

On Foundationalism as a Theory of Justification

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ABSTRACT: In order to arrive at a foundationalist approach to the discussion of justification addressed by Islamic Philosophy which is sufficiently rational and solidified; firstly, we must look into this subject and attempt to present proper answers to various challenges posed by many scholars pertaining to it. One of the challenges is the accusation of the skeptists that Islamic epistemological approach to the nature of foundational derivatives on self-evident propositions is weightly obstructed by solipsism. In reference to the issue, this article intends to pave the way for the Islamic philosophical theory of foundationalism by means of expounding arguments that are critical to such skeptical claim.

KEYWORDS: foundationalism, sel-evident, foundation pattern, derivative propositions, epistmemology, skepticism, Necessary Being.

The Problem of Foundation

The notion of Foundation has put itself in a serious consideration due to the need of the examination of its validity. While accepting the necessary and true self evident propositions like intuitive propostions and primal premises, at hand, we are subject to attend to the skeptical response on a number of such propositions together with their matter of hierarchy; and at the same time, to deal with the doubt of the establishment of epistemological system on the basis of a limited number of propositions through finding their common boundary. Concerning the first, we view that the reason of the problem lies in the lack of examples of primal premises on the books of logic and philosophy; some of which are 'the whole is greater than the

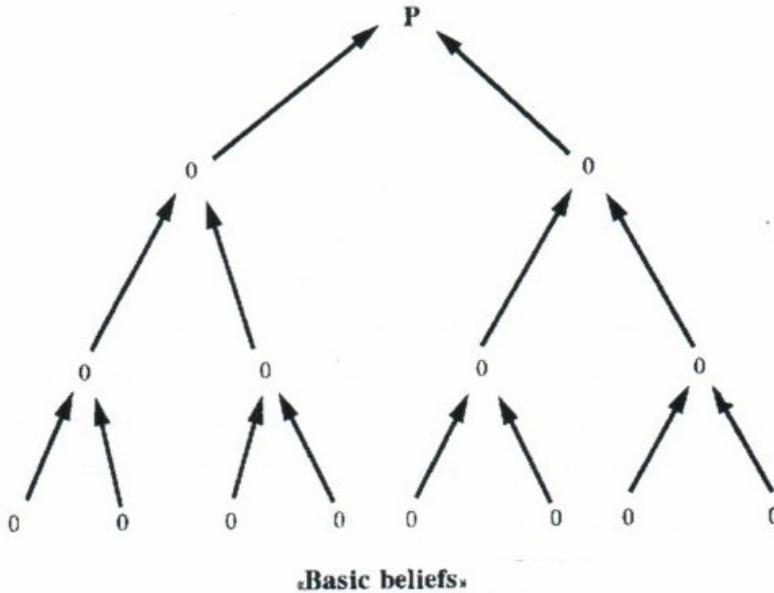
sum of its parts', 'the coincidence of contradictions is impossible', 'if $(x = y)$ and $(y = z)$, then $(x = z)$ ', and along with a limited number of comparative propositions. In this respect, the query remains in proposing a view point that states; 'is it possible to found an epistemological system on the basis of those inadequate quantity of propositions?'

This foregoing subject does not leave us free even though we have successfully found ample instances of primal propositions. Another problem which follows is that since our stance states that those primal propositions are typically and essentially conditional; they do not expressively belong to 'actual order of external world'. That is to say that certain propositions are beyond the mind while there is series of axiomatic facts which prevent us from being beyond our mind; or in the other words, we cannot escape from ourselves without logically, in fact, descending from 'skepticism' to 'solipsism'!¹ If it is the case, the skeptists genuinely plead us for two things:

1. To prove the possibility of establishing a system on the basis of self-evident propositions. Therefore, the evidence has to demonstrate 'a combining process' on which we found an 'epistemological system'.
2. To present a pattern of making the self-evident propositions into a system. In this regard, we shall bestow a certain proposition on the external world which is beyond merely mental one by utilizing the similar process we apply to the self-evident propositions.

However, before presenting a 'foundation pattern', we primarily depict a foundation graph, and then describe some issues about 'foundationalism' and then, the 'foundation processes'.

Foundation Graph: Here, we borrow the ideas of Pollock,² one of contemporary epistemologists, in order to represent our foundation graph.



As illustrated on the graph, if we take ‘knowledge’ as a ‘building’, it comprises ‘the foundation’ and ‘the frontage’. In this graph, ‘*P*’ is a derivative proposition which is a sub-structure and super-structure knowledge. It is reaching basic and axiomatic knowledge through a chain of arguments.

Backgrounds of the idea of Foundationalism

A Foundational and coherent system of thought will assist contemplative philosophers and epistemologists to properly think and write in accordance to the bases of logic. In this sense, we firmly assert that the outstanding philosophers such as Aristotle, Avicenna, and al-Farabi were inclined to accept the truth of Foundationalism despite of a diverse exposition they used and the absence of direct term ‘Foundationalism’ they denoted. However, among the thinkers and philosophers, we still are able to mention some who have directly discuss the ‘axiomatization of science’ or in the other words, the ‘logical foundation of science’.

Euclid and the Geometrical System: In 300 BC, Euclid wrote his famous book, *Elements*, in which he compiled his geometrical discoveries in an orderly rigorous manner. This book has been extremely influential on Western thought and was employed as an academic textbook until the mid-19th century.³ This book has also been favoured in the Islamic World as well, so much so that Khawaja Nasir al-Din al-Tusi gave a comprehensive account of this book in his *Tabrir Uqlidus* (Description of Euclid or Description of Geometrical Elements), Values in Euclidean Geometry, and *Kitab al-Balaghah* (Book of Rhetoric).⁴ However, Euclid's teachings in *Elements* have brought about considerable changes in human thinking.⁵ In this book, Euclid puts geometry into a logical system, beginning by discussing 'definitions' and 'basics', proceeding to 'axioms' and ending with 'hypotheses'.

Descartes and a Mathematical Framework of Knowledge: As a mathematician, Descartes is always appreciated by his firmness and accuracy in mathematics and he insisted the necessity of a firm system for philosophy. After deeply concerned on 'general mathematics', he turned to require 'mathematical order' for philosophy. For this reason, he decided to formulate a type of philosophy which is based on accurate foundations together with its axioms and a set of mathematically order propositions. He began with his methodological skepticism which in turn directed him to his definitive proposition of 'I think, therefore, I am'. In the favor of providing evidence of the truth of his aforementioned epistemological doctrine, Descartes introduced his theory of 'clarity' and 'distinction' which also become fundamental criteria for examining the truth of all propositions. Thus, he strived to establish his epistemological system in mathematical order.⁷ For example:

1. I now attest that the entity before me is paper.
2. My current attesting is clear and distinct.
3. Clear and distinct thoughts are true.

Conclusion: Therefore, there *is* some paper in front of me

Spinoza and Systemizing Knowledge: as mentioned earlier, Descartes introduced the idea of 'general mathematics' and in this light, he maintained 'mathematical' or 'geometrical order' for philosophy, even though he did not fully succeed to bring out this theory into realization. Following Descartes's, Spinoza

surpassed Descartes in terms of employing geometrical approach in composing his philosophical treatises. In this mathematical scheme, his *Ethics* was written in a manner that he particularly proposed definitions, basic axioms and hypotheses in order to give proofs of his theorems.

Forms of Foundation: In what follow, we shall introduce various forms of foundation and then give detail analysis on one of them. Primarily, to be able to distinguish the differences among forms of foundation, we should come to know their types in the justification of knowledge. Foundationalism is of myriad forms as followed:

1. weak foundationalism
2. strong foundationalism
3. rational foundationalism
4. empirical foundationalism

Today, rational foundationalism is known as classical foundationalism whereas empirical foundationalism refers to modern foundationalism. We may state that the above division is a common categorization of foundationism. However, in some occasions, we might come across two other types as well.¹² They are 1) the distinction between ‘material foundationalism’ and ‘formal foundationalism’ and 2) the distinction between ‘epistemic foundationalism’ and ‘meta-epistemic foundationalism’. These are all categorizations of foundationalism, and based on these categories, we will provide an explanation about the different forms of foundation.

- a) **Strong foundation:** is based on valid and necessarily true foundations and is organized in an accurate and logical manner.
- b) **Weak foundation:** is based on foundations which are not necessarily true or are formally defective.
- c) **Rational foundation:** is a form of systemizing knowledge whose foundations are logically valid theorems.
- d) **Empirical foundation:** is based on theorems derived from sensation and

experience. In fact, this form of foundation is rooted in the idea that 'knowledge' must be justified through sensation and experience.

Amongst those diverse forms of foundation, we have incorporated one which necessarily leads us to 'certain and non-doubtable knowledge'; that is 'strong rational foundation', to which we also refer as 'logical foundation'.

A Step towards Systemizing Knowledge: In our attempt, we will design a pattern based on self-evident propositions which their truth are necessary. And from this departure, we will display the way of arriving at derivative propositions which are indispensably true generating from the infallible self-evident propositions'. It is emphasized then, that in this pattern, we will only use basics which are characterized as self-evident, necessarily true, and infallible from flaws and errors.

As we previously mentioned, intuitive propositions and self-evident premises are instances of such theorems. Pertaining to the skeptic's question on the issue, we generally view that our analysis should deal with: 1) providing proof of the possibility of foundation and 2) presenting a pattern for foundation. Due to limited scope of the essay, we cannot cover detail explanation on the former. However, we posit that the possibility of foundation is not limited to few examples of intuitive premises and primary self-evident propositions like 'I feel happy' or 'the whole is greater than the sum of its parts. Instead, they both have numerous instances and the researcher can access them in each field of sciences and use them in his reasoning to demonstrate the truth of the theorems.

Presenting the Pattern of Foundation: Now, we mainly focus on introducing a pattern which principally shows us how derivative propositions are essentially founded on self-evident propositions. this pattern is, in fact, an instance of derivative proposition that much relies on self-evident propositions.

Exposition of the Theorem: We are going to demonstrate a proof of a derivative proposition namely the 'Necessary Being' by means of intuitive and primal premises. Philosophically speaking, it is the being that is independent of others and is not a subject to caused by any reason whatsoever. It necessarily exists and His existence cannot, by any mean, be substituted by non-existence.

Theorem: ‘The Necessary Being exists’ (derivative proposition).

Reasoning: I exist, so I am neither non-existent nor impossible being; because the entity which exists cannot be non-existent or impossible being, for if the entity which exists can be considered as non-existent or impossible being, it requires ‘coincidence of contradictions’ which is obviously impossible. Now that I exist, I am either caused by another thing or not. If I am not caused by another thing, the existence of the Necessary Being is proven. If I am caused by another thing, that other thing becomes the core of discussion. Thus, it would be either the Necessary Being or being caused by another thing. If it is the Necessary Being, the existence of the Necessary Being is proven; and if it is caused by another thing, it requires the infinite chain of the vicious circle, and since they are impossible, the existence of the Necessary Being is definitely proven.

The vicious circle is false, because if the existence of x depends on y , and the existence of y depends on x , then x and y must have existed before coming into existence, and it clearly shows its falsity. Since x is caused by y , it must have come into existence after y . On the other hand, it is the cause of y and must exist before it. Similarly, y is the cause of x and must exist before it. It is also caused by x and has to have come into existence after it. Such a process requires the being to exist before coming into existence and again this is necessarily false. Therefore, the lack of validity of the vicious circle is proven.

The infinite chain is also invalid, because the infinite chain of ‘cause and effect’ would result in an infinite series of beings, which chiefly exist. Hence, all beings are ‘cause’ and at the same time are ‘effect’. What is ‘cause’ and ‘effect’ simultaneously, they logically are in the middle of the chain and what is in the middle requires sides. However, the sides are not there since it is infinite chain. By this argument, the validity of the proposition meets its failure. In the other words, that the self-evident proposition states ‘what is in middle requires sides’ implies the absence of sides indicating the infinite chain. In the light of this proposition, if the chain has sides, it cannot plausibly be infinite. Thus, the validity of chain is annulled.

Result: Based on the self evident and theoretical theorems derived from them, the existence of the ‘Necessary Being’ is proven.

Rebuilding and Analysis of the Argument: it is time for us to we reformulate and examine the above-mentioned argument of ‘foundation pattern’ through an explanation and analysis of its foundations. The foundations employed in this argument are either ‘intuitive’ and ‘primal terms’ or are somehow derived from them. So, we attempt to elicit these foundations despite of their occasionally being hidden. For example, we rarely find the ‘principle of non-contradiction’ utilized into arguments. Khawaja Nasir al-Din al-Tusi, in his *Asas al-Iqtibas*, says:

‘And general principles are employed either potentially or actually. The first case is like {the principle of} negation and affirmation {i.e. the principle of non-contradiction} in all sciences, which are so clear that they are not be referred to’.¹³

However, unlike the common traditions, we intend to allude to these foundations as well. Consequently, in our consideration of the aforementioned matters, we will reconstruct the ‘foundation pattern’ manifested in the ‘affirmation of existence of the Necessary Being’ in the following manner:

Derivative Proposition: ‘The Necessary Being exists’.

Argument:

1. I exist. (intuitive proposition)
2. The coincidence of contradiction is impossible. (primary self evident proposition)
3. Existence either depends on another entity or not. (primary self evident proposition)
4. If my existence (as a being) does not depend on another entity, I am the Necessary Being. (primary self evident proposition)
5. If my existence (as a being) depends on another entity, it means that other entity primarily exists, because when the effect exists, the cause necessarily exists. (primary self evident proposition)
6. That other entity (as a being) either depends on another entity or not. (primary self evident proposition)

7. If that other entity (as a being) is not caused by another entity, it is the Necessary Being. (primary self evident proposition)
8. If that other entity (as a being) is caused by another entity the infinite chain and vicious circle, it becomes necessary. (primary self evident proposition)
9. The circle is vicious (derivative proposition). It is invalid since it requires the being to exist before coming to existence. For example: since **x** is caused by **y**, it must exist after **y**; and since it is the cause of **y** as well, it must exist before it; and since the existence of a being before its coming to existence is necessarily impossible, it is invalid (primary self evident proposition). So the vicious circle is invalid.
10. The infinite chain is also invalid (derivative proposition). It is invalid because it is an infinite series of actually existing beings. They are all 'cause' and at the same time 'effect'. Things that are 'cause' and 'effect' simultaneously have to be in the middle of the chain and what is in the middle requires sides. But, the proposed series is infinite and has no sides, then the conclusion cannot be other than that it is impossible.

Result: It has been proven that the Necessary Being, which is the being that is not caused by anything necessarily exists in the external world.

In this essay, we have presented an argument of a 'foundation pattern' whose foundations are 'intuitive' and 'primary self evident proposition'. This argument was inspired by the argument that Khawaja Nasir al-Din al-Tusi firmly elaborated in his *Tajrid al-I'tiqad* as follows:

'The Necessary Being necessarily exists; otherwise, we fall into the infinite chain and vicious circle'.¹⁴

As we would expect, our demonstration has not deviated from the 'intuitive' and 'primary self-evident proposition'. Even the form of the syllogism, which we employed in our argument, is one of the primal terms. This assertion can preserve the evidence of the Necessary Being, etc. Now, it is clear that the notion of 'foundation pattern' previously explicated on the level of reasoning can become a model for devising arguments about various subjects.

Notes:

1. See Paul Edwards (ed.), *Encyclopaedia of Philosophy*, vol. 7, pp. 487-491 & Bruce Aune, *Knowledge of the External World* (London: Routledge, 1991), pp. 57-84.
2. John L. Pollock, *Contemporary Theories of Knowledge* (Totowa, NJ: Rowman & Littlefield Publishers, 1988), p. 26.
3. Stephen Barker, Falsafeye Riazi (Persian translation of *Philosophy of Mathematics*) (Tehran, kharazmi, 1349), pp. 37-38.
4. Khawaja Nasir al-Din al-Tusi, *Asas al-Iqtibas* (Principles of Adaption), ed. Mudarris Razavi (Tehran: Danishgah-i Tehran, 1948), editor's preface, pp. 18, 19, 25.
5. See Ahmed Mahmud Alshanvaie, "*Kutub Ghayyarat al-Fikr al-Insani*" [*Books that Changed Human Thoughts*] (Egypt, al-Haiah al-misriyyah lil-Kitabdancy, 1990), pp. 63-74.
6. Stephen Barker, *Philosophy of Mathematics*, pp. 41-111.
7. Elliot Sober, *Core Questions in Philosophy: A Text with Reading* (Princeton: Prentice-Hall, Inc., 1995), pp. 161-175.
8. Baruch Spinoza, *Ethics*, trans. Dr. Mohsen Jahangiri, ed. Esmail Saadat (Tehran: Academic Publications Centre, 1975), pp. 210-211.
9. Paul Edwards (ed.), *Encyclopedia of Philosophy*, vol. 3, pp. 258-590.
10. Ernest Sosa, *Knowledge in Perspective: Selected Essays in Epistemology* (Cambridge: Cambridge University Press, 1991), pp. 1-15.
11. Jonathan Dancy and Ernest Sosa, (eds.), (1993) *A Companion to Epistemology*, Oxford: Blackwell p. 157.
12. Ernest Sosa, *Knowledge in Perspective*, pp. 151-157.
13. Khawja Nasir al-Din al-Tusi, *Asas al-Iqtibas*, p. 395.
14. Allama Hilli, *Kashf al-Murad fi Sharh Tajrid al-I'tiqad*, Qum, Mustafavi , p. 217