The Mathematical Expressions of Quranic Exegeses and the Mathematical Definition of the Quranic Correctness

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Abstract

I succeeded to give mathematical expressions to any correct Quranic exegeses and define the Quranic correctness as the unique existence of Tahara I function. In a precise mathematical sense, the expressions and the definition are ill-defined however they might have meanings to prove the Quranic correctness.

1 Introduction

I am a muslim because I have thought the Quran must be correct. I am a scientific fundamentalist therefore I have thought any facts can be proved by using scientific way. Therefore, I have thought we can define the Quranic correctness by using truly scientific and mathematical (not far-fetched) ways like physical phenomena.

However, I have never heard such theories or studies therefore I had wanted to discover the truly scientific and mathematical way to prove the Quranic correctness.

Of course, attempts to explain the Quran logically have probably been made since the 8th century[1], and in recent years, researchers such as Wahid[2] tried to prove the Quranic correctness by bringing Quranic descriptions which 'seem' scientific as the evidences. I agree with the idea that the Quranic scientific descriptions are the rationales for its correctness and their studies have great meanings, however I think their interpretations of descriptions are individual and scientifically and mathematically less general.

When I learned probability theory, I was inspired that any meaningful correct ways of Quranic interpretation can be given expressions in mathematical map forms and that the Quranic correctness can be defined by using these maps. We can prove the Quranic correctness only after defining it therefore I think this inspiration might be good for anyone who wants to prove the Quranic correctness.

In addition to this, I got an idea that there can exist only one truly correct way of Quranic interpretation, which I have thought naturally, as the sum of meaningful correct ways of Quranic interpretation if I can define the sum of maps. Therefore, I defined it and named the only one truly correct way Tahara I map.

Below I will explain these theories in a unified way.

2 Definitions of Basic Concepts

The conclusions are as follows:

Theory 1

> Any meaningful ways of Quranic interpretation which derives true propositions
>
> can be given expressions as maps as the components of Tahara I map.

Theory 2

We can define that the Quran is correct if and only if Tahara I map exists uniquely.

In order to explain these theories, we define several other things.

2.1 Definitions of the Special Sets

Two special sets are defined as follows:

Definition 1

[Q.S.] : the Set of the Sentences that Make up the Quran

Definition 2

[T.P.] : the Set of the Scientifically True Propositions

[T.P.] is science philosophical. It is ill-defined, therefore we need study to make it well-defined.

2.2 Definition of Sum of Maps from Sets to Families of Sets

In this section,

$$X \text{ is a set, } \lambda \in \Lambda, \ Y_\lambda \text{ is a set of sets, } f_\lambda : X \longrightarrow Y_\lambda, \ n \in \mathbb{N}$$

$$U_n = \bigcup S \ (S \in \bigcup_{k=1}^{n} Y_k), \ U_\infty = \bigcup S \ (S \in \bigcup_{k=1}^{\infty} Y_k) \ U = \bigcup S \ (S \in \bigcup_{\lambda \in \Lambda} Y_\lambda)$$

We define the sum as follows:

Definition 3

$$\text{We define} \quad \sum_{k=1}^{n} f_k = f_1 + f_2 + \cdots + f_n = F : X \longrightarrow U_n \quad \text{as} \quad F(x) := \bigcup_{k=1}^{n} f_k(x)$$

$$\sum_{k=1}^{\infty} f_k = f_1 + f_2 + \cdots = F : X \longrightarrow U_\infty \quad \text{as} \quad F(x) := \bigcup_{k=1}^{\infty} f_k(x)$$

$$\text{and generally,} \quad \sum_{\lambda \in \Lambda} f_\lambda = f_1 + f_2 + \cdots = F : X \longrightarrow U \quad \text{as} \quad F(x) := \bigcup_{\lambda \in \Lambda} f_\lambda(x)$$

2.3 Definitions of Tahara I Map and its Components

Definition 4

We define Tahara I map as I satisfied

$$I = \sum i(i : 2^{[Q.S.]} \times 2^{[T.P.]} \longrightarrow 2^{[T.P.]} \wedge i : \text{meaningful})$$

the (real) components of Tahara I map as i satisfied

$$i : 2^{[Q.S.]} \times 2^{[T.P.]} \longrightarrow 2^{[T.P.]} \wedge i : \text{meaningful}$$

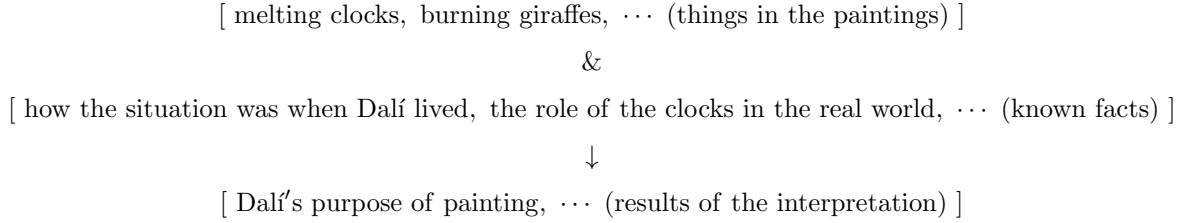and the fake components of Tahara I map as i satisfied

$$i : 2^{[\text{Q.S.}]} \times 2^{[\text{T.P.}]} \longrightarrow 2^{[\text{T.P.}]} \wedge i : \text{meaningless}$$

The term 'meaningful' is ill-difined. We need it to meen 'not obviously correct i.e. nontrivial', 'not far-fetched', 'profound' and 'mathematically beautiful'.

3 How We Can Give Expressions

Interpretation means deriving its results from known facts and things whose meanings are unknown.

For example, when we appreciate Salvador Dalí's paintings[3], we often interpret the paintings as follows:

[melting clocks, burning giraffes, $\cdots$ (things in the paintings)]

&

[how the situation was when Dalí lived, the role of the clocks in the real world, $\cdots$ (known facts)]

$\downarrow$

[Dalí's purpose of painting, $\cdots$ (results of the interpretation)]

If the results are true i.e. the interpretation derives true propositions, the rationales (known facts) and results are the elements of [T.P.] alike, therefore any correct way of the interpretation of Dalí's paintings can be given expression as

$$2^{[\text{the set of the things in the paintings}]} \times 2^{[\text{T.P.}]} \longrightarrow 2^{[\text{T.P.}]}$$

Like this, an arbitrary meaningful way of the interpretation from Quranic sentences to true propositions can be given expression as a component of Tahara I map like as follows:

Theoremish Expression 1

i which is a meaningful way of the interpretation from Quranic sentences to true propositions.

$$\leftrightarrow i \text{ satisfied } [i : 2^{[\text{Q.S.}]} \times 2^{[\text{T.P.}]} \longrightarrow 2^{[\text{T.P.}]} \wedge i : \text{meaningful}]$$

4 How We Can Define the Quranic Correctness

First, intuitively speaking, it is true that

The Quran is correct.

$\implies$ There exists at least one meaningful way to interpret Quran which derives true propositions.

and we can induct that the opposite is also true. This inference is not mathematically true but it is probably scientifically valid because of the beauty and the meaningfulness of the way[4][5].

Therefore, we can define the equivalence as follows:

Lemmawise Definition 1

The Quran is correct.

$:\iff$ There exists at least one meaningful way to interpret Quran which derives true propositions.

Second, by **Theoremish Expression 1**, we can define another equivalence as follows:

Lemmawise Definition 2

There exists at least one meaningful way to interpret Quran which derives true propositions.

$:\Longleftrightarrow \exists i, (i : 2^{[\text{Q.S.}]} \times 2^{[\text{T.P.}]} \longrightarrow 2^{[\text{T.P.}]} \wedge i : \text{meaningful})$ i.e.   There exists at least one component of Tahara I map.

Third, by **Definition 3** and **Definition 4**, the equivalence below is obviously correct.

Lemma 3

$$\exists i, (i : 2^{[\text{Q.S.}]} \times 2^{[\text{T.P.}]} \longrightarrow 2^{[\text{T.P.}]} \wedge i : \text{meaningful})$$

$\Longleftrightarrow \exists_1 I, I = \sum i(i : 2^{[\text{Q.S.}]} \times 2^{[\text{T.P.}]} \longrightarrow 2^{[\text{T.P.}]} \wedge i : \text{meaningful})$ i.e.   Tahara I map exists uniquely.

By **Lemmawise Definition 1**, **Lemmawise Definition 2** and **Lemma 3**, we can define the Quranic correctness as follows:

Theoremish Definition 2

Quran is correct. $:\Longleftrightarrow$ Tahara I map exists uniquely.

5 Conclusions

As I mentioned above, the conclusions are as follows:

Theory 1

Any meaningful ways of Quranic interpretation which derives true propositions

can be given expressions as maps as the components of Tahara I map.

Theory 2

We can define that the Quran is correct if and only if Tahara I map exists uniquely.

6 Future Work

Primary goal of my studies is proving the Quranic correctness i.e. proving the existence of Tahara I map i.e. proving the existences of its components. In order to reach the goal, I think we have to do 'Brainstorming' because I don't know which way of studies can solve the problem.

References

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