he offers a new version of argument from order and demonstrates the existence of an All-Knowledgeable Creator. Moreover, the prophecy of Holy Prophet of Islam is demonstrated in this way.

Given the objections and answers that were raised, it seems that the objections that were leveled against philosophical and logical applications are not correct. However, the application of the essential method for demonstration of All-Wise Creator based on argument from order seems to be challengeable. The point that has not been taken into account in this application is that if the alternative probabilities are taken to be infinite the calculation of probabilities will lose its function and cannot be efficient. Then, since as to the universe there is hypothesis of infinity of the world, this application cannot be acceptable.

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⁷ Because having the head for five continuous times in infinite tossing can be in first 5 tosses or second 5 tosses and this will be infinite.

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