

Mathematical Theology-A New Approach

Nishad T M, MSc, MPhil, (PhD)

Faculty Member (Part Time), T.I.M.E Pvt Ltd Cochin.

Abstract - In this article the proof of the important conjecture in mathematical theology is proved by introducing the application of Zorn's Lemma in the partially ordered set of souls of human beings. Philosophy on zero is discussed as a part of it. The mathematical abstract of real part of God is modeled. Since the modeling brings new insight in existing beliefs, some insight on errors in mathematics reference books is showed and suggested the modifications. The easy method to become Mahatma or Blessed human being is also suggested.

AMS Mathematics Subject Classification (2010): 16B70, 00A05, 00A06, 00A17, 00A71, 91C05, 91D10, 94D05, 97E30

Keywords - Mathematical Theology, Abstract of God, Zorns Lemma, Maximal element, Real Analysis, NCERT.

I. INTRODUCTION

Rev. Dr. Augustine O Konnulli [13] served St. Alberts College as a Mathematics Professor during the period 1949-1983 and as Principal during 1973-78. He was a great mathematician and philosopher acclaimed national and internationally. He published his research papers in international journals like American Mathematical Monthly, Journal of London Mathematical Society, Academia Nazionie Dei Lincei (Italy), Beitrage zur Algebra and Geometrie (Germany), The Journal of the Australian Mathematical Society etc. His works include "Perspective Simplexes and Tucker Quadrics", "Isogonal Conjugates in E^n ", "Pivot Theorems in n -Space", "An Incidence Relationship of Hypersphere in E^n ", and so on. He introduced a new concept in mathematics which holds the name "Vector Multipliers". He was the first person to acquire Ph.D in Mathematics from the University of Kerala at the time when this was the only University in Kerala. Fr. Dr. Augustin O Konnulli tried to develop "Mathematical Theology" but his works were not available. Nishad T M (author) was a Post Graduate student in the Fr. Augustine Konnulli memorial Research Department of Mathematics, St Alberts College Ernakulam, Kerala. Nishad T M informed the possibility of the research in Mathematical Theology using fuzzy mathematics and measure theory to Prof. Dr. Sourier Sebastian and Prof Edwin Tomson, Research Department of Mathematics, St Alberts College Ernakulam in 2005. They did not encourage research in this area since the acceptance of "Mathematical Theology" among academicians and mathematicians was not sure. In independent research, Nishad T M developed Soul set in 2016[4] and described Soul process in 2017[9]. In this article the proof of the important conjecture in mathematical theology is proved by introducing the application of Zorn's Lemma in the partially ordered set of souls of human beings. Philosophy on zero is discussed as a part of it. The mathematical abstract of real part of God is modeled. Since the modeling brings new insight in existing beliefs, some insight on errors in mathematics reference books is opened and suggested the modifications. The easy method to become Mahatma or Blessed human being is also suggested.

II. PRELIMINARIES

Human Quality: A human quality is defined as something a person has that makes that person human by a set of judgment of other human beings under consideration.

Soul Object: It is an abstract noun, verb, statement or sentence which represents human quality.

Soul Object of a Product: It is an abstract noun, verb, statement or sentence which represents the quality of the Product.

Soul Set: It is a fuzzy set that consists soul objects as elements and equation of judgment or fuzzified measure preserving standard measure order as membership function.

Soul Process: It is the Soul Status of Soul Space under various time with respect to any judgment.

Bounded Soul: The finite soul process S on a finite soul space of a person is known as bounded soul of that person.

Bounded Soul of a Product: The finite soul process S on a finite soul space of a product is known as bounded soul of that product.

Soul Space G : It is the set of all distinct soul objects derived from stem of meanings of names used to replace the names of origin of all virtues and vices (as per beliefs by the followers of last prophet and 6th pillar of beliefs in metaphysical aspects) described in the holy scripture from last prophet. The selection of set G is based on reference [5,6,7,8].

Zorn's Lemma : In a partially ordered set, if every chain has an upper bound, then there exists at least one maximal element. If the set is totally ordered then that maximal element is unique.

Maximal Element : An element which is not related to any other elements in the set under consideration.

Comparable Elements: Two elements a, b in a partially ordered set are said to be comparable if either a related to b or b related to a .

Chain: A chain in a partially ordered set P is a subset $C \subseteq P$ such that any two elements in C are comparable.



III. PROOF OF UNSOLVED CONJECTURE IN THEOLOGY

Statement 2.5: God Exists.

Proof: Define the Relation R in the set H of all soul set of all human beings who are alive in earth at a time t such that aRb if $a \subseteq b$, where a and b are soul sets of the persons A and B having all soul objects from G. Clearly R is reflexive, anti symmetric and transitive. Two persons can have equal soul sets at time t. In H every pair of elements need not be comparable and so H is not a totally ordered set. Let $S_i, i=1,2,3..$ be subsets of H which consists only comparable or singleton subsets of H. Consider the soul sets $U_i, i=1,2,3..$ with membership value of soul objects is equal to the maximum of corresponding membership value of all soul sets in a subset S_i of H. Then U_i is an upper bound for soul sets S_i . Applying Zorns Lemma, the partially ordered set H has at least one maximal element. This existence of at least one maximal element shows atleast one element (say God) which is not related to any other element exists. A super set of all the possible maximal elements is a unique maximal element that can act as actual God.

Mathematical Abstract of Real Part of God, Re(G): Zero, the origin vector needs in Real Number system. Though it is an infinitesimal number, it is given some exemptions in obeying all Archimedean properties for real numbers. Mathematicians consider Zero as the only real and infinitesimal number. Zero is considered as the origin of all positive and all negative real numbers. It is neither positive nor negative. Though its value is considered as nothing, without that concept science can't be expressed or exist. So its importance is infinite. (The definition of value of variable thing "x" at time t is interpreted as a measure on importance that is given to "x" at that time t. So the value of the element 0, the origin vector is actually the value of the concepts developed by fixing origin vector by academicians). Mind of a person is the set of all thoughts of that person where a thought is considered as an output of reasoning's from existing knowledge with new knowledge of that person. Generally positive thought and negative thought creates virtue and vice. Taking the projection of the concepts positive, negative and zero in real number system to the set mind, there exists the origin of positive and negative thoughts (say input for G) similar to zero in real number system. Considering zero as a complex number, it has clearly a real part and Imaginary part. So the concept G is assumed as having Real and Imaginary parts. The complex numbers have applications in mathematics. The real and imaginary part of G also have wide application in real life. The real part of G can be modeled as a soul set $Re(G) = \{(x, 1) \mid x \text{ is a soul object in set } G \text{ and } 1 \text{ represents } 100\% \text{ membership as per fuzzified measure equation of judgment [4] at every time}\}$. In the reference it is noticed that last incarnation Kalki (as per Hinduism), next Buddha Mythreyya (as per Buddhism), Paraclete after Jesus (as per Christianity) and the Prophet similar to Mosus that mentioned in Torah (as per Judism) are same person Last Prophet Mohammed (as per Quran). The stems of meanings of important names of God in Quran are all soul objects and only through human beings most of those can be realized. For example if a person possess love, knowledge, success, patience, etc in life that shows he implements soul objects wadud, aleem, fathaah, saboor, etc (stem of meanings of some names of God in Quran) and has a soul subset of Re(G). The Imaginary part of God, Im(G) cannot be modeled since the imaginary part varies according to the domain of knowledge of each person. It can be implemented virtually through metaverse technology. Im(G) has wide application in real life and the imaginary life in hereafter since the projection of the ideas real and imaginary part of numbers and functions are used in mathematics to simulate and solve problems. Re(G) is the abstract of a unique maximal element since other possible maximal elements are subsets of Re(G).

Survey Result: Using a set of questionnaires a survey is conducted among 100 academicians. 25 from Islam religion, 25 from Hindu religion, 25 from Christian religion and 25 from non religious, atheist category. The survey result showed that 75% hesitate to accept God Allah but 98% are accepting implementation of Soul objects in Soul Space G in daily life.

In general, more than 75% are un aware on the fact that Soul Space G describes meanings of names of God Allah. To continue as non religious /neutral religious /atheist (or not belonging to realistic view of Islam) a person must identify all the possible soul objects in Soul Space G and he must avoid implementation of all those soul objects from his daily life. But it is impossible to human beings. Therefore by the application of method of contradiction in beliefs, the educated thinking people cannot reject Re(G) in life.

III. SOME LOGICAL ERRORS IN REFERENCE BOOKS IN MATHEMATICS AND SUGGESTIONS

A. Logical Error in Real Analysis

In the reference book Introduction to Real Analysis [10], it consists the proof for the statement Smallest Positive Real Number doesn't exist. The book is used in India, Myanmar, Bangladesh, Indonesia, Nepal, Pakistan, Philippines, Srilanka and Vietnam. This proof has been following for centuries.

Existing Proof: (As in Mathematics reference text books prescribed by Universities) Assume that the smallest positive real number exists and let it be "a". Now "a/2" is smaller than "a" contradicting the assumption that "a" is the smallest positive real number. So assumption is wrong. By method of contradiction, the smallest positive real number does not exist.

Cause of error : The numbers very close to 0 are considered as infinitesimal number. 0 is the considered as only real and

infinitesimal number.

If “a” is assumed as the smallest positive real number.

1. Then the nature of “a/2” is in a doubt ?
2. Smallest means there is no other one in same category smaller than the smallest. Example if a pen is smallest among available pens, then showing a pencil which is smaller than the smallest pen we can't say there exists a pen smaller than smallest pen.
3. Is a/2 an infinitesimal number other than 0 ?
4. If so how can we say it is a real number
5. The above proof is not acceptable till we show that the number smaller than the smallest positive real number is not an infinitesimal number. This is not possible as per definition of infinitesimal numbers.

Suggesting modified Proof: Assume that the smallest positive real number exists and let it be “a” . Now a must obey all Archimedean properties for real numbers. For any natural number n, the reciprocal $1/n$ is a real number. Since “a” is the smallest positive real number, “a” is always less than any other positive real number. So we shall write $a < (1/n)$ for every natural number n. This implies that $(1/a) > n$ for every natural number n. Now the reciprocal of “a” is not bounded above. By Archimedean property of real numbers, the reciprocal of a real number except 0 must be bounded above. The assumed “a” now fails to keep Archimedean property for real numbers. Therefore as per Archimedean property for real numbers, the smallest positive real number cannot exist.

B. Definition of natural numbers [11,12]

In the NCERT text book in Mathematics for 11th grade in India, the definition of Set of Natural Numbers show that $N = \{1,2,3,4,\dots\}$. But in the reference book Discrete Mathematical Structures in many Indian universities, the authors consider set of natural numbers include 0 and proving that that set is a monoid with respect to the operation addition. To the students in India having NCERT background, N is not a monoid with respect to addition.

Suggestion: Strictly follow the same definition in university and school level text books.

log x and ln x [12]

In NCERT text book for plus two students in India , natural logarithm of x is represented as $\log x$. In the scientific calculators, $\ln x$ is used to represent natural logarithm of x . Its derivative with respect to x is $1/x$. But Indian students are taught $\log x$ as natural logarithm and its derivative with respect to x as $1/x$. This is not a standard form of representation. $\log x$ is considered as logarithm to the base 10 in scientific calculators and to mitigate this ambiguity, the ISO 80000 specification recommends the universities. Currently in examinations students have to agree with $\log 100 = 2$ and derivative of $(\log x)$ w.r.to x is $1/x$. That means $10 = e = 2.718281\dots$ is true according to the universities and Indian educational boards. That's obviously wrong.

Suggestion: The notation must be changed in NCERT text book .

CONCLUSION

In this article Mathematical theology is developed in new approach. As a part of it philosophy on zero is described. The logical errors in NCERT and university level mathematics reference books is showed and suggested the required modifications. The abstract of real part of God shows its negligible portion exists in human beings and the soul objects representing God is not visible or measured from appearance of a person but through fuzzified measure equation of judgment, it can be approximated. The numbers very close to zero are infinitesimal numbers. The human beings very close to real part of God can be viewed as Blessed or Mahatma. The easy method to become blessed or mahatma is the implementation of some positive soul objects (according to general judgment set) in O up to full judgment [4,9].

REFERENCES

- [1] Fuzzy Sets Information and Control- Lofit A Zadeh
- [2] Introductory Functional Analysis with Applications– Erwin O Kreyszig.
- [3] Discrete Mathematics and its Applications- Kenneth H Rosen
- [4] An introduction to Soul Sets, Nishad T M ,IJSER
- [5] The Hindu Philosophy of Kalki Avatara from Islamic View on Nubuwwah, Muhamed Mihlar Abdul Muthaliff, IJARBS, ISSN 2222-6990, 7(2017).
- [6] <https://www.islamawareness.net/Buddhism/Scriptures/mibs02.html>
- [7] <https://jesus-is-muslim.net/en/jesus-is-muslim/prophet-muhammad/prophet-muhammad-in-the-bible/the-paraclete-prophet-muhammad/>
- [8] <https://www.withprophet.com/en/prophet-muhammad-in-the-torah>
- [9] Nishad T M, Soul Process,8(6) (2017) IJSER, ISSN 2229-5518.
- [10] Introduction to Real Analysis, Authors: Robert G Bartle,Donald R Sherbert
- [11] Discrete Mathematical Structures, Authors: J P Tremblay, R Manohar.
- [12] NCERT Text Books for Mathematics 10th,11th and 12th Grade.
- [13] <https://www.alberts.edu.in/departement-of-mathematics/>