



# Hermeneutics is *fun!*

*An introduction to Hermeneutics of Science and Hermeneutics of Early Christianity History*

Victor Christianto

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*Bless the Lord, o my soul...*  
*All praises to God Almighty*

## Preface

This book was inspired by a lecture on hermeneutics that one of us (VC) gave around February 2019, in Jakarta. Although initially we plan to publish this compilation of articles with a dense title such as: Being in-and-before Time, after experiencing myself how a hermeneutics class can be so interesting and fun, we decided to give title to this book: *Hermeneutics is fun!*

Of course, the topics we discuss here are quite interesting for hermeneutics students: *from hermeneutics of science to hermeneutics of Early Christianity History*. Along the way, we will also touch some novel aspects of consciousness, DNA and also dialogue between science and theology.

Hopefully you will find this book interesting.

And one of us (VC) would like to dedicate this book to participants of Hermeneutics class: bu Yayang, bu Titi, bu Susan, bu Erna, Deby, Eber, Mitha, Michael, Ricky, Tononi, Alwin, and Roigen. God love you all.

Enjoy reading...

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VC

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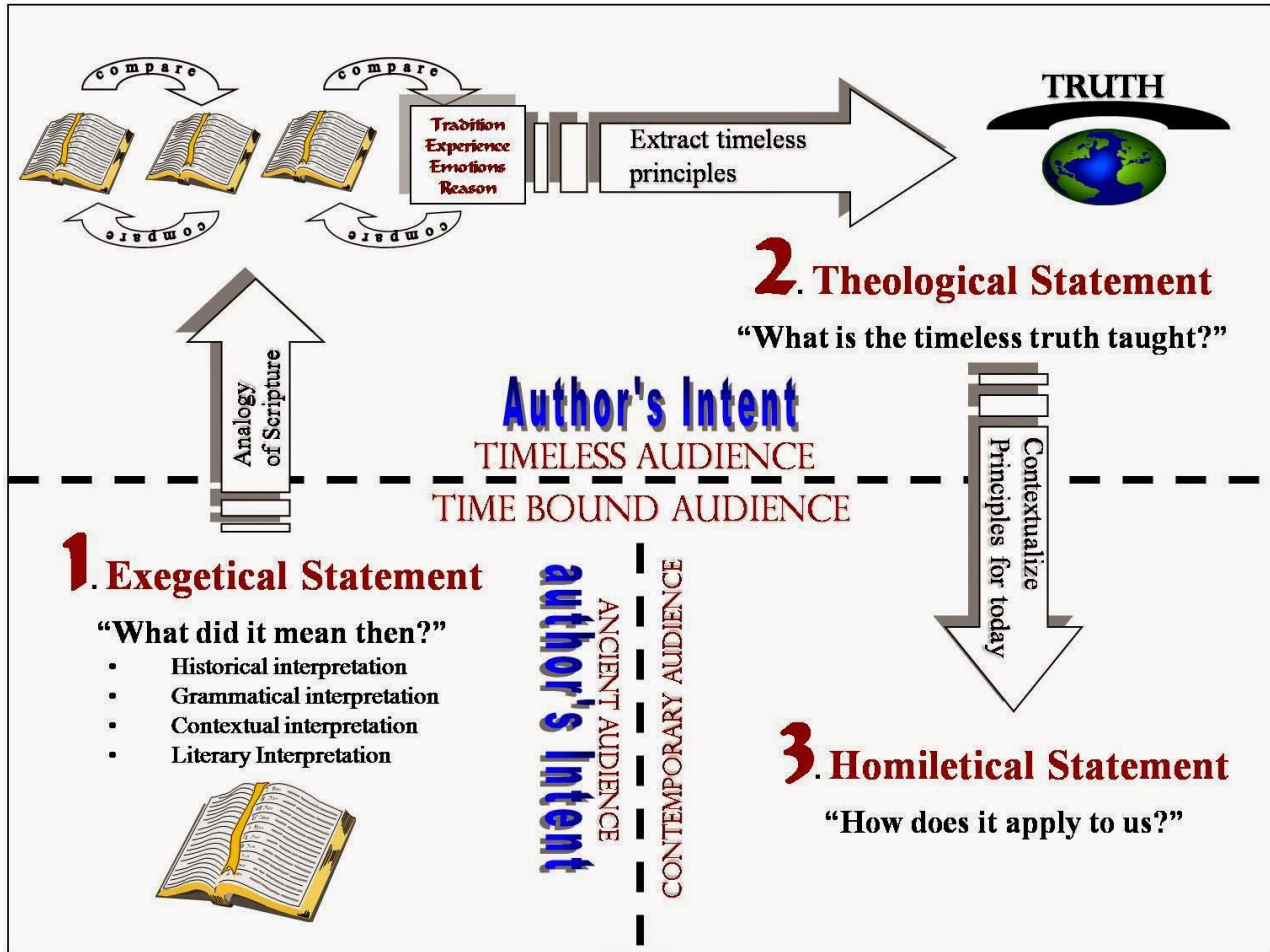
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# Section 1: Prelude to Hermeneutics of Science





# How should a scientist read the Bible?

(A response to Amos Yong's paper)

By Victor Christianto,<sup>1</sup> email: victorchristianto@gmail.com

## Abstract

This is a proposal of investigation on modern hermeneutics and its relation to science. This is in no way a complete assessment of Gadamer, Ricoeur, Habermas and other contemporary champions of modern hermeneutics.

## Introduction

This is a proposal of investigation on modern hermeneutics and its relation to science. This is in no way a complete assessment of Gadamer, Ricoeur and other contemporary champions of modern hermeneutics.

I am sorry if my reading is rather subjective, because this is not yet rigorously studied.

## Review of Amos Yong's paper

A couple of weeks ago I read a very interesting paper by Amos Yong on relation between science and theology [1]. In essence he argues that evangelicals tend to blame science for making progress, leaving Bible alone with its prophets.

Yong suggests that Pentecostal's Hermeneutics can help to solve this dichotomy. His proposal is that Holy Spirit is helping the believers now as good as people at the earliest church history, and that is the true message of the Gospel. So in short, it has nothing to do

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with today's progress in science whatsoever. In other words, Yong advises that it is wrong to ask the Bible something about Creation story etc., as asked by many evangelicals. The question is: Is that true that we should not ask a scientific truth in the eyes of the Bible?

## Review of Hermeneutics of Suspicion

First, I should admit that I never read (at least not yet) any book written by Paul Ricoeur. But at the very least, I obtain a good book devoted to Hermeneutics of Suspicion [6]. So I will try to tell you my perception on that issue.

Hermeneutics of Suspicion is a phrase coined by Ricoeur in order to categorize the “breakthroughs” in science brought by Marx, Freud, Darwin etc. He suggests that it is because they employed a kind of hermeneutics of suspicion that they could offer a new insight, be it in psychology, economics politics, and biology.

Regardless of the question of whether Marx’s analysis is correct, or Freud’s psychoanalysis is the best theory of mental illness or whether Darwin’s evolution theory is correct, I will focus only on the hermeneutics that they use, because modern science largely depends on two things: paradigm and hermeneutics. Especially when it comes to scientific reading on the Bible, then a hermeneutics is to be used, like it or not.

In the subsequent section, I will offer a new scheme which I prefer to call as: Spectrum of Hermeneutics. As far as I can recall, this is a new thing in this busy field of hermeneutics thinking, so I will try to describe it as patient as possible. Let us jump to the next section.

## Spectrum of Hermeneutics

Let us accept the notion of Pentecostals Hermeneutics as promoted by Amos Yong and other Pentecostals scholars such as Gordon Fee [3][4]. But this is just one choice of hermeneutics among many of possible approaches. We can think of more than five other possible approaches toward the Bible.

Second, perhaps it would be helpful to be skeptic to hermeneutics of suspicion, or in better phrase: The first thing we should be suspicious about is hermeneutics of suspicion itself. In other words, although being critical is acceptable such as in historical criticism, if we employ hermeneutics of suspicion, we tend to be hypercritical towards the Bible. Of course, being hypercritical can be unhealthy, because it means that we carry our own excess baggage that is to be critical about everything.

So perhaps we can agree that Hermeneutics of Suspicion should be distinguished from Hypercritical or Radical Hermeneutics [8].

Third, Pentecostal’s reading of the Bible often put more respect on their experiences rather than correct exegesis [2]. If my interpretation of Amos Yong’s paper is correct, most of the time Pentecostals tend to read the Bible in order to get its message for their experiences, like speaking in tongue. Although such Pentecostal hermeneutics has its own advantage, we should also be cautious for a trap of being delusional, i.e. to claim that the Bible means something, when it actually does not.

In other words, perhaps we should distinguish between a healthy Pentecostals Hermeneutics and Delusional Hermeneutics.

Now, if we agree with the above distinctions, then perhaps we can think of seven categories of Hermeneutics approaches to the Bible, as follows:

Description	Critical	Believing	Involvement	Responsibility
Hypercritical (Radical Hermeneutics)	v	x	x	x

Hermeneutics of Suspicion	V	x	X	v
Hermeneutics of Neutrality	V	v	X	V
Hermeneutics of Respect	V	v	V	v
Hermeneutics of Faith	X	v	V	v
Pentecostals Hermeneutics	X	v	V	V
Delusional Hermeneutics	X	v	V	x

### How should a scientist read the Bible?

Taking a look at the above table, now we know that as a scientist we have seven choices to approach and read the Bible, and hermeneutics of suspicion is just an option among other options. If we are Pentecostals, then perhaps we can take Amos Yong's receipt of Pentecostals Hermeneutics.

But there are other options, such as: Hermeneutics of Neutrality, Hermeneutics of Respect and Hermeneutics of Faith. An evangelical scientist perhaps would prefer Hermeneutics of Faith, but a scientist of modern physics perhaps can choose Hermeneutics of Respect or Hermeneutics of Neutrality.

## Conclusion

As I wrote in the beginning, this is not an extensive review of many hermeneutics approaches in the literature. I just think what I have done as an independent researcher during the past 15 years, and propose something which is perhaps quite practical to discuss further. More investigations are required.

Nonetheless, I believe that the proposed scheme has practical value, especially for real scientists doing real science.

One last word of caution: we should be cautious before using Radical Hermeneutics and Hermeneutics of Suspicion for approaching the Bible, otherwise we will not grasp its messages for us in exchange of scientific precision in modern terms.

Version 1.0: 9 March 2015  
Victor Christianto

## Section 2: Dialogue between Science and Theology

### The Synthetic Principle

- Scripture interprets Scripture
- Be careful about basing a doctrine on only one verse
- Scripture harmonizes (use cross-references in study Bibles)
- "Contradictions" usually due to context and/or historical factors (ie genealogies)



(See Genesis 19: 1-29)

02-25-2003

SOMETIMES I MISS THE OLD TESTAMENT DAYS  
WHEN WE COULD SMITE THEM FOR THAT KIND  
OF BEHAVIOR

# Calling all stations: Introduction to The Johannine Cosmology

Victor Christianto, MTh., DDiv., Independent researcher, [www.sci4God.com](http://www.sci4God.com)

Text: John 1:1-18

## Prologue

Science has become a religion of its own. Universities and colleges all around the world are its temples where people come to worship the "gods" of science. For example, the "gods" in physics include Planck, Einstein, Bohr, Schrodinger, Dirac, Heisenberg etc. There were many people who refused to worship these gods, and they were expelled or dismissed as "rebels" or "dissidents". The worst kind of those rebels are called "heretics." Here allow me to tell you a story of a dissident.

## Early days

I should admit here: that for some time in the past I have fallen to become such an idol worshipper, especially in the period between 1997-2014. In 1996 I bought a book edited by Wojciech Zurek with title "Complexity, Entropy and the Physics of Information", published by Santa Fe Institute (Addison-Wesley, 1991). Since then, practically I was very enthusiastic on various interpretations of Quantum Mechanics. I then read several books on QM.

After around six years of independent study in wave mechanics, I decided that time has come to put my ideas in writing. In 2002 I submitted my first paper to Apeiron editor, but it was rejected soon. I forgot about the title. Then I put more effort to write a quite speculative paper, based on hypothesis that the solar system can be modelled as quantized vortices of superfluid helium. Using this new model which is essentially a Bohr model of atom applied to solar system, I made a desperate effort in the form of two things: (a) predicting a brown dwarf companion of the Sun with negative mass about equal with the Sun, (b) predicting three undiscovered planets in the outer orbits of the Solar system, beyond Pluto orbit (at the time of writing, no such planet was discovered by astronomers).

The reviewer of this paper was Prof. Robert Kiehn, and he was so kind to read my often confusing English expressions. I am indebted to him, because he was the first person who gave encouragement to my endeavor. After editing and rewriting this 43-pages paper for about one year and a half, finally the editor of Apeiron received my paper for publication. It was published in January 2004 (see <http://redshift.vif.com>)

To my surprise, around four months later I read an online news telling that a new planetoid beyond pluto was found, dubbed as Sedna. It was discovered by Michael Brown and his team of astronomers from Caltech. I then rushed to my old desktop pc to calculate its orbit and to compare it with my prediction back in 2002, and I found that Sedna's orbit is very close to my prediction. Then I quickly wrote a paper discussing Sedna finding. This paper was received and published in Apeiron's July 2004 edition.

After what may be called a beginner's luck, I felt so motivated to continue my investigation on

quantum mechanics, especially in deterministic QM with quantum vortice interpretation of wavefunction. These early period investigations have been documented in several books and papers, including in Annales de la Fondation Louis de Broglie, 2006. (Check the homepage of Prof. Florentin Smarandache).

Over those early years, I have learned from many interesting persons, including but not limited to Prof. Brian Josephson, Prof. Carlos Castro, Prof. Mat Pitkanen, Dr. Jack Sarfatti, Prof. Florentin Smarandache, Dmitri Rabounski etc. Almost all those people whom I knew via email conversations have one similarity, i.e. they were dissidents and were completely or partially blacklisted by [www.arxiv.org](http://www.arxiv.org), the online "temple" of mainstream physics, especially it is a place to worship high energy physics.\*\*

In 2005, through email discussion, Prof. Brian Josephson (Noble laureate) suggested a name for our new alternative preprint server, that is [www.sciprint.org](http://www.sciprint.org). Since may 2005, then I became administrator of [www.sciprint.org](http://www.sciprint.org). I administered [sciprint.org](http://sciprint.org) beside my daily profession until 2009 when for some reasons, my admin password was compromised, so I cannot continue administering that preprint server.

Fortunately, a colleague told me that a new preprint service has existed, i.e. [www.vixra.org](http://www.vixra.org), administered by Dr. Phil Gibbs ("vixra" is "arxiv" read backward). Then I asked him whether he would like to host our files in [sciprint.org](http://sciprint.org). After he accepted, then I tried my best to recover and send these files of almost 300MB to a friend in Germany, who then downloaded the files and burned those files into a disc. Thereafter he mailed the disc to Phil Gibbs in England. That is why until now you will find some papers in [vixra.org](http://vixra.org) with small notes that they were recovered from [www.sciprint.org](http://www.sciprint.org).

(Note: If you want to verify this story of [sciprint.org](http://sciprint.org), you can contact Prof. Carlos Castro Perelman at [perelmanc@hotmail.com](mailto:perelmanc@hotmail.com), and Prof. Florentin Smarandache at [fsmarandache@gmail.com](mailto:fsmarandache@gmail.com))

### **Moment of enlightenment**

Around October 2009, in a prayer Jesus Christ called me to become His servant, and one of His instruction was I must return to my hometown. Then I went to my hometown in East Java, and began to serve in a local church where I grew up with. In 2011, I decided to equip myself with a formal education in theology. In those years I was quite busy with other things, so practically I left behind science stuff. I guess I should leave science behind me, that at a point I did not answer back when Prof. Florentin Smarandache called me in phone.

But gradually I found a balance in my life, so I tried to write some papers again since. I also compiled a few books on astrophysics with Prof. Florentin Smarandache.

Then I came to a point that my theology education was almost completed, so I can return to former fields of interest: cosmology and astrophysics.

Around May 2014, when I was travelling in a bus, then a thought came to me: what is the power behind a worship song? It came to me that it was frequency which has power to turn even the walls of Jericho to ruining. This was my first moment of enlightenment.

The second moment came around that time (may-june), when I found some papers by Dr. George Shpenkov (<http://shpenkov.janmax.com>), who was able to show convincingly that there are many



errors with Schrodinger equation. So I concluded that it was not only the mistake of Max Born who introduced probability interpretation of quantum mechanics, but Schrodinger himself made serious errors too in deriving his then famous equation.

Then I wrote a paper reviewing Schrodinger equation and classical wave equation, that paper was published in Prespacetime Journal, July 2014. Although I agree with Dr. Shpenkov that classical wave equation is better than the Schrodinger equation, it does not mean that I agree with his dialectic philosophy.

Gradually, I came to think that frequency and wave were also important at the time of creation, therefore I began my study into an interpretation of Cosmic Christology through the Johannine prologue (John 1:1-18).

### **Cosmic Christology**

Cosmic Christology is a basic Christian doctrine that was often debated during the past 40 years. Cosmic Christology is deeply related with the Cosmic Christ who is the universal but inclusive Savior. (1)

The biblical teaching on Cosmic Christology was a legacy of the faith of the Early Church, and this teaching was told in Jesus hymn in the Johannine prologue and the prologue of St. Paul's letter to Colossians (John 1:1-18; Col. 1:15-20), see also Christ hymn in letter to Philippians 2:6-11.

Besides, there are also some texts which were often referred in the Old Testament; these texts indicate the personified Wisdom of God, who acts as the agent of creation. And this character was then used for Jesus Christ. (Proverbs 8:22-31; Wisdom of Solomon 8:4-6; Sirakh 1:4-9).

There are also extra-biblical sources which can be referred, such as the Son of God text of Qumran (Bereh di El, 4Q246). Such a text indicates messianic hope of Essene people, and that hope was very close to the faith of Early Church toward Jesus Christ.

### **Several implications**

That is why, one of my focus of research in the past 3 years until now was to find implications of Cosmic Christology in the context of physics and cosmology. That idea was motivated by the fact that there has been a serious tension between science and theology, after they were separated especially since Galileo Galilei was put into isolation by the Church. One of the books which has inspired me was by Tollefsen which discusses Christocentric Cosmology.(3)

My investigation has led to several hypotheses, five of them will be discussed shortly below:

(a) Jesus Christ is the Word of God, and He is the agent of God during the creation of the Universe. Because word means voice, and voice means sound, and sound means wave and frequency, then this thought led us to a hypothesis of the existence of primordial sound in the early time of creation (6). Perhaps such a primordial sound will be verified later by Cosmic microwave background radiation observation (CMBR). See for example (8).

(b) another thought is that (electromagnetic) wave and frequency are very influential to begin each life of creatures. It appears that such a hypothesis was supported by experiments carried out by Prof. Luc Montagnier et al on the wave nature of DNA; (4)(9)

(c) that thought on the wave nature of the Universe also led to a wave model of superconductor

electrodynamics. In physics, conductor is matter which can transmit electric current, while superconductor is matter which can transmit electric current at zero resistance. My hypothese on superconductor electrodynamics has been presented in a paper published last year in IJET (5); (d) frequency may also be used to develop a novel approach of cancer therapy (7); (e) the light particle which was dubbed as photon has also the wave character. The photon wave can be loaded with information (bits), and according to some experiments on lab, such a method is potentially capable to improve the wireless internet capacity significantly, possibly at the order of 100-160 Gigabits per second. But this method needs to develop further before it can be used as practical technology (10).

(Note: if the readers are interested to carry out further investigations on one or more of the above directions, you can contact me at email: victorchristianto@gmail.com.\*)

### **Concluding remarks**

I hope that I have told my story with clarity. It should be clear that I began as a dissident in the same temple of Quantum Mechanics, but gradually I turned out to refuse to worship those "gods" of mainstream physics. Instead, I decided to develop a new path where science and theology can meet.

Hopefully the above story will inspire many more young students and graduate students alike to return to God, instead of wandering around from one temple to another, only to find many kinds of deception over and over again.

I also wish that I already presented my interpretation on Cosmic Christology based on the Johannine prologue, albeit not a complete one.

As a last remark, allow me to cite Psalm 19:1-3

- 1 "The heavens declare the glory of God; and the firmament sheweth his handywork.
- 2 Day unto day uttereth speech, and night unto night sheweth knowledge.
- 3 There is no speech nor language, where their voice is not heard. "(KJV)

May God be with you.

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VC

### **Postscript:**

\*url: [http://researchgate.net/profile/Victor\\_Christianto](http://researchgate.net/profile/Victor_Christianto)

\*\*I sincerely do hope that someday [arxiv.org](http://arxiv.org) administrators will change their draconian policy and cumbersome submitting procedures. Fortunately there is news that they are now conducting an online survey (dated 6th april 2016), so I hope that many dissidents like me can submit papers without being rejected by [arxiv.org](http://arxiv.org).

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# A Theo-Cymatic reading of Prolegomena of St. John's Gospel

Victor Christiano<sup>2</sup>

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## Abstract

The science of cymatics, the study of visible sound, is beginning to yield clues to one of the most challenging questions in science: what triggered the creation of life on earth? The hypothetical model we have developed was inspired by ancient traditions and demonstrates that sound and cymatic forces could have worked together to become the dynamic force that created the first stirrings of life and also the Universe.

## Guiding Text: John 1:1-5

1. In the beginning was the Word, and the Word was with God, and the Word was God.
- 2 The same was in the beginning with God.
- 3 All things were made by him; and without him was not any thing made that was made.
- 4 In him was life; and the life was the light of men.
- 5 And the light shineth in darkness; and the darkness comprehended it not.

## Prologue

Spiritual traditions from many cultures speak of sound as having been responsible for the creation of life.

For instance, the Celts of old believed that the world was upheld and sustained by a single all-embracing melody: "Oran Môr," they called it, the Great Music, and all creation was part of it.

Perhaps this is why Celtic music possesses the power to move us in unexpected ways - it touches

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<sup>2</sup> Founder of Second Coming Institute, [www.sci4God.com](http://www.sci4God.com). url: [http://researchgate.net/profile/Victor\\_Christianto](http://researchgate.net/profile/Victor_Christianto)

that place deep in our hearts where legends still live, and we hear again the strains of the Ancient Song. (Stephen R. Lawhead, 1996) See Ref. (2).

The words of St. John's gospel are also a good example:(3)

"In the beginning the Word already existed. The Word was with God, and the Word was God."

['Word' meaning 'sound']

The science of cymatics, the study of visible sound, is beginning to yield clues to one of the most challenging questions in science: what triggered the creation of life on earth? The hypothetical model we have developed was inspired by ancient traditions and demonstrates that sound and cymatic forces could have worked together to become the dynamic force that created the first stirrings of life and also the Universe.(3)

The proposed model discussed herein may resonate with the concept of harmony of the spheres as outlined in Johannes Kepler's first monumental work: "*Mysterium Cosmographicum*."(22)

### **A theo-cymatic interpretation of John 1:1**

Cosmic Christology is a basic Christian doctrine that was often debated during the past 40 years.

Cosmic Christology is deeply related with the Cosmic Christ who is the universal but inclusive Savior. (6)

The biblical teaching on Cosmic Christology was a legacy of the faith of the Early Church, and this teaching was told in Jesus hymn in the Johannine prologue and the prologue of St. Paul's letter to Colossians (John 1:1-18; Col. 1:15-20), see also Christ hymn in letter to Philippians 2:6-11.

Besides, there are also some texts which were often cited from the Old Testament; these texts indicate the personified Wisdom of God, who acts as the agent of creation. And this character was

then used for Jesus Christ. (Proverbs 8:22-31; Wisdom of Solomon 8:4-6; Sirakh 1:4-9).

There are also extra-biblical sources which can be referred to, such as "the Son of God" text of Qumran (Bereh di El, 4Q246). Such a text indicates that there was a kind of messianic hope of Essene people, and that hope was very close to the faith of Early Church toward Jesus Christ.

### **Several implications**

That is why, one of my focus of research in the past 3 years until now was to find implications of Cosmic Christology in the context of physics and cosmology. That idea was motivated by the fact that there has been a serious tension between science and theology, after they were separated especially since Galileo Galilei was put into isolation by the Church. One of the books which has inspired me was by Tollefsen which discusses Christocentric Cosmology. See Thorstein Theodor Tollefsen: *The Christocentric Cosmology of St. Maximus the Confessor* (8).

My investigation has led to several hypotheses, five of them will be discussed shortly below:

(a) Jesus Christ is the Word of God, and He is the agent of God during the creation of the Universe.

Because word means voice, and voice means sound, and sound means wave and frequency, then this thought led us to a hypothesis of the existence of primordial sound in the early time of creation

(6). It is known by many cosmologists that there is abundance of relic cosmic sound wave from early epoch of creation. Perhaps such a primordial sound will be verified later by Cosmic microwave background radiation observation (CMBR). See for example (11).

(b) another thought is that (electromagnetic) wave and frequency are very influential to begin each life of creatures. It appears that such a hypothesis was supported by experiments carried out by Prof. Luc Montagnier et al on the wave nature of DNA; (13)(14).

(c) that thought on the wave nature of the Universe also led to a wave model of superconductor

electrodynamics. In physics, conductor is matter which can transmit electric current, while superconductor is matter which can transmit electric current at zero resistance. My hypothesis on superconductor electrodynamics has been discussed in a paper published last year in IJET (10);

(d) frequency may also be used to develop a novel approach of cancer therapy (12).

(e) the light particle which was dubbed as photon has also the wave character. The photon wave can be loaded with information (bits), and according to some experiments on lab, such a method is potentially capable to improve the wireless internet capacity significantly, possibly at the order of 100-160 Gigabits per second. But this method needs to be developed further before it can be used as practical technology (15).

(Note: if the readers are interested to carry out further investigations on one or more of the above directions, you can contact me at email: [victorchristianto@gmail.com](mailto:victorchristianto@gmail.com).\*)

### **Concluding remarks**

For further discussion, there is my recent book discussing a new cosmology model starting from a fractal vibrating string. (fractal vibrating string is fractal generalization of classical wave equation of sound). See (5).

The basic idea of this book is that it is possible to develop a new cosmology model inspired by Cosmic Christology. In other words, Christology is not a separate matter from science. From Christology as starting point, I began to develop various approaches based on wave physics, which I call: “fractal vibrating string.” Through this new cosmology model, I wish to offer a new path for dialogue between science and theology. Moreover, it offers a new and fresh approach to understand the bible in this modern time.

I also wish that I already presented my interpretation on Cosmic Christology based on the Johannine prologue, albeit not a complete one.

As a last remark, allow me to cite Psalm 19:1-3

- 1 "The heavens declare the glory of God; and the firmament sheweth his handywork.
- 2 Day unto day uttereth speech, and night unto night sheweth knowledge.
- 3 There is no speech nor language, where their voice is not heard. "(KJV)

May God be with you. *Soli Deo Gloria.*

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VC

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## **APPENDIX: A reflection of my journey over the past 20 years or so**

### **Early days**

I should admit here: that for some time in the past I have fallen to become such an idol worshipper, especially in the period between 1997-2014. In 1996 I bought a book edited by Wojciech Zurek with title "Complexity, Entropy and the Physics of Information", published by Santa Fe Institute (Addison-Wesley, 1991). Since then, practically I was very enthusiastic on various interpretations of Quantum Mechanics. I then read several books on QM, including Alistair Rae's book. (15) After around six years of independent study in wave mechanics, I decided that time has come to put my ideas in writing. In 2002 I submitted my first paper to Apeiron editor, but it was rejected soon. I forgot about the title. Then I put more effort to write a quite speculative paper, based on hypothesis that the solar system can be modelled as quantized vortices of superfluid helium. Using this new model which is essentially a Bohr model of atom applied to solar system, I made a

desperate effort in the form of two things: (a) predicting a brown dwarf companion of the Sun with negative mass about equal with the Sun, (b) predicting three undiscovered planets in the outer orbits of the Solar system, beyond Pluto orbit (at the time of writing, no such planet was discovered by astronomers).

The reviewer of this paper was Prof. Robert Kiehn, and he was so kind to read my often confusing English expressions. I am indebted to him, because he was the first person who gave encouragement to my endeavor. After editing and rewriting this 43-pages paper for about one year and a half, finally the editor of Apeiron received my paper for publication. It was published in January 2004 (12).

To my surprise, around four months later I read an online news telling that a new planetoid beyond pluto was found, dubbed as Sedna. It was discovered by Michael Brown and his team of astronomers from Caltech. I then rushed to my old desktop pc to calculate its orbit and to compare it with my prediction back in 2002, and I found that Sedna's orbit is very close to my prediction. Then I quickly wrote a paper discussing Sedna finding. This paper was received and published in Apeiron's July 2004 edition (13). See also an updated paper (14).

After what may be called a beginner's luck, I felt so motivated to continue my investigation on quantum mechanics, especially in deterministic QM with quantum vortice interpretation of wavefunction. These early period investigations have been documented in several books and papers\*\*\*, including in Annales de la Fondation Louis de Broglie, 2006 (11).

Over those early years, I have learned from many interesting persons, including but not limited to Prof. Brian Josephson, Prof. Carlos Castro, Prof. Mat Pitkanen, Dr. Jack Sarfatti, Prof. Florentin Smarandache, Dmitri Rabounski etc. Almost all those people whom I knew via email conversations have one similarity, i.e. they were dissidents and were completely or partially blacklisted by [www.arxiv.org](http://www.arxiv.org),\*\*\*\* the online "temple" of mainstream physics, especially it is a

place to worship high energy physics.\*\*

In 2005, through email discussion, Prof. Brian Josephson (Noble laureate) suggested a name for our new alternative preprint server, that is [www.sciprint.org](http://www.sciprint.org). Since may 2005, then I became administrator of [www.sciprint.org](http://www.sciprint.org). I administered [sciprint.org](http://sciprint.org) beside my daily profession until 2009 when for some reasons, my admin password was compromised, so I cannot continue administering that preprint server.

Fortunately, a colleague told me that a new preprint service has just come to appear, i.e. [www.vixra.org](http://www.vixra.org), administered by Dr. Phil Gibbs ("vixra" is "arxiv" read backward). Then I asked him whether he would like to host our files in [sciprint.org](http://sciprint.org). After he accepted, then I tried my best to recover and send these files of almost 300MB to a friend in Germany, who then downloaded the files and burned those files into a disc. Thereafter he mailed the disc to Phil Gibbs in England. That is why until now you will find some papers in [vixra.org](http://vixra.org) with small notes that they were recovered from [www.sciprint.org](http://www.sciprint.org).

(Note: If you want to verify this story of [sciprint.org](http://sciprint.org), you can contact Prof. Carlos Castro Perelman at [perelmanc@hotmail.com](mailto:perelmanc@hotmail.com), or Prof. Florentin Smarandache at [fsmarandache@gmail.com](mailto:fsmarandache@gmail.com))\*\*\*

### **Moment of enlightenment**

Around October 2009, in a prayer Jesus Christ called me to become His servant, and one of His instruction was I must return to my hometown. Then I went to my hometown in East Java, and began to serve in a local church where I grew up with. In 2011, I decided to equip myself with a formal education in theology. In those years I was quite busy with other things, so practically I left behind science stuff. I guess I should leave science behind me, that at a point I did not answer back when Prof. Florentin Smarandache called me in phone.

But gradually I found a balance in my life, so I tried to write some papers again since. I also compiled a few books on astrophysics with Prof. Florentin Smarandache.

Then I came to a point that my theology education was almost completed, so I can return to former fields of interest: cosmology and astrophysics.

Around May 2014, when I was travelling in a bus, then a thought came to me: what is the power behind a worship song? It came to me that it was frequency which has power to turn even the walls of Jericho to ruining. This was my first moment of enlightenment.

The second moment came around that time (may-june), when I found some papers by Dr. George Shpenkov (<http://shpenkov.janmax.com>), who was able to show convincingly that there are many errors with Schrodinger equation. So I concluded that it was not only the mistake of Max Born who introduced probability interpretation of quantum mechanics, but Schrodinger himself made serious errors too in deriving his then famous equation.

Then I wrote a paper reviewing Schrodinger equation and classical wave equation, that paper was published in Prespacetime Journal, july 2014 (16). Although I agree with Dr. Shpenkov that classical wave equation is better than the Schrodinger equation, it does not mean that I agree with his dialectic philosophy.

Gradually, I came to think that frequency and wave were also important at the time of creation, therefore I began my study into an interpretation of Cosmic Christology through the Johannine prologue (John 1:1-18).

I hope that I have told my story with clarity. It should be clear that I began as a dissident in the same temple of Quantum Mechanics, but gradually I turned out to refuse to worship those "gods" of mainstream physics. Instead, I decided to develop a new path where science and theology can meet.

Hopefully the above story will inspire many more young students and graduate students alike to

return to God, instead of wandering around from one temple to another, only to find many kinds of deception over and over again.

**Postscript:**

\*url: [http://researchgate.net/profile/Victor\\_Christianto](http://researchgate.net/profile/Victor_Christianto)

\*\*I sincerely do hope that someday [arxiv.org](http://arxiv.org) administrators will change their draconian policy and cumbersome submitting procedures. Fortunately there is news that they are now conducting an online survey (dated 6th april 2016), so I hope that many dissidents like me can submit papers without being rejected by [arxiv.org](http://arxiv.org).

\*\*\*Check our books in pdf version at the homepage of Prof. Florentin Smarandache,

<http://fs.gallup.unm.edu/FlorentinSmarandache.htm>

\*\*\*\*Check <http://www.archivefreedom.org>, see also Against the Tide book at

<http://vixra.org/abs/0909.0002>

# **An outline of new Cosmology Model inspired by Cosmic Christology of the Johannine Prologue**

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## **Abstract**

This article discusses an outline of a new Cosmology model based on my interpretation of the Johannine Prologue. The objective of this article is to propose a new Cosmology model which is biblically sound and scientifically verifiable, inspired by Cosmic Christology of the Johannine Prologue. Because this is only an outline, it should be obvious that this is not a complete and working cosmology model. More research is needed to develop it further and also to test this idea. New experiments may be expected in the future to verify this proposal.

## **Introduction**

Despite many efforts in the literature to discuss various cosmology models from biblical perspectives,<sup>4</sup> it is a common view held by many scholars that biblical view (Creation) and the scientific view (Big Bang) cannot be reconciled. Therefore most scholars simply reject biblical teaching as unscientific while most theologians simply ignore the Big Bang theories. Of course, there are also some variations of Creation hypothesis, such as the assertion that the Universe was created by God not in 6x24 hours, but in several thousand years. Another new theory is called as Intelligent Design, saying that the observed complicated structure both in microphysics (DNA,

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<sup>3</sup> Independent Researcher and administrator of [www.sciprint.org](http://www.sciprint.org). URL: [http://researchgate.net/profile/Victor\\_Christianto](http://researchgate.net/profile/Victor_Christianto)

<sup>4</sup> See for instance: Willem B. Drees. *Beyond the Big Bang: Quantum Cosmologies and God*. La Salle, Illinois: Open Court Publ. Co., 1990

RNA etc) and macrophysics (galaxy, galaxy clusters, planets, stars) seems to point to a Supreme Creator. Therefore we need a new Cosmology model which is able to reconcile both the scientific finding and also the biblical teaching.

### **Question 1: Can we find a biblically sound model of Cosmology?**

Traditionally the battle between theologians in one side and scientific world in another side seems to be almost irreconcilable. Even since the days of Galileo Galilei the dispute was quite harsh, with tendency of denying each other side.<sup>5</sup>

In modern days, the scientific finding of expanding galaxies by Edwin Hubble led to the Expanding Universe theory as suggested A. Friedman and G. Lemaitre. Lemaitre himself was a devoted Catholic priest, but he carefully distinguished between the point of beginning and the point of Creation. However, he seemed to assert that the Expanding Universe suggests a point of singularity or the beginning of time, which later it is called as the Big Bang.

In the context of scientific theories, we should admit that initially Big Bang Theory was made as a result of backward extrapolation of the Hubble law. The Hubble law itself only asserts that galaxies move away from each other. And if this law was extrapolated back to the origin of time, then we find that there should be a singularity which then was called as Big Bang.

However, the Big Bang or singularity itself is not free of criticism, both from steady state perspective and also from the rigorous theory of singularity itself. This directs us to a new question which will be discussed subsequently: Can the initial singularity be removed from cosmology models?

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<sup>5</sup> George V. Coyne & Michael Heller. *A Comprehensible Universe*. New York: Springer-Verlag New York, 2008.



Provided the above question concerning initial singularity can be answered, then my answer to the first question is positive: yes, we can propose a new biblically sound Cosmology model with intention to reconcile biblical teaching with scientific findings.

## **Question 2: Can the initial singularity be removed from cosmology models?**

This question has been discussed in a report by Prof. Michael Heller, a cosmologist and theologian from Warsaw, Poland. In a paper for Templeton Prize, he discusses this problem: Cosmological Singularity and the Creation of the Universe.<sup>6</sup> He discusses among other things, how singularity is actually model dependent, and in different cosmology models the initial singularity can be removed. In other words, the notion of Big Bang is just a special case of the chosen space-time metric.

In this regards, I have brought this issue in a question at researchgate.net forum, and there are many comments from other scholars. To summarize their views, it seems that they agree with Prof. Heller that the initial singularity can be removed in different cosmology models. Some references in this context have been cited by contributors to that forum.<sup>7</sup>

A short summary of Dabrowski and Marosek<sup>8</sup> will be made here: Varying physical constant cosmologies were claimed to solve standard cosmological problems such as the horizon, the flatness and the  $\Lambda$ -problem. But one of the most intriguing problems in cosmology is the problem

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<sup>6</sup> Michael Heller. Cosmological Singularity and the Creation of the Universe. <http://www.templetonprize.org/pdfs/93-113.pdf>

<sup>7</sup> Edward Belbruno. On the regularizability of the Big Bang Singularity (2012). [arxiv.org/1205.1474v2.pdf](http://arxiv.org/1205.1474v2.pdf)

<sup>8</sup> Mariusz P. Dabrowski & Konrad Marosek. Regularizing cosmological singularities by varying physical constants (2012). [arxiv.org/1207.4038v4.pdf](http://arxiv.org/1207.4038v4.pdf)

of singularities. In their paper, they suggest yet another possible application of theories suggesting varying physical constants: i.e. to solve singularity problem.<sup>9</sup>

In Belbruno's paper, it is shown that dynamical flow near the big bang singularity can be reduced to a central force field, when modeled by an anisotropic Friedman equation, under a number of assumptions. Then he applies the McGehee transformation to the central force field, yielding unique branch extensions of solutions through  $a=0$ .<sup>10</sup>

If it is true that the initial singularity is model dependent, then it seems that the Big Bang can be removed too. In other words, there is a hope to describe the Universe as free from initial singularity.

### **Question 3: Can we model the Universe based on classical wave equation?**

First, I shall recall a study conducted by some researchers from Observatoire de Paris – Meudon several years ago which suggests that vibration of early Universe can be used to determine the shape of the Universe. This study is led by Prof. J. Luminet.<sup>11</sup> What is interesting here is that they solved Helmholtz equation in spherical case to find out the vibration of early Universe. And we know that Helmholtz equation implies classical wave equation, therefore by deduction we can infer that it seems also possible to use Helmholtz equation to determine the vibration of early universe, and perhaps it can be related either to CMBR oscillation or Sakharov oscillation.<sup>12</sup> However, we should admit that oscillation of early universe has not received much attention so far, even though

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<sup>9</sup> Ibid.

<sup>10</sup> Edward Belbruno. On the regularizability of the Big Bang Singularity (2012). [arxiv.org/1205.1474v2.pdf](http://arxiv.org/1205.1474v2.pdf)

<sup>11</sup> URL: <http://www.obspm.fr>

<sup>12</sup> L.P. Grishchuk. Cosmological Sakharov oscillations and Quantum Mechanics of the early Universe (2011). arXiv: 1106.5205 [gr-qc]

Sakharov (acoustic) oscillation is well known among cosmologists. Figure 1 below depicts CMB temperature anisotropies:

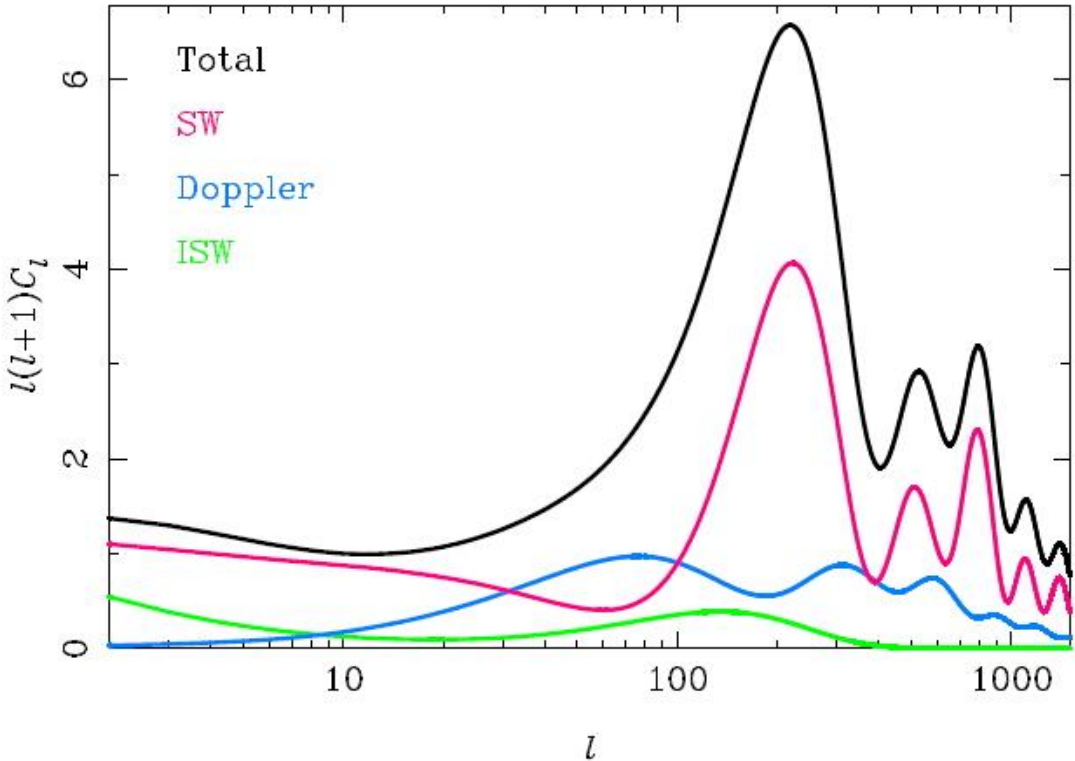


Figure 1. Various contributions to CMB temperature anisotropies [7, p.13].

Second, Hawking-Hartle wavefunction equation and Wheeler-DeWitt equation are two well-known equations for describing quantum scenario for the birth of the Universe (the quantum birth). These two equations are based on extrapolating wave mechanical arguments to the Universe scale, however both of them are lacking observability so far and they cannot explain any observation (data). Therefore it is fair enough to say that both equations are defective and useless equations for describing physical phenomena at large scales. Nonetheless, these equations indicate that it seems worth to study the wave nature of the Universe. Therefore, while we do not advocate the use of H-H or WDW equation, we still can use their approach to model the wave nature of the Universe.

Third, my own personal study since 2002 can be summarized as follows: For once in my life, I believed that Quantum Mechanics (QM) is the sought answer for almost all physics problems, not only for atomic and particle world but also for astrophysics scale. For cosmologists, there is Wheeler-DeWitt equation which is borrowing quantum mechanical concept to study early period of the Universe. But everybody knows that WDW equation does not predict anything, so I tried to find another way.

Before I continue, firstly allow me to admit something: I should admit that I was very interested in quantum theory especially the wave mechanics since I read a book published by Santa Fe Institute/Addison-Wesley and edited by Wojciech H. Zurek with title: *Complexity, Entropy and the Physics of Information*.<sup>13</sup> I bought that book in 1996, and then studied it in my spare time. After that, I became interested in the wave mechanical model of solar system (planetary orbits) since I found a paper by Laurent Nottale from Paris. But I found that Nottale's Scale Relativity method is quite complicated, therefore I tried to derive his result in a simpler way (based on some quantum mechanics textbooks that I read at the time).

It took some years until I found time and energy to put my ideas in written form and then finally I can publish my first paper in *Apeiron*, January 2004.<sup>14</sup> In that paper, I discuss quantization of planetary orbits in solar system based on Bohr's quantization of angular momentum. I also predicted three planetoids beyond orbit of Pluto; and later on those 3 planetoids have been discovered subsequently by several astronomers including Dr. Michael Brown from Caltech I (around 2004-2005). After that, I published many more papers discussing various aspects of quantum/wave

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<sup>13</sup> Zurek, Wojciech H. ed. *Complexity, Entropy and the Physics of Information*. Santa Fe Institute/Addison-Wesley Publ., 1990

<sup>14</sup> Christianto, V. A Cantorian Superfluid Vortex and the Quantization of Planetary Motion. *Apeiron* Vol. 11 No. 1, January 2004, URL: <http://redshift.vif.com>.

mechanics, but the basic view remains the same: that I was quite convinced that the quantum mechanics is a wonderful theory (like what many physicists used to think nowadays), although it is perhaps incomplete. In particular I was interested in the quantized vortices model of planetary orbits, because I found that quantized vortices correspond neatly to Bohr's quantization rule. Therefore, it would suggest that we can think that quantization in solar system is a result of quantized helium vortices.

But since 2009, I took a rather different view, which is to find possible connection between quantum mechanics and classical mechanics. That view was expressed in my 2009 paper together with Prof. Florentin Smarandache with title: *A derivation of Maxwell's equations in quaternion space*. In that paper we managed to derive a quaternionic form of Maxwell equations, based on Dirac-Gersten's decomposition method.<sup>15</sup> Since then, I sought further on how to connect classical mechanics and wave mechanics. But still, my basic view is that the wave mechanics eventually supersede classical mechanics. (During the period of 2005 until 2013, I have published no less than 9 books together with Florentin Smarandache and others.) For an introduction to the relationship between classical and quantum theory, see for instance Landsman.<sup>16</sup>

That view I hold until March 2014, when I found some papers written by Dr. George Shpenkov from googling. He explained among other things that there are some weaknesses of wave mechanics especially Schrödinger's equation. I sent him several emails and he emailed me back with some papers and books. After studying his papers and books, I decided that the classical wave

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<sup>15</sup> Christianto, V., & Smarandache, F. A derivation of Maxwell's equations in quaternion space. *Progress in Physics*, 2009. URL: <http://www.ptep-online.com>

<sup>16</sup> Landsman, N.P. *Between classical and quantum* (2005). arXiv:quant-ph/0506082.

equation can complement wave mechanics, and even they are compatible as indicated for instance by the exact correspondence between Poisson bracket and quantum commutator bracket.

In short, I am now convinced that in certain cases like planetary orbits, periodic table of elements, and energy levels of hydrogen, the classical wave equation is proved to be equal or even far better than quantum model.

Now, I think it is the right time to study whether the classical wave equation can also be generalized to describe vibration and other properties of the Universe at large scale. I propose to use a new framework called “*fractal vibrating string*” in order to generalize the classical wave equation. As far as I know, such a fractal vibrating string concept has not been discussed elsewhere before to study astrophysics and cosmology phenomena.

### **The proposed solution: A Cosmology model inspired by the Johannine Prologue**

As we know there are two main paradigms concerning the origin of the Universe: the first is Big-Bang Theory, and the other is Creation paradigm. But those two main paradigms each have their problems, for instance Big Bang Theory assumes that the first explosion was triggered by chance alone, therefore it says that everything emerged out of vacuum fluctuation caused by pure statistical chance. By doing so, its proponents want to avoid the role of the *Prime Cause* (God). Of course there are also other propositions such as the Steady State theory or Cyclical universe, but they do not form opinion of the majority of people in the world.<sup>17</sup>

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<sup>17</sup> Andrew Zimmerman Jones & Daniel Robbins. *String Theory for Dummies*. Indianapolis, Indiana: Wiley Publishing Inc., 2010. P. 169.

On the other side, the Creation Theory says that the Universe was created by God in 6x24 hours according to Genesis chapter 1, although a variation of this theory says that it is possible that God created the Universe in longer period of thousands of years or even billions of years. But such a proposition seems to be not supported by Biblical texts.

To overcome the weaknesses of those main paradigms, I will outline here another choice, namely that the Universe was created by Logos (Christ in His pre-existence). This is in accordance with the Prolegomena of the Gospel of John, which says that the Logos was there in the beginning (John 1:1).<sup>18</sup>

This famous Prolegomena of the Gospel of John may be interpreted that everything comes from the Word of God, and since Word means Voice, and Voice means sound, and sound can be related to wave, vibration and frequency, then it seems quite straightforward to think that everything in this universe consists of vibration and frequency too. While the above analogy with the Gospel of John is suggested by this writer, such a view that everything is related to wave and frequency has been proposed by George Shpenkov.<sup>19</sup> He wrote as follows:

“A new physics paradigm that we have accepted and follow in all our works is based on: (1) Dialectical philosophy and dialectical logic; (2) The postulate on the *wave nature* of all phenomena and objects in the Universe.”<sup>20</sup>

This writer would like to propose an interpretation i.e. if Genesis 1:1-2 is interpreted according to John 1:1, then it seems we can arrive at a different picture of creation, that is the Universe was

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<sup>18</sup> Victor Christianto. An Outline of Cosmology based on interpretation of The Johannine Prologue. *Bull. Soc. Math. Services and Standards*. Vol. 3 No. 3 (2014) URL: [www.scipress.com](http://www.scipress.com)

<sup>19</sup> George P. Shpenkov. *Dialectical View of the World: The Wave Model (Selected Lectures)*. Volume I: Philosophical and Mathematical Background (2013). URL: <http://shpenkov.janmax.com/Vol.1.Dialectics.pdf>

<sup>20</sup> Ibid, p.7.

created by the Word of God (Greek: Logos, Aramaic: Memra) with the power of the Spirit of God.<sup>21</sup> And because the Logos is “word”, then it could mean voice or sound, and if sound can be interpreted as wave and frequency, then it seems quite logical to think that everything in the Universe are formed of wave and frequency (vibration). Therefore it is important to work on classical wave equation (vibrating string) instead of Schrödinger equation to model wave nature of atoms and molecules, partly because the *wave mechanics is unrealistic* model.<sup>22</sup>

A theory which supports this hypothesis is George Shpenkov’s interpretation on the classical wave equation, which leads to the following conjectures: a. *shell-nodal* model of atoms and molecules; b. a periodic table of elements which is close to periodic table of Mendeleev. And this writer proposed a further step, i.e. to extend further the classical wave equation to become *fractal vibrating string*, as mentioned briefly in a recent paper.<sup>23</sup>

Philosophically speaking, the fractal vibrating string has similarities with string theory, because both of them are based on the same hypothesis that particles come out of frequency and vibration, although they also have major difference that is string theorists must work with 26 dimensions: “... the universe has a total of 26 dimensions in string theory, as opposed to the four dimensions it possesses under Einstein’s special and general relativity theories”.<sup>24</sup> Another major difference is that so far string theory has no single prediction which can be compared with observation or

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<sup>21</sup> Christianto, V. An Outline of Cosmology based on interpretation of The Johannine Prologue. *Bull. Soc. Math. Services and Standards*. Vol. 3 No. 3 (2014) URL: [www.scipress.com](http://www.scipress.com)

<sup>22</sup> Christianto, V. A review on Schrödinger equation & classical wave equation. *Prespacetime Journal* Vol.5 No. 5, May 2014. URL: <http://www.prespacetime.com> or [http://www.vixra.org/author/Victor\\_Christianto](http://www.vixra.org/author/Victor_Christianto)

<sup>23</sup> Christianto, V. An Outline of Cosmology based on interpretation of The Johannine Prologue. *Bull. Soc. Math. Services and Standards*. Vol. 3 No. 3 (2014) URL: [www.scipress.com](http://www.scipress.com)

<sup>24</sup> Jones, Andrew Zimmerman & Daniel Robbins. *String Theory for Dummies*. Indianapolis, Indiana: Wiley Publishing Inc., 2010. P. 169.



experiment, while the proposed fractal vibrating string model is closer to our everyday's experience.

Therefore, my vision can be summarized as follows: My vision is to extend Dr. George Shpenkov's method (he uses the classical wave equation) to become fractal vibrating string. I hypothesize that many phenomena from microscale up to macroscale can be described using *fractal vibrating string*. And it should be noted here that the proposed fractal vibrating string here is different from fractal string theory of Dr. Michel Lapidus, and it is also different from the "standard" string theory (although philosophically speaking, they may have some similarities). One of the basic differences is that in string theory, one should work with 26 dimensions, which is not necessary for studying fractal vibrating string.

To the best of our knowledge, such a proposal that the Universe was created by the Word of God (or Logos in Greek) is not in conflict with a recent review on the Johannine cosmology:

"The Word is the creator of all things; the apriority; the source of sources; the origin of origins. The creation of the world is itself revelatory; the creation itself bears the stamp of the Word (1.3)."<sup>25</sup>

And it is also consistent with Holman Christian Standard Bible's translation of Revelation 3:14 :

"The Amen, the faithful, true Witness, the **Originator** of God's creation..."<sup>26</sup>

But unfortunately there are only a few studies in such a Johannine cosmology in the existing body of literature, and even more fewer is mathematical model based on such a Johannine cosmology.

Therefore my proposal may be considered as one early attempt to develop such a mathematical

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<sup>25</sup> Klink III, Edward W. "Light of the World: Cosmology and the Johannine Literature," Chapter 5 in Jonathan T. Pennington & Sean M. McDonough (eds.) *Cosmology and the New Testament Theology*. London: T&T Clark, 2008. p. 74-89

<sup>26</sup> Holman Christian Standard Bible, Free edition obtained at OliveTree BibleStudy App.

model based on interpretation of Johannine Prolegomena. By doing so, I wish to contribute in better dialogue between theology and scientific world.

### **Future works**

For the time being, there are some remaining works to be done:

- a. To find exact solution of Helmholtz equation in spherical case and then compare it with observed data of Early Universe's oscillation.
- b. To explain CMBR/WMAP spectrum and anisotropy
- c. To explain redshift data
- d. To explain the origin of clustering formation of galaxies
- e. Etc.

### **Implications of the proposed research**

Implications of the proposed research include:

- a. It is possible to reconcile scientific findings with biblical teaching in the context of cosmology modeling.
- b. It is possible to explain CMBR spectrum from the viewpoint of classical wave equation.
- c. It is possible to construct a fractal vibrating string model to study both many large scale as well as micro scale phenomena.

- d. Potential implication is to apply unified wave field model governing electromagnetic and gravitational phenomena.<sup>27</sup>

In short, if the proposed research is approved, then it can open a plethora of new approaches to study cosmology in a whole new perspective.

### **Concluding remarks**

I have outlined here a new choice for cosmology model, namely that the Universe was created by Logos (Christ in His pre-existence). This is in accordance with the Prolegomena of the Gospel of John, which says that the Logos was there in the beginning (John 1:1).

My proposal is to extend Dr. George Shpenkov's method (he uses the classical wave equation) to become fractal vibrating string. I hypothesize that many phenomena from microscale up to macroscale can be described using *fractal vibrating string*. And it should be noted here that the proposed fractal vibrating string here is different from fractal string theory of Dr. Michel Lapidus, and it is also different from the "standard" string theory (although philosophically speaking, they may have some similarities).

But unfortunately there are only a few studies in such a Johannine cosmology in the existing body of literature, and even more fewer is mathematical model based on such a Johannine cosmology. Therefore my proposal may be considered as an early attempt to develop such a mathematical model based on interpretation of Johannine Prolegomena. By doing so, I wish to contribute in a better dialogue between theology and scientific world.

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<sup>27</sup> Christianto, V. A derivation of GravitoElectroMagnetic (GEM) Proca-type equations in Fractional Space. *Prespacetime Journal* Vol. 5 No. 5 May 2014, [www.prespacetime.com](http://www.prespacetime.com) or [http://www.vixra.org/author/Victor\\_Christianto](http://www.vixra.org/author/Victor_Christianto)

If the proposed research is accepted, then it can open a plethora of new approaches to study cosmology in a whole new perspective.

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# A Comparative Study of Cosmology revealed from Christology and Trinitarian approaches

Victor Christianto<sup>28</sup>

## Abstract

This short article is intended as a continuation of my previous article with title: An Outline of New Cosmology Model Inspired by Cosmic Christology of the Johannine Prologue (Scientific God Journal, Vol. 7, No. 4, 2016). In the present article I will compare cosmology models revealed from Christology and Trinitarian approaches.

## Introduction

This short article is intended as a continuation of my previous article with title: An Outline of New Cosmology Model Inspired by Cosmic Christology of the Johannine Prologue (Scientific God Journal, Vol. 7, No. 4, 2016). In the present article I will compare cosmology models revealed from Christology and Trinitarian approaches.

Given the fact that this is a very broad topic, so I made some assumptions to restrict our discussion, including:

- a. I assume that the participants have an adequate background understanding of what is meant by Christology and the Trinity, so I will not repeat the basic definitions.
- b. although in general what is meant among physicists with cosmology is a branch of science that studies the formation and development of the universe, in the context of this discussion I will discuss cosmology as a conceptual framework of the universe, not necessarily these concepts should be confirmed empirically. (6)

This paper was made with the realization that in the last 7-8 decades has raised a variety of

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cosmological theories that do not mention at all about God, where the role of man be lost in the cosmic drama of space and time, and this has been a particular challenge for many Christians both lay and theologians who are still leaning in God as the Creator of the universe (3, p. 184). Indeed, some Christian thinkers assumed that modern cosmological theories such as the Big Bang are quite close to the biblical doctrine of creation, but not a few who think that the big bang actually replaces the role of God in creation with a random chance process triggered by fluctuations in vacuum. Others argue that the singular point where the universe began to expand need not be equated with the point of creation. Presumably these issues are more in depth than just maintaining the idea of six-day creation, like what most Creationists told us.

The situation with somewhat similar dilemma also arises in the question of the origin of life on Earth, where the classical view, as was proven by Louis Pasteur through experimentation, stating that the origin of life is life (biogenesis), while the latest scientific developments tend to support

the idea that life occurs spontaneously from simple chemical reactions, even cutting-edge theory explains the existence of a common ancestor called the Last Universal Common ancestor (LUCA).

Then how should our attitude as Christians in addressing the various dilemmas? This article is an expression of perceived concerns with respect to the direction of the authors of modern cosmology and dilemmas faced by Christians who want to uphold their faith, therefore the writer will try to look at cosmology from the perspective of the Trinity and Christology.

Basically the author agrees with Norris, Jr., that it is necessary to develop a new cosmological paradigm which can provide a response to the modern cosmology (3, p. 185).

Dialogue between cosmology and the Bible (Scripture) is possible and necessary, particularly if we cite the thinking of 6th century Christologists such as St. Maximus the Confessor. According to Paul M. Blowers, Maximus's theology enables us to do:

*"scripturalizing" of the cosmos and "cosmologizing" of the Scripture.* (3, p. 199)

## **Trinitarian approach to Cosmology**



First of all, it must be recognized that there is no well-established concept of Trinitarian cosmology, let alone that has reached the stage of empirical confirmation. Neville also wrote that the idea of the Trinity is always rooted in revelation and speculation at the same time (1). The starting point of the concept of the Trinity is Christology, and a Christology thesis is rooted in the belief that Jesus is the Son of God because He is the Word made flesh (1, p.9). From this it can be drawn a basic idea that the doctrine of the Trinity was originally stems from Christology, particularly the New Testament Christology.

Thus if we read the Old Testament from the New Testament lens, we see that since in Gen. 1: 1- 2 already called about the role of God (the Father), the Spirit of God was hovering and also the word of God with power (dabar YHWH). If only we can ignore that Genesis was written by a monotheistic Jews, then the mention of these three actors is sufficient for us to say that the forerunner of the Trinitarian cosmology has existed since Genesis. 1. According to the St. Basil, God the Father is the "primordial cause of everything that has been made," the Son is "the operative cause," and the Holy Spirit is "the perfecting cause." see (2) p. 250. Indeed, since the fathers of the church, including Irenaeus and Aquinas, Christians generally assumed that the creation of the Bible is the creation of nothing (creation ex nihilo). Irenaeus for example, writes that there is one God the Father is one God, who created everything from nothing through his Word. He repeatedly wrote about the Father who has created with His two hands (29). Of course what is meant by the two hands are the Word and the Holy Spirit.

Although Irenaeus explains these concepts to read Gen. 1: 1-4,26,27 but of course the views were rooted in the apostolic teachings of the risen Christ. In other words, the trinitarian view of Irenaeus actually stems from Christology. One more thing that should be noted, that the term Trinity itself is not yet known in the second century AD (Irenaeus period), because the term was emerging around the third and fourth centuries. So presumably not appropriate for reading Irenaeus from the standpoint of the development of thinking one or two centuries later (34).

In a later development, few people distinguish between social and latin Trinitarianism, which essentially are as follows: (35):

- a. Social Trinitarianism: "three distinct and discrete persons." But this may be more suitable called tritheism, although there are some theologians who see this concept remains as

monotheism. For example: Plantinga, (?)

b. Latin Trinitarianism: "three persons in one substance." This model is further developed into a model of psychology by Augustine of Hippo in his *De Trinitate* (37).

Just for a side note, in a modern version of this psychology model can be linked with the theory of "plural self" (38). Plural self-concept has been studied seriously in modern psychology (39). That is, the human being as God's image also has a complex identity (plural), and that fact is an indirect hint that monotheism complex (Trinity) is more relevant than the simple monotheism. However, Karl Rahner has addressed some of the problems that exist with the psychological model of the Trinity, and he prefers to use the term "hypothesis." See (38a). Furthermore, for a discussion of modern thinking about the Trinity in relation to postmodernism, see for example (18).

Back to the biblical narrative of creation, the actual theory of creation out of nothing is not the only possibility, because there are several possible alternative interpretations of the Genesis 1 narrative. See for example (13):

- creation from 'primordial chaos': if "tohu wa bohu" can be interpreted as chaotic and formless.
- creation from a kind of primordial fluid
- continuous creation (*creatio continuans*): Robert Millikan
- cyclic universe: Roger Penrose
- continuously expanding universe since infinite time: Fred Hoyle
- and one more possibility: creation without singularity.

## Some Problems with the Big Bang model

If one can develop a theory in accordance with cosmological observation data but without involving the singularity hypothesis, then it means the big bang (big bang) become irrelevant. From a theological perspective, Aquinas argued that the existence of God does not implicitly suggest that the age of the universe is limited, and this position is supported for example by Arthur Peacocke and Ian Barbour, see (6). In other words, the big bang theory is not a necessary condition for evidence of the presence of God.

The author himself found the idea of the Big Bang bit corny, even if Georges Lemaitre connected it to the "creation ex nihilo." Although there are many writers who have been denied the big bang theory, such as Fred Hoyle, Geoffrey Burbidge and Halton Arp, here the author would only give 3 refutations by elementary logic, namely:

- a. First: There is no sane person would build a house by blowing up a pile of bricks with a grenade. In essence, very, very small chance that all the order and structure that we observe in the universe is the result of purely random process. In other words, the big bang models have serious logical flaw.
- b. second: Careful calculations show that if the big bang happened because of fluctuations in the vacuum (Vacuum Fluctuation), then the implication is the cosmological constant would have a value of more than  $10^{10}$  times greater than the observed value now. So it is clear that the assumption of many scientists that the big bang was triggered by fluctuations in vacuum would be simply an unfounded assumption. (Indeed, lately the hypothesis that the big bang came from vacuum fluctuations much to gain followers, especially those who argue that the universe started from nothing; but the essence of their argument is that the Universe did not require a Creator or God, see ref. (40)).
- c. Big Bang Theory has a primary assumption is that the universe began from a very small primordial egg. This hypothesis of cosmic egg was first proposed by Georges Lemaitre, based on the findings of Edwin Hubble, an American astronomer. If the law of Hubble is extrapolated backwards it will be found the starting point of the universe. The starting point is what is called a singularity or big bang (15). The question is: what if it can be shown that the singularity is not necessary to explain astronomical data?

Unfortunately, the big bang theory is already widely accepted as an indisputable fact, or in terms of Lakatos: research program (research program). As a result, almost all the paper that criticized the theory will necessarily be rejected in any scientific journal, because it does not comply with accepted research program as a consensus. It shows the repression of the authority of science worldwide; see ref. (15). Even Fred Hoyle once called the big bang as "religious fundamentalism"(6). For further discussion, for example the readers can see a website by Eric Lerner: [www.bigbangneverhappened.org](http://www.bigbangneverhappened.org)

However, thankfully lately there are also some cosmologists who propose cosmological

models without singularities. Of their courage to break down a well-worn theory should be appreciated. See example ref. (16).

In the context of Gen. 1, the universe could be considered to be eternal, but the earth and the solar system were created from a kind of primordial oceans. Theologically, God always be dynamically Trinity in eternity, and this topic has been appointed as the dissertation by Adrian Langdon (19).

Another approach taken rampant among experimental physicists is trying to look at what happened before the big bang, though of course the levels of speculation this approach is quite large (17).

## **Christology approach to Cosmology**

One of the most striking things in the Hymn of Jesus is the Logos who became flesh. Although there are similarities between these notions to the concept of Logos as a rule or immutable laws that govern the various changes in the universe (such as Heraclitus, the Stoics, and Philo), there are many significant differences between them (3, p. 186-287).

In the Hymn of Jesus, the Logos is personal, consubstantial with the Father, begotten by the Father, and incarnated into human and descended into the world and entered into human history. So instead of a human becomes divine, but instead of a divine being human.

Regarding the question of whether the worship of Jesus as the Son of God, Kurios, and the Logos was emerging at a later stage, or indeed a unique original belief of the early Church, can be seen in the work of James Dunn (43).

Although the view of the cosmos in the light of Christology is most clearly evident in John 1: 1-14, but there's also Paul's writings that discuss the cosmic Christology, for example Col. 1: 15-

17. Because it is alleged that the cosmic Christology of John's version has a closeness in conceptual with cosmic version of Paul's Christology. In fact, according to John Gibbs, Cosmic Christology is at the core of Paul's conception of the divinity of Jesus, which is no less important than the theology of the cross. It should be noted that Paul's concept of the divinity of Jesus is not from Hellenism, but rooted in the tradition of the early church itself.

The combined evidence from various sources indicates that the work of the cosmic Christ is not less essential to the Christology of Paul than the redemptive work of Christ, see (4, p. 479).

The question then is: is it possible to develop Christological Cosmology from a theological- scientific discourse into an emancipatory science?

In my opinion, there are some things that can be drawn from the Hymn of Jesus (Jn. 1:14), of which:

- a. The Word and God the Father has an eternal existence and unity. The implication is the Word and the Father's identities are relational.
- b. The Word is the source of life for humans.
- c. The Word is the light of the world, and the darkness can not beat it.
- d. The Word was already willing to go down into the world and into the meat (sarx), which is Jesus Christ.
- e. The Word of God is very involved in the process of creation of the universe (cosmos). And without Him nothing is finished in all of creation.

Of those phrases, then obviously there is a clash between the Word that is bright with a dark world. So the assumption of dialectical history is not true that says that advances in human civilization happened as a result of multiple-collisions between thesis and antithesis (Hegel). The truth is always conflict because the eternal dark world tends to reject the Light. Thus, the progress of civilization occurs because the Light itself which gives light unto the darkness of the world, so the world is gradually transformed into increasingly bright. This may conceivably be similar to the process of *diffusion* or *osmosis*.

The clear implication here is that those who were chosen to be the children of God are also called to take part in the world, with a variety of functions, among others:

- creation functions: creating order back,
- enlighten the darkness of the world who do not know God,
- restore order amid the chaos of the world (returning order),
- a witness for Christ, the Word
- sew dark world and full of suffering (rather close to the principle of "tikkun olam" which held the Jewish community).

# Concluding remarks and implications

1. Although there are differences, both Trinitarian and Christological approach can be a starting point for developing a biblical approach to cosmology. Cosmological models which are built from Trinitarian or Christology have practical-ethical implications, while contrasting big bang cosmology or its derivatives which tend to put a man in a position of helplessness in the midst of the cosmic stage.
2. Both approach (Trinitarian and Christological) are very potential to be developed further into the starting point of the dialogue in the context of religious pluralism.
3. In this paper there is nothing new about the Trinity and Christology.
4. Although the author is not advocating Social Gospel (Social Gospel), but at least the church can begin to actively build intense communication with the public, for example by means of open dialogue on theological issues in the public sphere. A dialogic interaction can emerge opportunity to exchange an understanding of the Trinity, Christology and others with other religious communities. Such a dialogue should be taken though certainly not make everyone converted in one go. In Jn. 7:14-8:59 narrated that Jesus also often communicated openly with the Jews even if the results are disappointing.
5. Now, a variety of online media means providing ample scope in that direction.

In this paper, the author only had time to explain some basic ideas, in the hope of triggering ideas deeper by the readers. What is your opinion?

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# Thinking Out Loud on Early Creation through the Lens of Hermeneutics of Sherlock Holmes

(Towards a Model of Universe based on Turbulence-Generated Sound Theory)

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## Abstract

In recent years, apparently the Big Bang as described by the Lambda CDM-Standard Model Cosmology has become widely accepted by majority of physics and cosmology communities. Even some people have concluded that it has no serious alternative in horizon. Is that true? First, as we argued elsewhere, Big Bang story relies on singularity. In other words, when we are able to describe the observed data without invoking singularity, then Big Bang model is no longer required. Therefore, here we explore a few alternative stories other than Big Bang story, which most cosmologists believe it is the nearest to Biblical account of creation. We would argue that re-reading of Genesis 1:2 will lead us to another viable story, albeit the alternative has not been developed rigorously as LCDM theories. We also briefly discuss a fluid Maxwell equations of Prof. Tsutomu Kambe based on vortex sound theory.

**Key Words:** Maxwell electromagnetic theory, singularity-free cosmology model, vortex sound theory, early Universe, early creation, Genesis chapter 1, Spirit in Creation.

## 1. Introduction

One of the biggest mysteries in cosmogony and cosmology studies is perhaps: how to interpret properly Genesis chapter 1:2. Traditionally, philosophers proposed that God created the Universe out of nothingness (from reading “empty and formless” and “*bara*” words; this contention is called “*creation ex nihilo*.”). Understandably, such a model can lead to various interpretations, including the notorious “cosmic egg” model as suggested by Georges Lemaitre, which then led to Big Bang model. Subsequently, many cosmologists accept it without asking, that Big Bang stands as the most faithful and nearest theory to Biblical account of creation. But we can ask: Is that cosmic egg model the true and faithful reading of Genesis 1:2?

In the subsequent chapter we will discuss how to answer this question by the lens of hermeneutics of Sherlock Holmes. This is a tool of mind which we think to be a better way compared to critical hermeneutics.

Now a word on the meaning of thinking out loud phrase. What we mean with this phrase is, according to a definition:

**Thinking out loud** is the act of expressing in recoverable and external form new thoughts which you encourage your mind into exploring. Often these lead to new avenues of thought. When you **think out loud** you detect and explore ideas and concepts which are either unknown, or as yet unexplored.<sup>29</sup>

## 2. Several different interpretations of Genesis 1:2 and implications

Our discussion starts from the fundamental question that one of us (VC) has heard around three years ago. At the time, he (VC) has had a good time of conversation at Starbuck with a senior pastor who happens to be one of the most leading scholar from Jakarta Theology and Philosophy Seminary, i.e. Dr. Joas Adiprasetya (JA). VC tried to explain to him his idea on interpreting of Prolegomena of John Gospel as one of reliable biblical account of creation. In essence, one of us (VC) told JA that it appears possible to interpret the Logos as the Sacred Voice of God, then from voice we can infer sound wave, then from sound wave we can infer frequency. Therefore, we can infer that there should be primordial/relic sound wave which emerged at the earliest time of creation. [10-13] And Prof. Wayne Hu has written a paper about observation of such relic sound wave.

But JA asked him (VC): okay, then where was the role of Holy Spirit in that creation story based on John 1:1? I should admit that at the time I cannot come up with a convincing answer. I only said: “I do not think of that yet.”

And it took around three years before now we have been thinking this problem out loud, and here our answer can be summarized as follows: “The relic sound wave in early creation is a faithful interpretation of John 1:1, but we can come up with a more complete picture if we combine it with Gen. 1:2, that is the Holy Spirit came to hovering over the primordial fluid, then a kind of hurricane/storm started which created perfect medium where God spoke (Logos).”

Let us consider some biblical passages:

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<sup>29</sup> [wiki.c2.com/?ThinkingOutLoud](http://wiki.c2.com/?ThinkingOutLoud)

- What is *Hermeneutics of Sherlock Holmes*?

One article suggests:<sup>30</sup>

*Holmes: "I have no data yet. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts."*

Far too often students of the Bible (and cosmology folks as well) twist verses to suit interpretations instead of formulating interpretations to suit what the verses say.

Guide: Don't approach your passage assuming you know what it means. Rather, use the data in the passage – the words that are used and how they fit together – to point you toward the correct interpretation.

- A re-reading of Gen. 2:7 with Hermeneutics of Sherlock Holmes<sup>31</sup>

If we glance at Gen. 2: 7, we see at a glance that man is made up of the dust of the ground (*adamah*) which is breathed by the breath of life by God (*nephesh*). Here we can ask, does this text really support the Cartesian dualism view?

We do not think so, because the Hebrew concept of man and life is integral. The bottom line: it is not the spirit trapped in the body (Platonic), but the body is flowing in the ocean of spirit. [7]

Let's look at three more texts:

a. Gen. 1: 2, "*The earth is without form and void, darkness over the deep, and the Spirit of God hovering over the waters.*" Patterns such as Adam's creation can also be encountered in the creation story of the universe. Earth and the oceans already exist (similar to *adamah*), but still empty and formless. Then the Spirit of God hovered over it, in the original text "*ruach*" can be interpreted as a strong wind (storm). So we can imagine there is wind/hurricane, then in the storm that God said, and there was the creation of the universe. See also Amos Yong [6], also Hildebrandt [15]. From a scientific point of view, it is well known in aerodynamics that

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<sup>30</sup> <https://www.str.org/blog/learning-hermeneutics-from-holmes>

<sup>31</sup> Check Eric McKiddie's article: <https://www.thegospelcoalition.org/blogs/trevin-wax/10-tips-on-solving-mysterious-bible-passages-from-sherlock-holmes/>

turbulence can cause sound (*turbulence-generated sound*). And primordial sound waves are indeed observed by astronomers.

b. Ps. 107: 25, "*He said, he raised up a storm that lifted up his waves.*" The relation between the word (sound) and the storm (turbulence) is interactive. Which one can cause other. That is, God can speak and then storms, or the Spirit of God causes a storm. Then came the voice.

c. Ezekiel. 37: 7, "*Then I prophesy as I am commanded, and as soon as I prophesy, it sounds, indeed, a crackling sound, and the bones meet with one another.*" In Ezekiel it appears that the story of the creation of Adam is repeated, that the Spirit of God is blowing (storm), then the sound of the dead bones arises.

The conclusion of the three verses above seems to be that man is made up of *adamah* which is animated by the breath or Spirit of God. He is not matter, more accurately referred to as spirit in matter. Like a popular song around 80s goes: "*We are spirits in the material world.*"

### **3. A physical model of turbulence-generated sound for early Universe**

Our discussion starts from the fundamental question: how can we include the rotation in early Universe model? After answering that question, we will discuss how “turbulence-generated sound” can be put into a mathematical model for the early Universe. We are aware that the notion of turbulence-generated sound is not new term at all especially in aerodynamics, but the term is rarely used in cosmology until now. We shall show that 3D Navier-Stokes will lead to non-linear acoustics models, which means that a turbulence/storm can generate sound wave.

#### *a. How can we include rotation in early Universe model?*

It has been known for long time that most of the existing cosmology models have singularity problem. Cosmological singularity has been a consequence of excessive symmetry of flow, such as “Hubble’s law”. More realistic one is suggested, based on Newtonian cosmology model but here we include the vortical-rotational effect of the whole Universe.

In this section, we will derive an Ermakov-type equation following Nurgaliev [8]. Then we will solve it numerically using Mathematica 11.

After he proceeds with some initial assumptions, Nurgaliev obtained a new simple local cosmological equation:[8][9]

$$\dot{H} + H^2 = \omega^2 + \frac{4\pi G}{3} \rho, \quad (1)$$

Where  $\dot{H} = dH / dt$ .

The angular momentum conservation law  $\omega R^2 = \text{const} = K$  and the mass conservation law  $(4\pi/3)\rho R^3 = \text{const} = M$  makes equation (5) solvable:[9]

$$\dot{H} + H^2 = \frac{K^2}{R^4} - \frac{GM}{R^3}, \quad (2)$$

Or

$$\ddot{R} = \frac{K^2}{R^3} - \frac{GM}{R^2}. \quad (3)$$

Equation (3) may be written as Ermakov-type nonlinear equation as follows;

$$\ddot{R} + \frac{GM}{R^2} = \frac{K^2}{R^3}. \quad (4)$$

Nurgaliev tried to integrate equation (3), but now we will solve the above equation with Mathematica 11. First, we will rewrite this equation by replacing  $GM=A$ ,  $K^2=B$ , so we get:

$$\ddot{R} + \frac{A}{R^2} = \frac{B}{R^3}. \quad (5)$$

As with what Nurgaliev did in [8][9], we also tried different sets of A and B values, as follows:

a. A and B < 0

```

A=-10;
B=-10;
ODE=x''[t]+A/x[t]^2-B/x[t]^3==0;
sol=NDSolve[{ODE,x[0]==1,x'[0]==1},x[t],{t,-10,10}]
Plot[x[t]/.sol,{t,-10,10}]

```

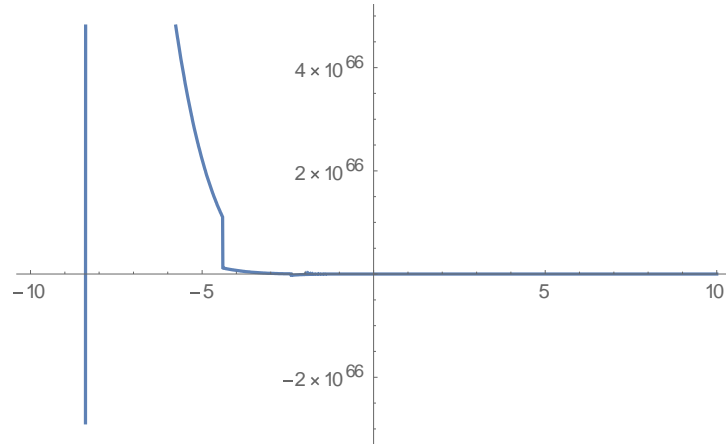


Figure 1. Plot of Ermakov-type solution for A=-10, B=-10

b.  $A > 0, B < 0$

```

A=1;
B=-10;
ODE=x''[t]+A/x[t]^2-B/x[t]^3==0;
sol=NDSolve[{ODE,x[0]==1,x'[0]==1},x[t],{t,-10,10}]
Plot[x[t]/.sol,{t,-10,10}]

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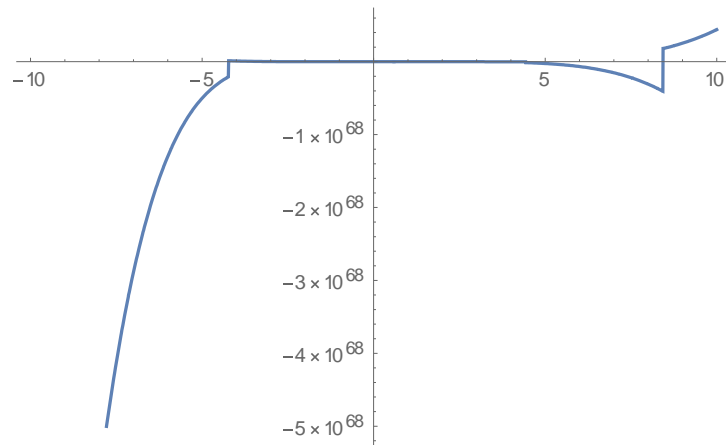


Figure 2. Plot of Ermakov-type solution for A=1, B=-10

From the above numerical experiments, we conclude that the evolution of the Universe depends on the constants involved, especially on the rotational-vortex structure of the Universe. This needs to be investigated in more detailed for sure.

One conclusion that we may derive especially from Figure 2, is that our computational simulation suggests that it is possible to consider that the Universe has existed for long time in prolonged stagnation period, then suddenly it burst out from *empty and formless* (Gen. 1:2), to take its current shape with accelerated expansion.

As an implication, we may arrive at a precise model of flattening velocity of galaxies without having to invoke *ad-hoc* assumptions such as dark matter.

Therefore, it is perhaps noteworthy to discuss briefly a simple model of galaxies based on a postulate of turbulence vortices which govern the galaxy dynamics. The result of Vatisas' model equation can yield prediction which is close to observation, as shown in the following diagram:[14]



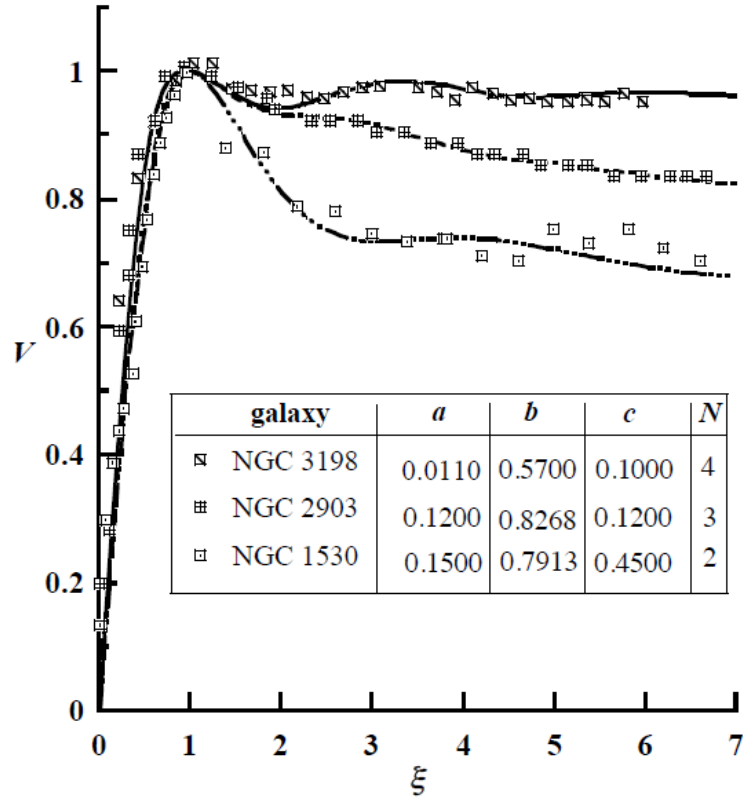


Figure 3. From Vatisas [14]

Therefore it appears possible to model galaxies without invoking numerous *ad hoc* assumptions such as *dark matter*, once we accept the existence of turbulent interstellar medium. The Vatisas model is also governed by Navier-Stokes equations, see for instance [14].

*b. How “turbulence-generated sound” can be put into a mathematical model for the early Universe*

We are aware that the notion of turbulence-generated sound is not new term at all especially in aerodynamics, but the term is rarely used in cosmology until now. We will consider some papers where it can be shown that 3D Navier-Stokes will lead to non-linear acoustics models, which means that a turbulence/storm can generate sound wave.

In this section we consider only two approaches:

- Shugaev-Cherkasov-Solenaya’s model: They investigate acoustic radiation emitted by three-dimensional (3D) vortex rings in air on the basis of the unsteady Navier–Stokes equations. Power series expansions of the unknown functions with respect to the initial vorticity which is supposed to be small are used. In such a manner the system of the Navier–Stokes equations is reduced to a parabolic system with constant coefficients at high derivatives. [16]
- Rozanova-Pierrat’s Kuznetsov equation: she analysed the existing derivation of the models of non-linear acoustics such as the Kuznetsov equation, the NPE equation and the KZK equation. The technique of introducing a corrector in the derivation ansatz allows to consider the solutions of these equations as approximations of the solution of the initial system (a compressible Navier-Stokes/Euler system). The direct derivation shows that the Kuznetsov equation is the first order approximation of the Navier-Stokes system, the KZK and NPE equations are the first order approximations of the Kuznetsov equation and the second order approximations of the Navier-Stokes system. [17]

#### 4. Vortex-sound theory and fluidic Maxwell equations

There are a number of proposals to revise Maxwell equations. But few has considered a fresh starting point with regards to the (sub) structure of aether. It is very interesting to note that Prof. T. Kambe from University of Tokyo has made a connection between the equation of vortex-sound theory and its analogue fluid Maxwell equations. He wrote that it would be no exaggeration to say that any vortex motion excites *acoustic* waves. [2]

He considers the equation of vortex sound of the form: [2]

$$\frac{1}{c^2} \partial_i^2 p - \nabla^2 p = \rho_0 \nabla \cdot L = \rho_0 \text{div}(\omega \times v) \quad (6)$$

He also wrote that dipolar emission by the vortex-body interaction is:[2]

$$p_F(x, t) = -\frac{P_0}{4\pi c} \ddot{\Pi}_i \left( t - \frac{x}{c} \right) \frac{x_c}{x^2} \quad (7)$$

Then he obtained an expression of fluid Maxwell equations as follows [2]:

$$\begin{aligned}
\nabla \cdot H &= 0 \\
\nabla \cdot E &= q \\
\nabla \times E + \partial_t H &= 0 \\
a_0^2 \nabla \times H - \partial_t E &= J
\end{aligned} \tag{8}$$

Where [2]:

$a_0$  denotes the sound speed, and

$$\begin{aligned}
q &= -\partial_t (\nabla \cdot \nu) - \nabla \cdot \dot{h}, \\
J &= \partial_t^2 \nu + \nabla \partial_t h + a_0^2 \nabla \times (\nabla \times \nu)
\end{aligned} \tag{9}$$

In our opinion, this new expression of fluid Maxwell equations suggests that there is a deep connection between vortex sound and electromagnetic fields.

However, it should be noted that the above expressions based on fluid dynamics need to be verified with experiments. We should note also that in (8) and (9), the speed of sound  $a_0$  is analogous of the speed of light in Maxwell equations, whereas in equation (6), the speed of sound is designated "c" (as analogous to the light speed in EM wave equation).

As an added note, we can mention here that elsewhere Wang [5] was able to derive Coulomb law from the source-sink approach. We are wondering if it is also possible to re-derive Maxwell equations including displacement current from the same approach. If yes, then it may offer another fresh starting point to understand the physical meaning of displacement current.

## 5. Concluding remarks

In recent years, there is growing number of proposals to use a novel concept of singularity-free Cosmology models. It should be clear that if we are able to come up with such singularity-free models which agree well with observation data, then the Big Bang model is no longer required. Therefore, here we explore a few alternative stories other than Big Bang story, which most cosmologists believe it is the nearest to Biblical account of creation (as Fred Hoyle once remarked: the Big Bang is a fanatical religion).

We argue that a re-reading of Genesis 1:2 will lead us to another viable story, albeit the alternative has not been developed rigorously as LCDM theories.

It took around three years before now we have been thinking this problem out loud, and here our answer can be summarized as follows: “*The relic sound wave in early creation is a faithful interpretation of John 1:1, but we can come up with a more complete picture if we combine it with Gen. 1:2, that is the Holy Spirit came to hovering over the primordial fluid, then a kind of hurricane/storm started which created perfect medium where God spoke (Logos).*”

And one conclusion that we may derive especially from Figure 2, is that our computational simulation suggests that it is possible to consider that the Universe has existed for long time in prolonged stagnation period, then suddenly it burst out from *empty and formless (Gen. 1:2)*, to take its current shape which is accelerating. Such a possibility has never been considered before in cosmology literatures.

We also briefly discuss a plausible extension of Maxwell equations based on vortex sound theory of Prof. Tsutomu Kambe. It is our hope that our exploration will lead to nonlinear cosmology theories which are better in terms of observations, and also more faithful to Biblical account of creation.

**Acknowledgment:** The first author (VC) also would like to express his gratitude to Jesus Christ who always encouraged and empowered him in many occasions. He is the Good Shepherd. And special thanks to Dr. Joas Adiprasetya, Dr. Yonky Karman, and Dr. Wonsuk Ma for discussions on early creation of the Universe. We also thank to a number of professors in physics, including Prof. Liek Wilardjo and Prof. Thee Houw Liong. *Soli Deo Gloria!*

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VC & FS

# On Some Metaphysical problems of Many Worlds Interpretation of Quantum Mechanics

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## Abstract

Despite its enormous practical success, many physicists and philosophers alike agree that the quantum theory is full of contradictions and paradoxes which are difficult to solve consistently. Even after 90 years, the experts themselves still do not all agree what to make of it. The area of disagreement centers primarily around the problem of describing observations. Formally, the so-called quantum *measurement problem* can be defined as follows: the result of a measurement is a superposition of vectors, each representing the quantity being observed as having one of its possible values. The question that has to be answered is : how this superposition can be reconciled with the fact that in practice we only observe one value. *How is the measuring instrument prodded into making up its mind which value it has observed?* Among some alternatives to resolve the above QM measurement problem, a very counterintuitive one was suggested by Hugh Everett in his 1955 Princeton dissertation, which was subsequently called the Many-Worlds Interpretation of QM (MWI). In this paper we will not discuss all possible scenarios to solve the measurement problem, but we will only shortly discuss Everett's MWI, because it has led to heated debates on possibility of multiverses, beyond the Universe we live in. We also discuss two alternatives against MWI proposal: (a) the so-called *scale symmetry theory*, (b) the Maxwell-Dirac isomorphism. In last section, we also discuss shortly MWI hypothesis from philosophical perspective.

Keywords: quantum measurement problem, many-worlds interpretation, quantum metaphysics, multiverse, realism interpretation, scale symmetry, Maxwell-Dirac isomorphism.

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## Introduction

In its simplest form the quantum theory of measurement considers a world composed of just two dynamical entities, a system and an apparatus. According to the Copenhagen interpretation of QM, at the point of time when an observer operates the apparatus to observe the system, the system's wave function collapse. But the exact mechanism of wave function collapse is unknown. Furthermore, it is difficult to model the correlation between a *macroscopic* observer and apparatus (governed by classical physics) with the *microscopic* system in question, which is supposed to be governed the Schrödinger's wave function. This is known as quantum measurement problem, which baffled many physicists since the early years of QM development.

To quote De Witt's paper in *Physics Today* [7]:

“At this point Bohr entered the picture and deflected Heisenberg somewhat from his original program. Bohr convinced Heisenberg and most other physicists that quantum mechanics has no meaning in the absence of a classical realm capable of unambiguously recording the results of observations. The *mixture of metaphysics with physics*, which this notion entailed, led to the almost universal belief that the chief issues of interpretation are epistemological rather than ontological: The quantum realm must be viewed as a kind of ghostly world whose symbols, such as the wave function, represent potentiality rather than reality.”

Apparently, Everett also realized that Copenhagen interpretation is largely incomplete. In his 1955 PhD thesis, Everett essentially proposed a resolution from measurement problem by assuming a multitude of possibilities, which is why his hypothesis is called Many Worlds Interpretation.

In De Witt's words:[7]

“... it forces us to believe in the reality of all the simultaneous worlds represented in the superposition described by equation 5, in each of which the measurement has yielded a different outcome. Nevertheless, this is precisely what EWG would have us believe. According to them the real universe is faithfully represented by a state vector similar to that in equation 5 but of vastly greater complexity. This universe is constantly splitting into a stupendous number of branches, all resulting from the measurement like interactions between its myriads of components. Moreover, every quantum transition taking place on every star, in every galaxy, in every remote comer of the universe is splitting our local world on earth into myriads of copies of itself.”

In other words, Everett's hypothesis called for a different picture of reality, and obviously this requires a careful consideration of the distinction and boundary between physics theories and metaphysics. In the next section we will discuss several objections and critics to MWI.



## Some critics to Everett's Many Worlds Interpretation

Since publication of his dissertation, Everett's MWI has caused debates especially on philosophical problems related to his proposal. Such a proposition leads some physicists to argue that MWI actually moves the measurement problem into wild metaphysical speculation of branching universes. Barrett has reviewed earlier discussions on this topics.[6]

Despite acceptance of MWI by some theoretical physicists, and even Barrau [9] argued in favor of possible experimental vindication of MWI, there are also those who raise serious criticisms on such a wild hypothesis.

One critics came from Adrian Kent from Princeton University, from the same department where Everett obtained his PhD. In essence, Kent's objection on MWI is because:

“The relevance of frequency operators to MWI is examined; it is argued that frequency operator theorems of Hartle and Farhi-Goldstone-Gutmann do not in themselves provide a probability interpretation for quantum mechanics, and thus neither support existing MWI nor would be useful in constructing new MWI.”[5]

Furthermore, he argues:

“Firstly, the very failure of MWI proponents to axiomatize their proposals seems to have left the actual complexity of realistic MWI widely unappreciated. It may thus possibly be tempting for MWI advocates to assume that there is no real problem; that Everett's detractors either have not understood the motivation for, or merely have rather weak aesthetic objections to, his program. (Hence perhaps the otherwise inexplicable claim by one commentator that “Avoiding this [prediction of multiple co-existing consciousnesses for a single observer] is their [Everett's opponents'] motivation for opposing Everett in the first place.”)

Secondly, MWI seem to offer the attractive prospect of using quantum theory to make cosmological predictions. The trouble here is that *if MWI is ultimately incoherent and ill-founded, it is not clear why one should pay attention to any quantum cosmological calculations based on it.*” [5, p. 27]

In answering frequent question of what are the alternatives to MWI hypothesis, Kent outlined a number of ideas, including subquantum physics.

Another critics came from Steven Weinberg. For example, in 2005 interview with Dan Falk, Steven Weinberg still has objection on multiverse hypothesis. Meanwhile, he agrees that

positivism or constructivism may be no longer valid in physics sciences, but he also admits that he still tries to figure out an alternative interpretation of QM:

“SW: And sometimes, as with the example of positivism, the work of professional philosophers actually stands in the way of progress. That’s also the case with the approach known as constructivism — the idea that every society’s scientific theories are a social construct, like its political institutions, and have to be understood as coming out of a particular cultural milieu. I don’t know whether you’d call it a philosophical theory or a historical theory, but at any rate, I think that view is wrong, and I also think it could impede the work of science, because it takes away one of science’s great motivations, which is to discover something that, in an absolute sense, divorced from any cultural milieu, is actually true.

Dan Falk: You’re 81. Many people would be thinking about retirement, but you’re very active. What are you working on now?

SW: There’s something I’ve been working on for more than a year — maybe it’s just an old man’s obsession, but I’m trying to find an approach to quantum mechanics that makes more sense than existing approaches. I’ve just finished editing the second edition of my book, *Lectures on Quantum Mechanics*, in which I think I strengthen the argument that none of the existing interpretations of quantum mechanics are entirely satisfactory.”

Weinberg himself has proposed his own theoretical physical interpretation of QM, albeit his theory is non-ontological in nature. He wrote:[14]

“ $\psi$  is theoretically physical and describes the probabilistic possibilities, as the Copenhagen interpretation implies. It has physical units (see Eq. (3)).  $\psi$  is also, naively, a function of a real spacetime coordinate argument solving a partial differential equation, such as the time-dependent Schrödinger equation, for example, with spacetime partial derivatives. All this argues for theoretically physical formalism (*not ontology*), applicable predictably prior to ‘Copenhagen observation.’”

Therefore, in the same spirit with Weinberg’s reserved position against MWI hypothesis, in the following section we will discuss two simpler alternatives which seem quite worthy for further

considerations: (a) scale symmetry theory, (b) a more realistic interpretation of quantum wave function based on Maxwell-Dirac isomorphism.

### **1. Resolution to the problem based on scale symmetry theory**

In a semi-popular article in *Quanta Magazine*[10], Wolchover describes how some theoretical physicists who feel unhappy with multiverse metaphysical problem, have come up with new theories where mass and length are no longer fundamental entities. In a scale-symmetry theory, advocated earlier by Bardeen around 1995, the origin of mass can be derived without invoking Higgs mechanism.[11]

Proponents of scale symmetry theory argue that this approach has clear prospect to prove that multiverse hypothesis (MWI) is an *excess baggage*. In essence, they believe that the key to the correct answer to the measurement problem is not by pondering metaphysical problems such as the existence of multiple realities and multiple histories, but by examining our assumptions on mass, length, and scales. See also Hashino et al. [12].

### **2. Resolution to the problem based on realistic Maxwell-Dirac isomorphism**

Actually, there is a simpler resolution to the aforementioned QM measurement problem, although it is not quite popular yet, i.e. by admitting that (a) Schrodinger's wave function is unphysical therefore it has no value for realistic physical systems, (b) because of such an unrealistic wave function, the measurement problem is caused by confusion on the physical meaning of quantum wave function, (c) it is required to reconcile physical wave function obtained from QM and from classical electrodynamics theory.

Once we accept these, then we should find out the correct physical meaning of wave function, by formal connection between QM and classical electrodynamics. In other words, contradictions and confusions can be removed once we reconcile quantum picture with classical electrodynamics picture of wave function, instead of crafting unfounded assumption of many-worlds which only creates metaphysical excess baggage.

There are some papers in literature which concerned with the formal connection between classical electrodynamics and wave mechanics, especially there are some existing proofs on Maxwell-Dirac isomorphism. Here the author will review two derivations of Maxwell-Dirac isomorphism i.e. by Hans Sallhofer and Volodimir Simulik. In the last section we will also discuss a third option, i.e. by exploring Maxwell-Dirac isomorphism through quaternionic language.

### a. Sallhofer's method

Summing up from one of Sallhofer's papers[1], he says that under the sufficiently general assumption of periodic time dependence the following connection exists between source-free electrodynamics and wave mechanics:

$$\sigma \cdot \left[ \begin{array}{l} \text{rot}E + \frac{\mu}{c} \frac{\partial}{\partial t} H = 0 \\ \text{rot}H - \frac{\varepsilon}{c} \frac{\partial}{\partial t} H = 0 \\ \text{div}\varepsilon E = 0 \\ \text{div}\mu H = 0 \end{array} \right]_{\text{div}E=0} \equiv [(\gamma \cdot \nabla + \gamma^{(4)} \partial_4) \Psi = 0] \quad (1)$$

In words: Multiplication of source-free electrodynamics by the Pauli-vector yields wave mechanics.[1]

In simple terms, this result can be written as follows:

$$P \cdot M = D, \quad (2)$$

Where:

P = Pauli vector,

M = Maxwell equations,

D = Dirac equations.

We can also say: *Wave mechanics is a solution-transform of electrodynamics.* Here one has to bear in mind that the well-known circulatory structure of the wave functions, manifest in Dirac's hydrogen solution, is not introduced just by the Pauli-vector.[1]

### b. Simulik's method

Simulik described another derivation of Maxwell-Dirac isomorphism. In one of his papers[2], he wrote a theorem suggesting that the Maxwell equations of source-free electrodynamics which can be written as follows:

$$\begin{aligned}
 \text{rot}E + \frac{\mu}{c} \frac{\partial}{\partial t} H &= 0 \\
 \text{rot}H - \frac{\varepsilon}{c} \frac{\partial}{\partial t} E &= 0 \\
 \text{div}E &= 0 \\
 \text{div}H &= 0
 \end{aligned} \tag{3}$$

Are equivalent to the Dirac-like equation [2]:

$$\left[ \gamma \cdot \nabla - \begin{pmatrix} \varepsilon 1 & 0 \\ 0 & \mu 1 \end{pmatrix} \frac{1}{c} \frac{\partial}{\partial t} \right] \Psi^{c1} = 1, \tag{4}$$

Where in the usual representation

$$\gamma = \begin{pmatrix} 0 & \sigma \\ \sigma & 0 \end{pmatrix}, \tag{5}$$

And  $\sigma$  are the well-known Pauli matrices.

### c. Maxwell-Dirac isomorphism through Quaternionic language

Recognizing that the Maxwell's equations were originally formulated in terms of quaternionic language, some authors investigate formal correspondence between Maxwell and Dirac equations. To name a few who worked on this problem: Kravchenko and Arbab. These authors have arrived to a similar conclusion, although with a different procedures based on Gersten decomposition of Dirac equation.[4]

It seems that the above arguments of Maxwell-Dirac isomorphism can be an alternative to the problematic MWI hypothesis. This MD isomorphism can also be extended further to classical description of boson mass which was usually called Higgs boson[3], so it may offer a simpler route to describe the origin of mass compared to scale symmetry theory.

## Philosophical viewpoint

In our opinion, the essence of problem with MWI is captured in De Witt's remark as quoted above: "The *mixture of metaphysics with physics.*" Formally speaking, Everett's many worlds interpretation of QM can be viewed as large scale implication if one accepts Feynman's *sum over history* interpretation of QM. But, it is known that Feynman famously declared that nobody understood completely Quantum Mechanics. Therefore, one should be very careful before generalize his sum over history interpretation of QM toward Universe.

Nonetheless, Everett's Multiverse found numerous followers, especially science fiction fans all over the world. And some people also relates his Multiverse as a realization of one of Borges's story: "*Garden of the forking paths.*"

While we shall admit that such a Multiverse hypothesis is a nice material for science fiction novels or movies, now is the right time to ask: *Is it possible that God created Multiverse?*

Such a philosophical implication of cosmology development has been emphasized by Bernard Carr:

"By emphasizing the scientific legitimacy of anthropic and multiverse reasoning, I do not intend to deny the relevance of these issues to the science– religion debate [32]. The existence of a multiverse would have obvious religious implications [33], so contributions from theologians are important. More generally, cosmology addresses fundamental questions about the origin of matter and mind, which are clearly relevant to religion, so theologians need to be aware of the answers it provides."

Rodney identifies several problems related to multiverse hypothesis:[17]

"Among the problems identified with the hypothesis are

- (1) the existence of infinitely many universes depends critically on parameter choice;
- (2) the probability that any universe in an ensemble is fine-tuned for life is zero;
- (3) the physical realization of any ensemble will exclude an infinity of possibilities;
- (4) the hypothesis is untestable and unscientific; and
- (5) the hypothesis is not consistent with the amount of order found in this universe, nor with the persistence of order.

If these factors are taken into consideration the conclusion of the last chapter will be much stronger, because the prior probability of many universes will be further reduced and because the 'likelihood' entering Bayes's theorem will also be reduced.”

It seems worth noting here to quote George Ellis’s remark in his Emmanuel College lecture:[19]

“The very nature of the scientific enterprise is at stake in the multiverse debate: the multiverse proponents are proposing weakening the nature of scientific proof in order to claim that multiverses provide a scientific explanation. This is a dangerous tactic.

...

The often claimed existence of physically existing infinities (of universes, and of spatial sections in each universe) in the multiverse context (e.g.Vilenkin: *Many Worlds in One: The Search for Other Universes*) is dubious.

...

Here one must distinguish between explanation and prediction. Successful scientific theories make predictions, which can then be tested. The multiverse theory can’t make any predictions because it can explain anything at all.”

Finally, Ellis warned his fellow cosmologists:[18]

“I suggest that cosmologists should be very careful not make methodological proposals that erode the essential nature of science in their enthusiasm to support specific theories as being scientific, for if they do so, there will very likely be unintended consequences in other areas where the boundaries of science are in dispute. It is dangerous to weaken the grounds of scientific proof in order to include multiverses under the mantle of ‘tested science’ for there are many other theories standing in the wings that would also like to claim that mantle.

*It is a retrograde step towards the claim that we can establish the nature of the universe by pure thought, and don’t then have to confirm our theories by observational or experimental tests: it abandons the key principle that has led to the extraordinary success of science.*

In fact we can’t establish definitively either the existence or the nature of expanding universe domains that are out of sight and indeed out of causal contact with us.”

## **Concluding remarks**

Despite its enormous practical success, many physicists and philosophers alike agree that the quantum theory is full of contradictions and paradoxes which are difficult to solve consistently.

Even after 90 years, the experts themselves still do not all agree what to make of it. In this paper, we review QM measurement problem which paved a way to Many-Worlds Interpretation of QM. Nonetheless, it is clear that Everett's hypothesis called for a different picture of reality, and obviously this requires a very careful consideration of the distinction between physics theories and metaphysics.

In the meantime, the problem of the formal connection between electrodynamics and wave mechanics has attracted the attention of a number of authors, especially there are some existing proofs on Maxwell-Dirac isomorphism. Here the authors review three derivations of Maxwell-Dirac isomorphism i.e. by Hans Sallhofer and Volodimir Simulik and also quaternion language.

In our opinion the above arguments of Maxwell-Dirac isomorphism can be a *simpler* alternative compared to the metaphysically problematic MWI hypothesis. (Allow us to recall Ockham's razor: the simpler explanation is more likely to be the correct answer.) This MD isomorphism can also be extended further to classical description of boson mass which was usually called Higgs boson [3], so it may be a simpler option compared to scale symmetry theory.

It is our hope that discussions presented in this paper have made clear that the entire Many Worlds Interpretation of QM is not required, once we begin to ask what is the physical meaning of wave function, instead of accepted blindly the macroscale implication of path integral interpretation of QM.

This paper was inspired by an old question: *Is there a consistent and realistic description of wave function, both classically and quantum mechanically?*

It can be expected that the above discussions will shed some lights on that old problem especially in the context of physical meaning of quantum wave function. This is reserved for further investigations.

To conclude this paper, allow us to repeat Ellis's warning to his over-enthusiastic fellow cosmologists:

*"I suggest that cosmologists should be very careful not make methodological proposals that erode the essential nature of science in their enthusiasm to support specific theories"*



*as being scientific, for if they do so, there will very likely be unintended consequences in other areas where the boundaries of science are in dispute. It is dangerous to weaken the grounds of scientific proof in order to include multiverses under the mantle of ‘tested science’”*

## **Acknowledgement**

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VC & FS

# Remark on Creatio ex Nihilo, Intelligent Design and Emergence Philosophy Approaches to Origin of the Universe

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## Abstract

It is known that the Big Bang theory was based on the concept of creation ex nihilo, after ancient Greek philosophers. In this paper, we will make few remark on the concept of *creatio ex nihilo* (as a commentary to a recent paper by Kalachanis, Athanasios Anastasiou, Ioannis Kostikas, Efstratios Theodossious and Milan S. Dimitrijevi), as well as two other approaches, i.e. Intelligent Design and Emergence Theory by Clayton/Yong. As continuation of our recent paper to appear in forthcoming issue of J. Asia Matematika, we argue that beside the above three approaches, a new concept called *creatio ex-rotatione* offers a resolution to the long standing disputes between beginning and eternity of the Universe. In other words, in this respect we agree with Vaas, i.e. it can be shown: “*how a conceptual and perhaps physical solution of the temporal aspect of Immanuel Kant’s „first antinomy of pure reason“ is possible, i.e. how our universe in some respect could have both a beginning and an eternal existence. Therefore, paradoxically, there might have been a time before time or a beginning of time in time.*” By the help of computational simulation, we also show how a model of early Universe with rotation can fit this new picture.

**Keywords:** Big Bang, Steady state, rotating universe, fluid, singularity-free, cosmology model, early Universe, Genesis, Spirit in Creation, spirit-filled medicine, mind-body-spirit medicine.

## Introduction

Considering the Big Bang Theory, promulgated by the Belgian priest Georges Lemaître in 1927 who said that the universe has begun through an explosion of a primeval atom, which is based on the Christianity believe that the universe was created, the following questions will naturally occur:

a) where did this primeval atom come from?

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b) what was before this big bang?

The term “big bang” was derogatorily coined by Fred Hoyle in a BBC interview and it is supposed that the universe, according to this theory, was created between 10-20 billion years ago.[33]

In this article we will explore three approaches to the origin of the universe, all of them can be related to the notion of Big Bang (spontaneous creation). In the last section, we will discuss a new proposed concept: *creatio ex-rotatione*, based on our investigation in the past few years.

### **Three Approaches on the Origin of the Universe**

First of all, we will shortly review Kalachanis, Athanasios Anastasiou, Ioannis Kostikas, Efstratios Theodosios and Milan S. Dimitrijevi’s paper which will appear in forthcoming issue of European Journal of Science and Theology [31]. Their paper have the following words as abstract: “The Big Bang Theory considers that the Universe, space and time have a beginning. Similar is the position of the Christian writers of the early Christian Church, who support the *ex nihilo* - ἐκ μὴ ὄντος (*ek meontos* = from the „non-being“) creation of the world through the divine „energy“, with the two theories converging to the fact that space and time have a beginning.”

That the Big Bang concept has a beginning, that is true, but what kind of beginning that its originator had in mind is rather different from the concept that Christian writers had in mind, see for instance: Jonathan Pennington & Sean McDonough.[32]

The Big Bang hypothesis was formulated by Lemaitre based on the notion of primeval atom (“cosmic egg”). Although it is true that some Christian writers also mentioned “Creation from nothing”, they were more likely to have different concepts compared to the primeval atom. Moreover, the notion of “creation from nothing” should be accepted as debatable, since it was mentioned in a few verses only in NT, and it can be traced back to the book of Maccabee in Deuterocanonicals. So, in the next sections, we will take a look directly and closely at Hebrew version of the book of Genesis 1.

In summary we argue that: (a) while both the Big Bang originator and Christian writers shared similar concept of *creatio ex nihilo*, they have different views on “primeval atom,” (b) even the idea of primeval atom itself seems in direct contradiction with “*ex nihilo*” term.

Secondly we will discuss Intelligent Design's view on the Origin of the Universe, then we will discuss Emergence Philosophy.

### a. Intelligent Design

With regards to ID hypothesis, some philosophers began with Psalm 19 to argue in favor of *The Intelligent Creator*:

The heavens declare the glory of God;  
And the firmament shows His handiwork.  
<sup>2</sup>Day unto day utters speech,  
And night unto night reveals knowledge.  
<sup>3</sup>*There is* no speech nor language  
*Where* their voice is not heard.  
<sup>4</sup>Their line<sup>al</sup> has gone out through all the earth,  
And their words to the end of the world. (*Psalm 19: 1-4, NKJV*)<sup>32</sup>

We can note some proponents of ID, such as Michael Behe etc. While such attempt to link the old conception of Intelligent Design to Biblical account may sound interesting at first glance, one can note immediately that all ID proponents seem to avoid to point to God of Bible as the Intelligent Creator that they talk about.

Yes, ID theory is a nice hypothesis to talk about, but the end of the day, such a hesitation to speak about the Biblical God reflects their adherence (perhaps) to a number of theoretical possibilities which enable them to theorize around and around without daring to point at the Real Subject behind all Design in the Universe. And clearly, such a hesitation to point to God is not without implications, as Erkki Vesa Kojonen wrote in his dissertation in University of Helsinki [30]:

*“ID’s design arguments are quite minimalistic, not aspiring to prove the existence of God, but merely of an **unidentified** intelligent designer of cosmic and biological teleology.”*

At the price of giving too much “intellectual room,” then we find in recent decades some scientists or pseudo-scientists come up with alternative hypothesis on who or what is behind the Design of the Universe:

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<sup>32</sup> <https://www.biblegateway.com/passage/?search=Psalm+19&version=NKJV>

- In their book “*Grand Design*,” Hawking and Mlodinow argue that in their TOE model based on certain variations of Superstring theories, that such TOE does need the role of God as Creator.<sup>33</sup> In other words, they seem to argue that physical laws exist eternally before the Universe exist, so by such physical laws themselves, there was Big Bang triggered by primordial vacuum fluctuations. But how did it happen...it seems many cosmologists remain silent on this vague hypothesis. This fact alone should alert us that Hawking and Mlodinow ask their readers to believe in a story based on a baseless-theory which does not conform to any experimental backup. See also article by Michael G. Strauss.<sup>34</sup> Moreover, other alerts may come from the fact that: It is worth noting, that calculation shows that Quantum Field theory predicts cosmological constant at astronomical error compared to observed value.<sup>35</sup> Even mathematicians like Peter Woit already wrote a book called “*Not even wrong*” to alert us on the fact that Superstring theories do not predict anything which can be measured.<sup>36</sup> See also his other book: “*String theory: an evaluation*.”<sup>37</sup>
- And much worse than Grand Design, some college students (and may be with support of their professors) have come up with a new god called “*Flying Spaghetti Monster*” (FSM religion). They even managed to push their case that FSM religion should be taught at high schools and colleges in the same way of ID/evolution theory.<sup>38</sup> Such a fancy FSM reminds us to the *golden cow* made by Aaron and the Israelites soon after Moses went to the mount.

## b. Emergence Philosophy

According to Amos Yong, a full professor in Fuller Seminary:

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<sup>33</sup> <https://www.reasonablefaith.org/writings/popular-writings/science-theology/the-grand-design-truth-or-fiction/>

<sup>34</sup> <http://www.michaelgstrauss.com/2017/08/the-grand-design-is-god-unnecessary.html>

<sup>35</sup> Quote from J.R. Roldan: “The quantum field *theory prediction* of the *cosmological constant* is 120 orders of magnitude higher than the observed value. This is known as the *cosmological constant problem*.”  
<https://arxiv.org/abs/1011.5708>

<sup>36</sup> <http://www.math.columbia.edu/~woit/rutgers.pdf>

<sup>37</sup> <https://www.math.columbia.edu/~woit/strings.pdf>

<sup>38</sup> <https://www.telegraph.co.uk/news/worldnews/northamerica/usa/1498162/In-the-beginning-there-was-the-Flying-Spaghetti-Monster.html>

“To be clear, emergence is a philosophical or metaphysical hypothesis rather than a theological doctrine or scientific datum. Yet the theory of emergence, Clayton suggests, identifies patterns of developments in the natural history of the cosmos as understood through the findings of the various scientific disciplines. ...” [6, p. 145]

In other words, emergence philosophy as proposed by Clayton<sup>39</sup> seems to be founded on certain metaphysical assumptions on how nature functions. We will not go into details of Emergence here, suffice it to say (with all respect to Amos Yong as a leading contemporary theological scholar from Fuller) that there is danger that we do **eisegesis** on biblical narratives, rather than doing a fair and faithful reading (exegesis) on Biblical account of Creation.

Therefore in the next section we shall show what we can infer from Biblical narratives, with minimal assumptions, i.e. using hermeneutics of Sherlock Holmes.

## **How *creatio ex-rotatione* may Resolve Dispute on the Origin of the Universe through re-reading Gen. 1:1-2**

### **1. Introduction**

In recent years, the Big Bang as described by the Lambda CDM-Standard Model Cosmology has become widely accepted by majority of physics and cosmology communities. But the philosophical problems remain, as Vaas pointed out: Did the universe have a beginning or does it exist forever, i.e. is it eternal at least in relation to the past? This fundamental question was a main topic in ancient philosophy of nature and the Middle Ages. Philosophically it was more or less banished then by Immanuel Kant’s *Critique of Pure Reason*. But it used to have and still has its revival in modern physical cosmology both in the controversy between the big bang and steady state models some decades ago and in the contemporary attempts to explain the big bang within a quantum cosmological framework.

Interestingly, Vaas also noted that Immanuel Kant, in his *Critique of Pure Reason* (1781/1787), argued that it is possible to prove both that the world has a beginning and that it is eternal (first

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<sup>39</sup> <http://philipclayton.net/files/papers/EmergenceOfSpirit.pdf>

antinomy of pure reason, A426f/B454f). As Kant believed he could overcome this „self-contradiction of reason“ („*Widerspruch der Vernunft mit ihr selbst*“, A740) by what he called „*transcendental idealism*“, the question whether the cosmos exists forever or not has almost vanished in philosophical discussions. [3]

In this paper we will take a closer look at Genesis 1:2 to see whether the widely-accepted notion of *creation ex-nihilo* is supported by Hebrew Bible or not. It turns out that a new concept called **creatio ex-rotatione** is in agreement with Kant and Vaas’s position, it offers a resolution to the long standing disputes between beginning and eternity of the Universe. In other words, in this respect we agree with Vaas: “how a conceptual and perhaps physical solution of the temporal aspect of Immanuel Kant’s „*first antinomy of pure reason*“ is possible, i.e. how our universe in some respect could have both a beginning and an eternal existence. Therefore, paradoxically, there might have been a time before time or a beginning of time in time.”[3]

## 2. Preliminary remark on Hermeneutics of Sherlock Holmes

In the preceding section, we have discussed on how our proposed term of “*creatio ex-rotatione*” has sufficient logical background.

In the subsequent section we will discuss how to answer this question by the lens of hermeneutics of Sherlock Holmes. This is a tool of mind which we think to be a better way compared to critical hermeneutics.

- What is *Hermeneutics of Sherlock Holmes*?<sup>40</sup>
- The following are 10 tips from Eric McKiddie to adapt Sherlock Holmes to interpreting biblical passages:<sup>41</sup>
  - Tip no 1:

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<sup>40</sup> <https://www.str.org/blog/learning-hermeneutics-from-holmes>

<sup>41</sup> <https://www.thegospelcoalition.org/blogs/trevin-wax/10-tips-on-solving-mysterious-bible-passages-from-sherlock-holmes/>



*Holmes: “I have no data yet. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.”*

Far too often students of the Bible (and cosmology folks as well) twist verses to suit interpretations instead of formulating interpretations to suit what the verses say.

Guide: Don’t approach your passage assuming you know what it means. Rather, use the data in the passage – the words that are used and how they fit together – to point you toward the correct interpretation.

○ Tip no 2: **The kind of looking that solves mysteries.**

- *Holmes: “You have frequently seen the steps which lead up from the hall to this room.”*
- *Watson: “Hundreds of times.”*
- *Holmes: “Then how many are there?”*
- *Watson: “How many? I don’t know!”*
- *Holmes: “Quite so! You have not observed. And yet you have seen. That is just my point. Now, I know that there are seventeen steps, because I have both seen and observed.”*
- There is a difference between reading a Bible verse and observing it. Observation is a way of collecting details contained in a passage. As you read and reread the verses, pull the words into your brain where you can think about them and figure them out.
- This habit will shed light on how you understand the text, even if the passage is as familiar as the stairs in your house.

○ Tip no 3: **Know what to look for.**

- *Watson: “You appeared to [see] what was quite invisible to me.”*
- *Holmes: “Not invisible but unnoticed, Watson. You did not know where to look, and so you missed all that was important.”*
- Know where to look for clues that will illuminate your passage. Look for repeated words and phrases, bookends (where the beginning and end of the passage contain similarities), and clues in the context around your passage.
- Don’t know what to look for? [\*Living by the Book\*](#) by Howard Hendricks and [\*How to Read the Bible for All Its Worth\*](#) by Gordon Fee and Douglas Stuart are great resources to start learning how to study the Bible.

○ Tip no 4: **Mundane details are important!**

- *Watson: “I had expected to see Sherlock Holmes impatient under this rambling and inconsequential narrative, but, on the contrary, he had listened with the greatest concentration of attention.”*

- Don't ignore parts of the passage that seem insignificant to its meaning. Treat every word as if it contains clues to the interpretation of the passage.
  - Tip no 5: **Use solutions to little mysteries to solve bigger ones.**
- *Holmes: "The ideal reasoner would, when he had once been shown a single fact in all its bearings, deduce from it not only all the chain of events which led up to it but also all the results which would follow from it."*
- Once you understand the passage that baffled you, your work is not done!
- Now it's time to locate that passage in the grand narrative of the Bible. How do previous books and stories lead up to your passage? How does your passage anticipate the consummation of all things that results at Jesus' second coming?
  - Tip no 6: **The harder the mystery, the more evidence you need.**
- *"This is a very deep business," Holmes said at last. "There are a thousand details which I should desire to know before I decide upon our course of action."*
- In grad school, one professor gave us an assignment requiring us students to make 75 observations on [Acts 1:8](#). The verse does not even contain that many words!
- The professor's goal was to train us in compiling evidence. Harder Bible passages demand that we collect as much information as possible.
  - Tip no 7: **Break big mysteries down into little ones.**
- *Watson: "Holmes walked slowly round and examined each and all of [the pieces of evidence] with the keenest interest."*
- Difficult passages can be overwhelming. Break chapters down into paragraphs, paragraphs into verses, and verses into clauses. Devote careful attention to each chunk of the passage individually. Then try to piece together the meaning they have when added up as a whole.
  - Tip no 8: **Don't be so committed to a solution that you ignore new evidence.**
- *"I had," said Holmes, "come to an entirely erroneous conclusion which shows, my dear Watson, how dangerous it always is to reason from insufficient data...I can only claim the merit that I instantly reconsidered my position."*
- After you've put the hard work into grasping a mysterious passage, the case isn't necessarily closed. Often you'll run across other passages that shed new light on your passage. Or you'll hear someone preach those verses in a different way than how you interpreted it.
- Always be willing to consider new insights. This will at least help you nuance your understanding of the passage, if not take a different stance.
  - Tip no 9: **Simple solutions often provide answers to manifold mysteries.**

- *Holmes: “The case has been an interesting one...because it serves to show very clearly how simple the explanation may be of an affair which at first sight seems to be almost inexplicable.”*
- Many passages that seem mysterious at first end up not being so bad. Their bark is worse than their bite. For example, several passages in Revelation, intimidating to so many, have simple explanations. (Not all, but some!)
  - Tip no 10: **On the other hand, so-called simple passages may be more complicated than initially meets the eye.**
- *Holmes: “This matter really strikes very much deeper than either you or the police were at first inclined to think. It appeared to you to be a simple case; to me it seems exceedingly complex.”*
- This is often true of coffee mug and bumper sticker verses. We think they are simple to understand because we see them all the time. But once you dig into them, you realize they are more mysterious than meets the eye.

### 3. A close reading at Genesis 1:1-2 and implications

One of the biggest mysteries in cosmogony and cosmology studies is perhaps: *How to interpret properly Genesis chapter 1:2*. Traditionally, philosophers proposed that God created the Universe out of nothingness (from reading “empty and formless” and “*bara*” words; this contention is called “*creatio ex nihilo*.”). Understandably, such a model can lead to various interpretations, including the notorious “cosmic egg” (primeval atom) model as suggested by Georges Lemaitre, which then led to Big Bang model.[18-20] Subsequently, many cosmologists accept it without asking, that Big Bang stands as the most faithful and nearest theory to Biblical account of creation. But we can ask: Is that primeval atom model the true and faithful reading of Genesis 1:2?

Let us start our discussion with examining key biblical words of Hebrew Bible, especially Genesis 1:1-2. It can be shown that the widely accepted creation ex nihilo is a *post-biblical invention*, rather than as faithful reading of the verses. To quote Ian Barbour: “*Creation out of nothing is not a biblical concept.*”[4]

Let us consider some biblical passages:

- The literal meaning of Gen. 1:1, “*bareishit bara Elohim.*” This very first statement of the book of Genesis literally reads: ‘first’ and ‘beginning’ are reasonable alternatives for the

Hebrew noun, *reishit*. Also note that in Hebrew, subjects and verbs are usually ordered verb-first (unlike English in which the subject is written first). If the verb and subject of this verse are reordered according to natural English grammar we read: [1]

{In, When} {first, beginning} Elohim created...

**reishit**: The noun, reishit, has as its root the letters, *רש* (Resh -Aleph-Shin). Words derived from this root often carry the meaning of ‘primary’, ‘chief’, ‘begin’, ‘first’ or “first-in-line”, “head of”, and so forth. Harris’s Theological Wordbook of the Old Testament (TWOT) is more specific, namely, reishit means[1]

*“...first, beginning, choicest, first or best of a group. [Reishit is] a feminine noun derived from the root [Resh-Aleph-Shin], it appears fifty times in nearly all parts of the [Old Testament]. [Its] primary meaning is “first” or “beginning” of a series.”*

Accordingly, we can now retranslate *bəreishit bara Elohim* as “When first created Elohim”, or as we would render in English,[1]

*When Elohim first created...*

- Gen. 1:2, “And the earth had been.” In English this is easily handled by the past perfect tense (also called the pluperfect or the “flashback” tense). Likewise, if *haytah* in v 1:2 is translated as a past perfect verb, then verses 1:1-2 would read,[1]

*When Elohim first created the heavens and the earth, the earth had been ...*

In this translation the universe, in some form or other, was already in existence when God executed His first creative act, the creation of light.

In other words, a close reading of Hebrew Bible seems to suggest that *creatio ex-nihilo* is a post-biblical invention. Other scholars have suggested an alternative concept, called *creatio ex-materia*, but many orthodox Christian scholars have raised objection to this notion, partly because the term seems to undermine God’s ultimate power and control of the Universe. Besides, the notion of *creatio ex-materia* has been advocated by Mormon preachers.

To overcome this problem, and based on what we learned recently, allow us now to come up with a new term: **creatio ex-rotatione** (rotatione is a Latin word for “rotation”). As we shall see in the next chapter, it is possible to come up with a physical model of early Universe with rotation, where the raw materials have been existed for long period of time, but suddenly it burst out into creation. And it seems to fit with Kant’s idea to resolve the dichotomy between finite past or eternal

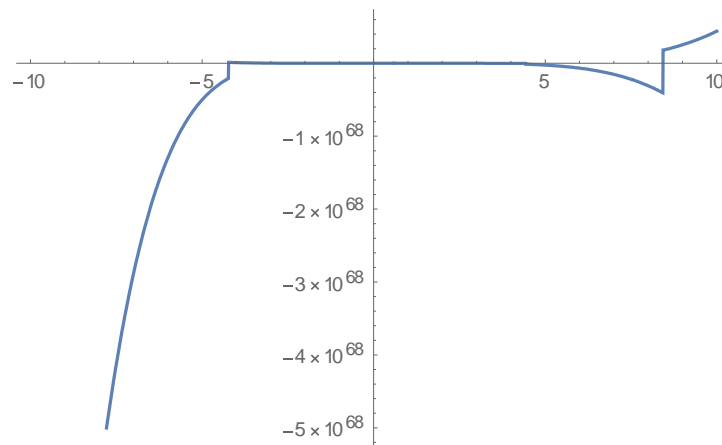
Universe. Furthermore, it can be shown that the model naturally leads to accelerated expansion, without having to invoke *ad hoc* assumptions like dark energy or cosmological constant.

#### 4. A computational model of rotation in early Universe

Our discussion starts from the fundamental question: how can we include the rotation in early Universe model? After answering that question, we will discuss how “turbulence-generated sound” can be put into a mathematical model for the early Universe. We are aware that the notion of turbulence-generated sound is not new term at all especially in aerodynamics, but the term is rarely used in cosmology until now. We shall show that 3D Navier-Stokes will lead to non-linear acoustics models, which means that a turbulence/storm can generate sound wave.

It has been known for long time that most of the existing cosmology models have singularity problem. Cosmological singularity has been a consequence of excessive symmetry of flow, such as “Hubble’s law”. More realistic one is suggested, based on Newtonian cosmology model but here we include the vortical-rotational effect of the whole Universe.

In other paper, we obtained an Ermakov-type equation following Nurgaliev [8]. Then we solve it numerically using Mathematica 11. An interesting result from that simple computational simulation is shown in the following diagram:[9]



**Diagram 1.** Plot of Ermakov-type solution for  $A=1$ ,  $B=-10$  (from [9])

From the above computational experiment, we conclude that the evolution of the Universe depends on the constants involved, especially on the rotational-vortex structure of the Universe. This needs to be investigated in more detailed for sure.

One conclusion that we may derive especially from Diagram 1, is that our computational simulation suggests that it is possible to consider that the Universe has existed for long time in prolonged stagnation period, then suddenly it burst out from *empty and formless* (Gen. 1:2), to take its current shape with observed “accelerated expansion.”

As an implication, we may arrive at a precise model of flattening velocity of galaxies without having to invoke *ad-hoc* assumptions such as dark matter.

Therefore, it is perhaps noteworthy to discuss briefly a simple model of galaxies based on a postulate of turbulence vortices which govern the galaxy dynamics. The result of Vatistas’ model equation can yield prediction which is close to observation, as shown in the following diagram:[14]

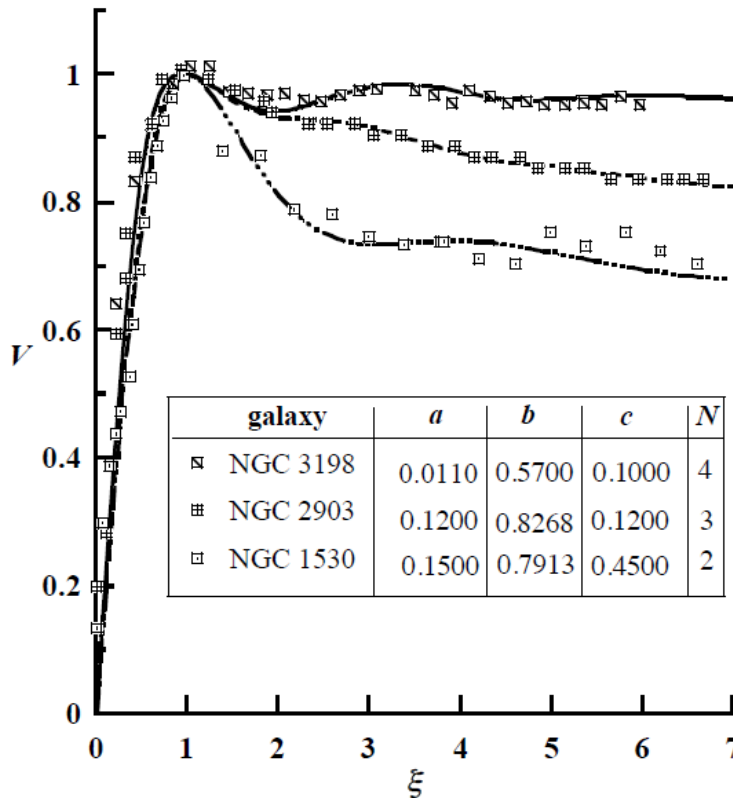


Figure 1. From Vatistas [14]

Therefore, it appears possible to model galaxies without invoking numerous *ad hoc* assumptions such as *dark matter*, once we accept the existence of turbulent interstellar medium. The Vastitas model is also governed by Navier-Stokes equations, see for instance [14].

## 5. Advantages of “*creatio ex-rotatione*” concept

In the preceding section, we have discussed on how our proposed term of “*creatio ex-rotatione*” has sufficient logical background.

Now, allow us to discuss some advantages of the proposed “*creatio ex-rotatione*” cosmology view over the Lemaitre’s primeval atom (which is the basis of Standard Model Cosmology).

a. Explain excess of handedness in spiral galaxies

As reported by Longo et al, there is an excess of left-handedness in spiral galaxies.

According to Longo, the simplest explanation of such left-handedness is that there is net angular momentum of the Universe. This seems to suggest that our hypothesis of *creatio ex-rotatione* is closer to the truth with respect to origin of the Universe. [2]

See also the Appendix section.

b. Avoid inflationary scheme.

It is known that inflationary models were proposed by Alan Guth et al. (see [25][26]), in order to explain certain difficulties in the Big Bang scenario. But some cosmology experts such as Hollands & Wald has raised some difficulties with inflationary model, as follows:

*“We argue that the explanations provided by inflation for the homogeneity, isotropy, and flatness of our universe are not satisfactory, and that a proper explanation of these features will require a much deeper understanding of the initial state of our universe.”[27]*

In our diagram plot above, it is clear that an early rotation model can explain why the Universe can burst out into creation in a very short period, without invoking ad hoc postulate such as inflation model.

c. Explain accelerated expansion.

As far as we know, one of the earliest models which gave prediction of accelerated expanding Universe is Carmeli's Cosmological General Relativity.[29]

But it has been shown by Green & Wald that for the large scale structures of the Universe, Newtonian model can give similar results compared to general relativity picture.[28]

Furthermore, it seems that there is no quite clear arguments why we should accept Carmeli use of 5D metric model (space-time-velocity metric). In the meantime, in our rotating Universe model, we do not invoke ad hoc dimension into the metric.

d. Explain inhomogeneity, breeding galaxies etc.

Astronomers have known for long time, that the Universe is not homogeneous and isotropic as in the usual model. It contains of inhomogeneity, irregularity, clumpiness, voids, filaments etc, which indicate complex structures. Such inhomogeneous structures may be better modelled in terms of turbulence model such as Navier-Stokes equations, see also our early papers [11][12].

Furthermore, observations clearly suggest that matter ejected continuously in galaxy centers, which view is difficult to reconcile with Big Bang scenario of galaxy creation.

## Concluding Remarks

In summary we argue that: (a) while both the Big Bang originator and Christian writers shared similar concept of *creatio ex nihilo*, they have different views on "primeval atom," (b) even the idea of primeval atom itself seems in direct contradiction with "ex nihilo" term; (c) the proposed *creatio ex-rotatione* offers a resolution to the long standing disputes between beginning and eternity of the Universe. In other words, in this respect we agree with Vaas, i.e. it can be shown: "how a conceptual and perhaps physical solution of the temporal aspect of Immanuel Kant's „*first*



*antinomy of pure reason*“ is possible, i.e. how our universe in some respect could have both a beginning and an eternal existence. Therefore, paradoxically, there might have been a time before time or a beginning of time in time.”

We argue that a close re-reading of Genesis 1:2 will lead us to another viable story which is different from Lemaitre’s primeval atom model of early Universe, albeit this alternative has not been developed rigorously as LCDM theories.

It is our hope that our exploration will lead to more realistic nonlinear cosmology theories which are better in terms of observations, and also more faithful to Biblical account of creation.

*We hope this short review may inspire younger generation of physicists and biologists to rethink and renew their approaches to Nature, and perhaps it may also help to generate new theories which will be useful for a better future of mankind.*

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VC

### Section 3: Notes on biology, consciousness and the Spirit



Philosophical roots: the  
'hermeneutic turn'

Very brief review...

# **A few comments on Montagnier and Gariaev's work: Omne vivum ex vivo via crebritudo?**

Victor Christianto<sup>42</sup> & Yunita Umniyati<sup>43</sup>

## **Abstract**

In a series of papers, Luc Montagnier and his group reported various effects of electromagnetic fields to DNA. It has been shown that genetic information can be transmitted to water through applications of electromagnetic field. These experiments seem to confirm what have been done by Peter Gariaev and his group in the past 3 decades, i.e. that DNA has wave character. Of course, non-particle view of DNA challenges standard paradigm of DNA and biology. The purpose of this paper is to review shortly such a non-particle view of DNA. To conclude, then we consider an extension of known adage: “*Omne vivum ex vivo*”, to become “*Omne vivum ex vivo via crebritudo*” (crebritudo is the Latin word for “frequency”).

## **Introduction**

In a series of papers, Luc Montagnier and his group reported various effects of electromagnetic fields to DNA. It has been shown that genetical information can be transmitted to water through applications of electromagnetic field.[2][3] These experiments seem to confirm what have been done by Peter Gariaev and his group in the past 3 decades, i.e. that DNA has wave character. Of course, non-particle view of DNA challenges standard paradigm of DNA and biology. The purpose of this paper is to review shortly such a non-particle view of DNA.

Concluding her review on Montagnier's experiments, Laurence Hecht wrote [1]:

“With the results of Montagnier, we recognize that the principle, *omne vivum ex vivo*, still holds, but only on the condition that we adopt a non-particle conception of life.”

Considering that there are extensive reports since 1980s concerning the possibility of long distance communication between cells, especially using em. Field, then it seems appropriate to consider an extension of known adage: “*Omne vivum ex vivo*”, to become “*Omne vivum ex vivo via crebritudo*” (Note: crebritudo is the Latin word for frequency).

## **DNA and De Broglie's matter-wave hypothesis**

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Experiments carried out by Montagnier group seem to suggest that genetic information can be transmitted to water via electromagnetic waves. This conclusion is quite impressive, since it challenges standard paradigm in biology.[2][3] And it is related to Gariaev's proposal of DNA wave genetic.[4][5][6]

That cell has capability to communicate at a distance may be not surprising, since there are reports indicating that effect.[7][8] But that electromagnetic field can transmit genetic information to water is unexpected result.

Nonetheless, it seems that this result bring us back to an old battle between corpuscular view and wave view of matter, i.e. Newtonian corpuscular model vis a vis Huygens-Fresnel's wave model of matter.

Louis De Broglie seems to give a hint on that issue by proposing matter-wave hypothesis, but it appears that this issue is not solved completely.

For clarity, let us put aside objections on Einstein's special relativity. Let us follow De Broglie's argument in his thesis:

$$E = \hbar f, \tag{1}$$

And

$$E = mc^2. \tag{2}$$

Equating (1) and (2) we get:

$$\hbar f = mc^2, \tag{3}$$

or

$$m = f \frac{\hbar}{c^2}. \tag{4}$$

In other words, matter comes from frequency. Therefore, it seems possible at least in theory that not only em. Field can transmit genetic information to water, but also that em. Frequency can alter genetic code.

As a note, although our starting point of using (1) and (2) comes from De Broglie's original proposal, but the conclusion is rather different, because then we do not have to accept his pilot wave model. Of course, you do not have to follow this argument, since you can also define energy in classical em. Field.

It seems that equation (4) can give some hints to explain many phenomena related to Montagnier and Gariaev's experiments. And it opens new ways to do DNA as quantum biocomputer. [4]

If this proposition holds true, then it is possible to extend the old adage: "all life come from life" (*Omne vivum ex vivo*) to become "all life come from life through frequency" (*Omne vivum ex*

*vivo via crebritudo*). This is because genetic information can be altered or transmitted through em. Field and Frequency.

As an alternative word, one can use ‘frequentia’, so it becomes: “*Omne vivum ex vivo via frequentia.*” (We have not yet consulted a Latin linguist.)

### **Possible test of the proposed concept**

We recognize that the proposed new concept of “all life come from life through frequency” (*Omne vivum ex vivo via crebritudo*) challenges the standard paradigm in biology. So, allow us to suggest a possible test of the proposed concept, as follows.

Provided we define  $f$  = yield frequency, i.e. frequency where matter becomes wave.

Then by defining a new parameter:

$$k = \frac{\hbar}{c^2}, \quad (5)$$

Then we can write equation (4) as a ratio:

$$\frac{m}{f} = k. \quad (6)$$

In other words, from the above equation we can predict that the ratio between a small mass ( $m$ ) like photon with its yield frequency ( $f$ ) is always a constant. The small mass here can be extended to neutrino, electron, muon etc.

We hope that the above equation can serve as a means to test the proposed concept.

### **Possible application**

One possible application of this proposition is alternative method of cancer treatment using various frequencies. It is known that some frequencies like 444Hz can kill cancer cell without destroying the normal cells. Such a method seems worthy to be investigated and developed further.[9]

Luc Montagnier et al. also uses very low frequency such as 7.83 Hz, which seems to be closely related to the Schumann resonance of 7 Hz. Whether or not such a 7.83 Hz corresponds to ambient frequency of electromagnetic noise in water, should be tested with experiments.

In the next section we will discuss models of DNA as solitary wave (soliton). This model will enable us to verify how DNA interacts with external em. Frequency.



## DNA as Perturbed SGE Soliton

There are various models of DNA, one of them is using solitary wave [10]. Its use as a model of phyllotaxis systems including DNA has been proposed elsewhere [11][12][13][14].

Now we will only consider Perturbed sine-Gordon equation (PSGE) as a model of interaction between soliton and external em. Field.

Perturbed SGE come in a variety of forms. One common form is a damped and driven SGE: [11, p.17]

$$\Psi_{tt} + \Phi\Psi_t - \Psi_{zz} + \sin(\Psi) = F \quad (7)$$

In addition, the following two versions of the perturbed SGE have been studied in the literature, including:

a. Directly forced SGE: [11, p.19]

$$\Psi_{tt} - \Psi_{zz} + \sin(\Psi) = Mf(\omega t) \quad (8)$$

b. Damped and driven SGE:

$$\Psi_{tt} - \Psi_{zz} + \sin(\Psi) = Mf(\omega t) - \alpha\Psi_t + \eta \quad (9)$$

In the meantime, (2+1)D SGE with additional spatial coordinate (y) is defined as: [11,p.21]

$$\Psi_{tt} = \Psi_{xx} + \Psi_{yy} - \sin(\Psi) \quad (10)$$

In their in-depth review of SGE, Ivancevic and Ivancevic [11] discuss potential applications of SGE solitons in DNA, protein folding, microtubules, neural impulse conduction and muscular contraction soliton. New insights may be expected in the near future in these biological fields, based on sine-Gordon equation soliton.

## Concluding remarks

In a series of papers, Luc Montagnier and his group reported various effects of electromagnetic fields to DNA. It has been shown that genetical information can be transmitted to water through applications of electromagnetic field. These experiments seem to confirm what have been done by Peter Gariaev and his group in the past 3 decades, i.e. that DNA has wave character. Of course, non-particle view of DNA challenges standard paradigm of DNA and biology. The purpose of this paper is to review shortly such a non-particle view of DNA.



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2 weeks before Easter Holiday

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# An integral triune model of human consciousness and its implications to cancer treatment

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## Abstract

To emphasize what we have outlined in a preceding paper, we consider the following: that human consciousness model should take into consideration “spirit” role, i.e. the mind-body-spirit as integral aspect, which view is neglected in the so-called Freudian mental model. In this paper, we consider two approaches to cancer treatment derived from such an integral triune view of human consciousness, including (a) healing frequency approach as advised by Royal Rife and David Hawkins, and also (b) relational therapy, based on recent research on the healing role of love and compassion.

"Those of you who are truly happy are those who have sought and found a way to serve." Albert Schweitzer, MD

## Introduction

In our previous paper which was also published in this journal, we discussed a new integral view of human consciousness beyond Freudian mental model.[1]

Among other things, we consider the following: that human consciousness model should take into consideration “spirit” role, i.e. the mind-body-spirit as integral aspect, which view is neglected in the so-called Freudian mental model.

And in this paper, we consider two approaches to cancer treatment derived from such an integral triune view of human consciousness, including (a) healing frequency approach as advised by

Royal Rife and David Hawkins, and also (b) *relational therapy*, based on recent research on the healing role of compassion and love.

### **Toward Pneumatological view of psyche or human consciousness**

We all know that Hebrew's thought on human being is integral, i.e. the wholeness of *body-mind-spirit*. But how can we come up with a model of human consciousness based on the Bible?

As a starting point, we choose to begin with Jesus's sayings, instead of using other trivial sources.

Let us begin by the Greatest Commandments

Matthew 22:37-40 **King James Version (KJV)**

*<sup>37</sup> Jesus said unto him, Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind.*

*<sup>38</sup> This is the first and great commandment.*

*<sup>39</sup> And the second is like unto it, Thou shalt love thy neighbour as thyself.*

*<sup>40</sup> On these two commandments hang all the law and the prophets.*

Our re-reading of the above commandments lead us to model a Trinitarian dialogue within human self: *God, self, and others*.<sup>44</sup>

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<sup>44</sup> For an alternative reading of Mat. 22, see Vern Poythress's article: <https://frame-poythress.org/the-greatest-commandment-the-very-heart-of-the-matter/>

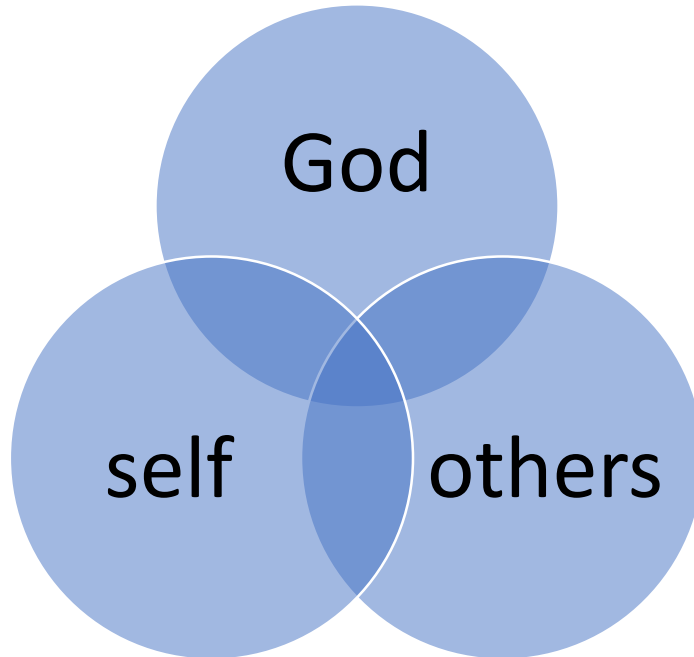


Figure 1. Three directions of human love based on The Greatest Commandments in Matthew 22:37-40.

Comparing with Adam Grant’s give and take model of human basic tensions inside our mind. Let us consider parallels, i.e. “*taking*” reflects selfishness/greediness motive of ego, and “*giving*” reflects altruism motive of conscience.

In other words, now we have two entities in human consciousness: ego and conscience. There is always deep tension between ego and consciousness, between selfishness and altruism. Along these two poles, we need a third entity which has purpose to ease and being intermediary between these two motives. In this problem, along with *Neutrosophic Logic* [2],<sup>45</sup> allow us to

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<sup>45</sup> As a simple introduction to Neutrosophic Logic, allow us to quote from ref. [3]: “Neutrosophic Logic (NL) is a Theory of Everything in logics, since it is the most general so far. In the Neutrosophic Propositional Calculus a neutrosophic proposition has the truth value (T, I, F), where T is the degree of truth, I is the degree of indeterminacy (or neutral, i.e. neither truth nor falsehood), and F is the degree of falsehood, where T, I, F standard or non-standard subsets of the non-standard unit interval ]-0, 1+[. In addition, these values may vary over time, space, hidden parameters, etc. Therefore, NL is a triple-infinite logic but, by splitting the Indeterminacy, we prove in this article that NL is a n-infinite logic, with  $n = 1, 2, 3, 4, 5, 6, \dots$ . The neutrosophic component of Indeterminacy can be split into more subcategories, for example Belnap split Indeterminacy into: the paradox (<A> and <anti-A>) and uncertainty (<A> or <anti-A>), while truth would be <A>, and falsehood <anti-A>. This way Belnap got his four-valued logic. In neutrosophy we can combine <A> and <non-A>, getting a degree of <A> a degree of <neut-A> and a degree of <anti-A>. <A> actually gives birth to <antiA> and <neut-A>.

submit wholeheartedly that the third entity, is actually no other than “the spirit.” (*pneuma* in Greek, *ruach* in Hebrew)



Figure 2. A model of human consciousness based on The Greatest Commandments in Matthew 22:37-40.<sup>46</sup>

The exact role of human spirit is to enlighten both ego and conscience. Some readers may raise question at this point: *what is new here?* It seems similar with Freud’s id-ego-superego model. (This proposed model is an extension of Neutropsychie model, see [17]).

No, it is really in contrast with Freud’s model which is purely *materialistic* in origin. The notion of spirit is rejected in Freud’s model; that is why mankind reduces to animals in his model, determined by his/her sexual instinct. And there is no way out of such animal instinct in his model.

In essence, what we propose with this new model of human consciousness can be summarized in L. Buscaglia’s words: “*Love and self are one and the discovery of either is the realization of both.*”<sup>47</sup> In other words, the essence of our identity is love, and once we realize that God has created ourselves to love and be loved, then this realization will lead us to become a whole

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<sup>46</sup> This model may be compared to Jung’s personality model, which includes individual unconscious and collective unconscious.

<sup>47</sup> <https://www.goodreads.com/quotes/1201650-love-and-self-are-one-and-the-discovery-of-either>

human, and such a wholeness will lead to healing from all kind of diseases. Just like what we know from many spiritual teachers, that love has true healing effect.

Did you ever hear a story about a rich old lady who suffers acute kidney illness? One day, she went to the hospital after an arrangement with her doctor, that she would get new kidney transplanted to her body. But she never knew who the donor of her kidney is. Just few hours before the transplantation surgery, she walked around the hospital, just to look around. And she met with a younger woman who cries, and that old lady asked her what makes her crying. And she told that she has a very poor family and she needs money to feed her baby, and that is why she decides to give up her kidney in exchange for some money. The old lady realized that she spoke to the donor of her kidney, and she felt empathy to that young woman. Then the old lady said: Alright, you don't be worrying, I will help you with what I got and I will talk to the doctor so you don't have to give up your kidney. Then she met with her doctor, and she told him: "I am already old, and sooner or later I will die. And I was gifted with so many blessings throughout my life, so I don't have to undergo this kidney transplantation." Then she decided to cancel the kidney transplantation process, and she said to the doctor to give her money of all operation procedure to that young woman who offered her kidney. Then the old lady went home. Two or three days later, she felt really well, then she took medical checkup, then doctors told her that her kidney problem has disappeared.

We hope you understand the morale of the story above: that love and compassion has healing effect, albeit the mechanism "how can it possibly happen" may be quite delicate. And this paper try to elucidate the answers to that question.

Therefore, in this paper, we will discuss two possible approaches to cancer treatment, namely: (a) a modified Rife frequency generator combined with David Hawkins's scale of consciousness (see [11][12]), and (b) a method based on healing effect of compassion-love, which we propose to call: *Relational Therapy*.

The following sections will discuss these two approaches.

## **Part A: healing frequency based on David Hawkins and Rife frequency generator**

In 1992, Bruce Tainio of Tainio Technology, an independent division of Eastern State University in Cheney, Washington, built the first frequency monitor in the world. Tainio has determined that the average frequency of the human body during the daytime is 62-68 MHz. A healthy body frequency is 62-72 MHz. While his result appears natural and intuitive, its practical applications to cancer treatment are so deep. See [11].

There is also an article discussing how Royal Rife's invention of new type of microscope based on polarized light, led to discovery of BX virus as the cause of most cancer cells, and Rife also succeeded to discover novel way to destroy those cells by applying certain frequency.[12] Alas, his novel machine was banned and Rife was suddenly killed. But later on, some doctors and researchers began to realize that Rife's method is the real way to defeat and cure cancer cells.

From a different perspective, the exact role of human body frequency and how it relates to illness have also been proposed by Sir David Hawkins, especially in his book: *Power vs. Force*. [5]

His line of thoughts can be summarized as follows:

“It was the late David R. Hawkins, M.D., Ph.D., a renowned psychiatrist and consciousness researcher who said: “*If we are willing to let go of our illness, then we have to be willing to let go of the attitude that brought about the illness because disease is an expression of one's attitude and habitual way of looking at things.*”

When you disconnect from your authentic nature, you detach from your state of ease and the body becomes dis-eased. Love renews and restores inner harmony because every cell in your body is attuned to this natural healing state. I liken it to returning home after being away, to find your key still fits the same door lock. Healing arises when you align your mental and emotional frequency to coincide with love.

Love is a healing agent because its energetic frequency is stronger than other emotions and is the foundation of universal order.

“Your body is your subconscious mind and you can't heal it by talk alone,” affirmed the neuroscientist and pharmacologist Candace Pert.

As an example of the *healing power of love*, the Institute of HeartMath states that your heart has an electromagnetic field 50,000 times stronger than the brain's.



Ancient wisdom has known for centuries the heart is the seat of the soul. To heal means to reconnect with your soul within the embodiment of love. So, at the deepest level, healing is a return to the source of your being. You disconnect from this wisdom by identifying with fear and anxiety. This creates an inaccurate mental image expressed in the body as illness and disease.”<sup>48</sup>

A good summary of Hawkins’ book: Power vs. Force has been presented by John Maguire:

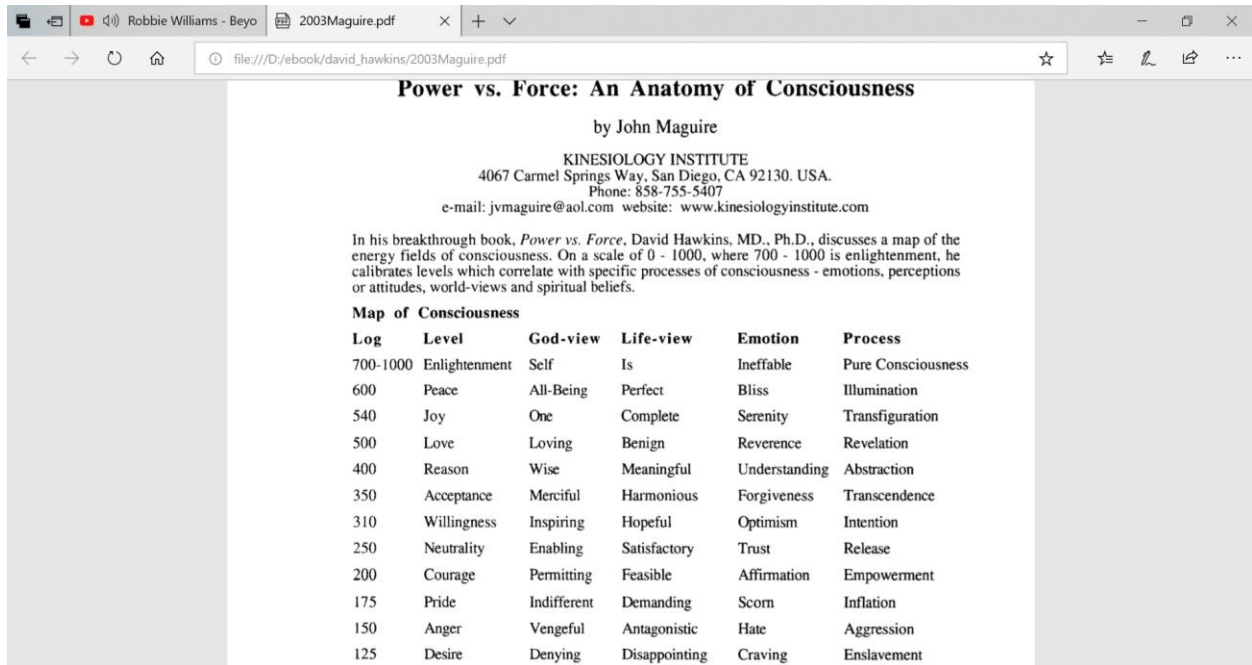


Figure 3. Anatomy of Consciousness, John Maguire.<sup>49</sup>

In the above figure, it becomes clear that: “All levels below 200 are destructive of life in both the individual and society at large. All levels above 200 are constructive expressions of power. Levels of consciousness are always mixed, so that a person may operate at one level of consciousness in one area of life and on a different level in other areas.”

John Maguire also wrote: “A person's physical and emotional health is affected by the consciousness they are resonating at. If someone is vibrating at a level below 50, they will have

<sup>48</sup> <https://medium.com/the-mission/why-the-healing-energy-of-love-is-a-powerful-force-206a295fae5a>

<sup>49</sup> [www.touchforhealtharchive.com/Journals/2003/2003Maguire.pdf](http://www.touchforhealtharchive.com/Journals/2003/2003Maguire.pdf)

very low self-esteem and feel responsible for the mess their life is in. They will often experience low energy and poor health. Their beliefs will reflect and support this state of consciousness and will further perpetuate their lack of worthiness and powerlessness. One way to help free a person from these states is to have them tap specific acupuncture points (SI 3) as they state, "I deeply and completely love and accept myself (which pulls them up above 200) even though I feel (guilt, shame or whatever the emotion they are stuck in)."

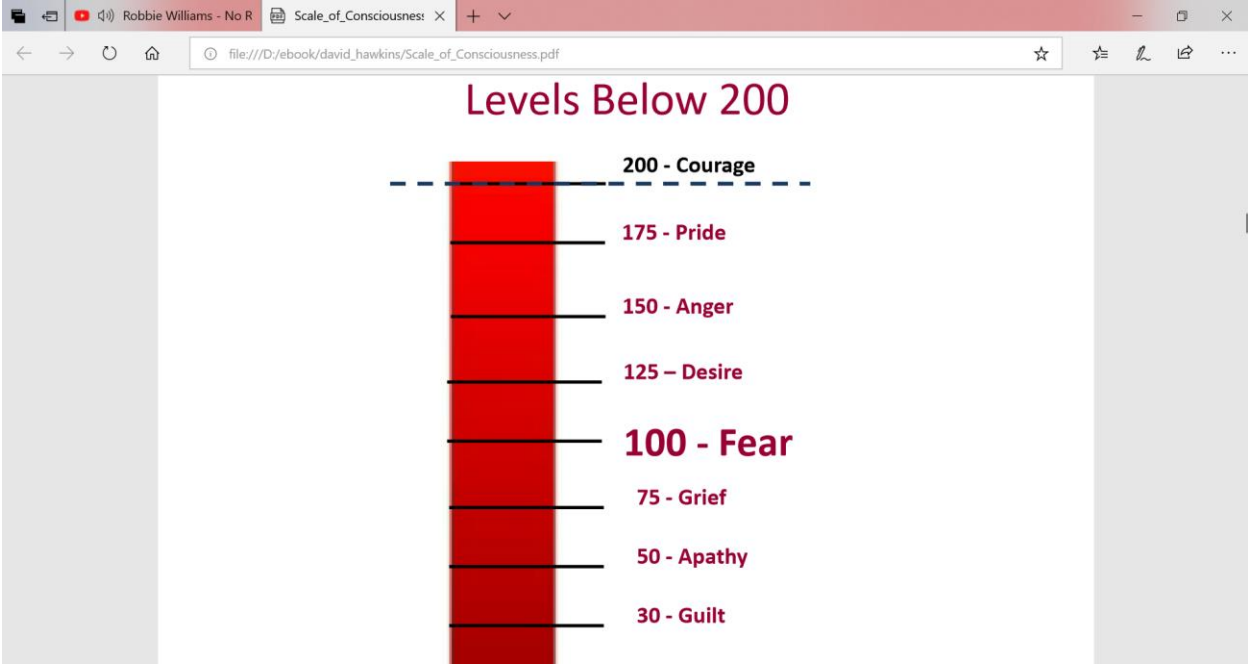


Figure 4a. Summary of Hawkins' Scale of Consciousness. See Ref. [5].

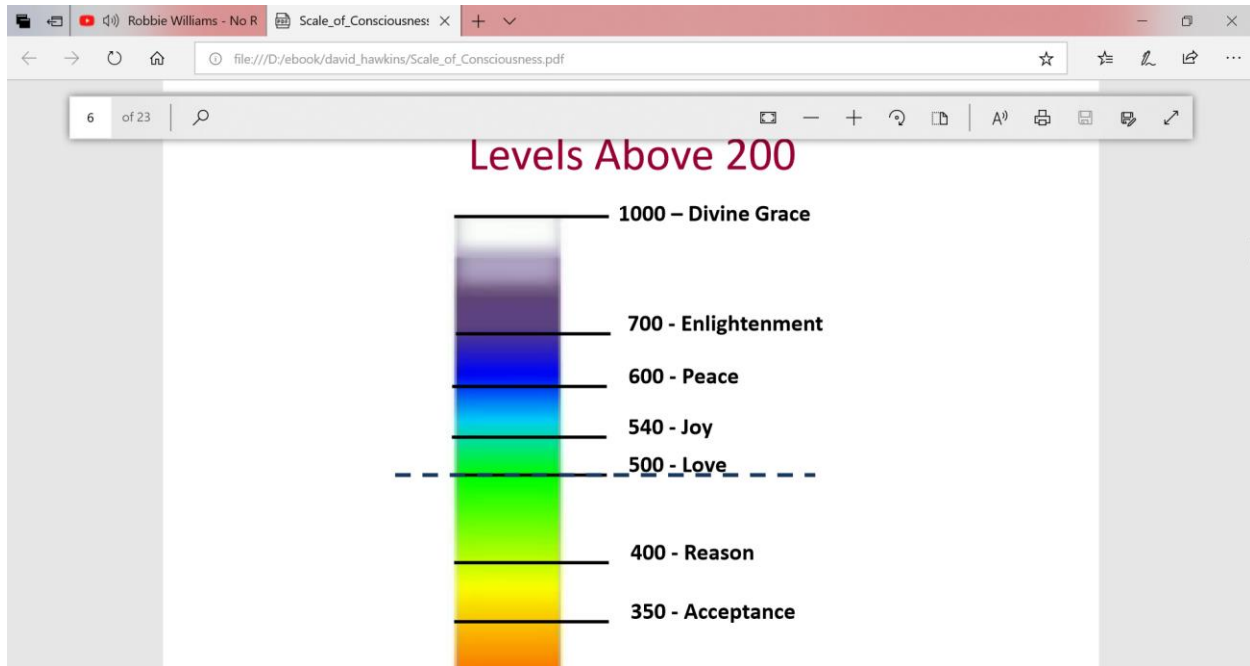


Figure 4b. Summary of Hawkins' Scale of Consciousness. See Ref. [5].

What is more interesting here, our story above about how giving and compassion heal kidney problem can be explained in this way: “Those who resonate in a state of fear (100) will often see situations and people around them as threatening. They may experience nervous disorders, gastrointestinal upset and *kidney problems*. Their outlook is that something bad is about to happen and they will try to do what they can to avoid that. To rise above 200 they could shift their focus to the good that surrounds them. By being proactive and focusing on positive emotions and expectations they will actually have more power to draw good into their life.”

Maguire also emphasizes on the effect of caring others:

“The two most important factors to raising your consciousness is where you put your focus and the meaning you make of things that happen to you. In states below 200 people's focus is primarily on themselves. Above 200 their focus is primarily on others. Buckminster Fuller once said, "The older I get the happier I become, because I am getting less and less preoccupied with myself."<sup>50</sup>

Hawkins also wrote about “*counterbalancing effect*” in 1995:

<sup>50</sup> <http://www.touchforhealtharchive.com/Journals/2003/2003Maguire.pdf>

“Although only 15 percent of the world’s population is above the critical consciousness level of 200, the collective power of the 15 percent has the weight to counterbalance the low vibrational resistance of the remaining 85 percent of the world’s people. Because the scale of power advances logarithmically, a single avatar at a consciousness level of 1000 could, in fact, totally counterbalance the collective negativity of all mankind.”[6]

Key summary of Hawkins’ ideas is as follows: “Our states of consciousness are *vibrational*. The levels can be calibrated on a relative scale of 0 - 1000, where below 200 are states which are destructive of life in both the individual and society at large. Above 200 are states which are constructive expressions of power. Everything, especially our beliefs, focus and identity affects our level of consciousness, either bringing us up or down in frequency. Our experience of life is an expression of our level of consciousness. Achieving lasting health, happiness and peace comes through attainment of higher levels of consciousness. We can measure our success *not by what we get, but by what we give.*”[6]

### **Part B: Relational Therapy or the healing effect of compassion-love**

Nelson Mandela once remarked: “*Our human compassion binds us the one to the other – not in pity or patronizingly, but as human beings who have learnt how to turn our common suffering into hope for the future.*”

Yes, we can accept his remark, but how to speak of compassion in terms of cancer treatment. Is there healing effect of compassion and love? We will take a deeper look into these questions in this section, which discussion allow us to submit a new method called: Relational Therapy.

First of all, let us admit that although a growing body of evidence suggests that giving to (helping) others is linked reliably to better health and longevity to the helper, the mechanism remains a mystery. However, there are recent papers which seem to support such a wide-held belief, see for instance [7].

Other research also suggests the neuroscience effect of *pro-social* behavior.[8]. A recent book by Adam Grant from Wharton also reveals on how giving to others may lead to better and happier life. [10]

Key ideas of Adam Grant can be summarized as follows:

“Depending on the situation, people can adopt different behaviors – they can take, give, or exchange. But usually, everyone has a dominant model that determines their behavior. All three models have their advantages and disadvantages. However, the author believes, and his view is supported by real-life experiences that givers receive fewer benefits, as they are guided by the interests of others and forget about their own interests. The link between giving and positive emotion is a cornerstone of Positive Psychology. Giving makes us happy. Studies have shown when subjects are given \$5 with instructions to give the money to a stranger, their **happiness** increases more than subjects who are given \$20 to spend on themselves (Dunn et.al. 2008).”[10]

And a significant work in this direction of research has been written: “The compassion connection.”[9]. Preface of their book begins with these words:

“As human beings, we are born with an innate and nearly limitless capacity for caring and compassion. We recognize when others around us are hurting; as the latest neuroscience has shown, we quite literally feel their pain—imaging studies have demonstrated that the same networks in the brain are activated whether people receive a painful stimulus themselves or are merely witnessing someone else receiving it. And we want to help. In fact, the human brain is actually wired for cooperation and giving. But we’re not always good at it. We say the wrong things, or we zero in on the wrong problems. Often we manage to do more harm than good, causing hurt feelings and even damaging relationships. But there is another way. In *The Compassionate Connection: The Healing Power of Empathy and Mindful Listening*, I explain that we all have the astounding ability to help others in a way that prompts their healing from within and strengthens our bonds with them—while doing emotional and physical good for ourselves in the process. Indeed, some social psychologists have theorized that giving may enhance the giver’s self-interest more than receiving. This is a two-way street.”[9]

The author also tells:

“*I learned the importance of the therapeutic ceremony and how the actual process of delivering care can dramatically enhance the effectiveness of what is prescribed.* Research now shows how this is possible—that is, how personal interactions can actually have physiological effects on patients.”[9]

In fact, that corresponds to the definition of integrative medicine:

“According to the Academic Consortium for Integrative Medicine and Health, it “reaffirms importance of *the relationship* between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic and lifestyle approaches, healthcare and disciplines to achieve optimal health and healing.”<sup>6</sup> Much of the information I had absorbed during my fellowship constellated around how to *stimulate self-healing mechanisms* within my patients’ bodies. This is part of what I like to think of as the “mystery and awe” of medicine.” [9]

That is what we argue in this section, that caring and compassion through authentic relationship can lead to self-healing process. That is why we call it: “*Relational therapy*,” to emphasize the

role of loving in healing, just as we heard numerous times in Greatest Commandments as quoted above.

While we are aware that the ideas presented here may be not complete yet, but we are convinced that these ideas of authentic relationship, caring and compassion are supported by solid body of evidence. And they may hold the key to autoimmunity system of human body.

Again, love and self are inseparable. In other words, a man or woman who do not want to care and practice compassion towards other people, we cannot call them just “*selfish*”, instead they are “*selfless*” – i.e. they are losing the meaning of being a human.

### **But what is *exactly* compassion?**

In the above section, we have discussed on the healing role of compassion and love. But some readers may ask: *what does compassion exactly mean?*

A literal definition of compassion can be found in dictionaries:

“The Concise Oxford English Dictionary defines “compassion” as “sympathetic pity and concern for the sufferings or misfortunes of others.” The Merriam-Webster’s Collegiate Dictionary defines “compassion” as “sympathetic consciousness of others’ distress together with a desire to alleviate it.”[15]

To find its true meaning, let us read a biblical text. One famous text in this regard is Luke 15:20:

“So he got up and went to his father. “But while he was still a long way off, his father saw him and was *filled with compassion* for him; he ran to his...”

The original Greek word which was translated into “filled with compassion” here is:

“*Esplanchnisth*. No, it's not a type of pasta. It's Greek, from the verb 'splanchnizomai', which we can inadequately translate in English as '*to have compassion*'.”[13]

The word *splanchnizomai* conveys a very deep meaning, which literally means something as “empathy until you have a kind of stomach ache.” See the following discussion for more clarity:

“*Splanchnizomai*... The Greek pronunciation is something like: splawnk-NITZ-oh-my. *Splanchnizomai* is one of the verbs that appear in [Luke 15:20](#), one of those which can make all the difference in the world.

In the NLT translation of Luke 15:20, *splagchnizomai* is translated as “filled with love and compassion.” This accurately renders the sense of the Greek verb. It is based on the Greek noun *splagchna* (SPLANK-nah), which means “internal organs” or “entrails.” Among speakers of first-century Greek, human emotions were thought to exist in the gut, whereas, in English, we speak of the heart as the home of our feelings.

As Jesus narrates the story of the lost son returning home, first, the father sees his son while he is still far away, suggesting the father’s longing for his son’s return. When he sees him, the father feels deep love and compassion for his son. According to Jesus, this portrays the way God sees us in our lostness. The compassion of God does not deny his just anger over our sin. Yet the God who judges our sin is the same God whose heart is moved by our sinful, lost condition.

The verb *splagchnizomai* is relatively uncommon in the New Testament. When it is used by a biblical writer, it usually describes the emotions of Jesus (8 out of 12 New Testament uses). In Luke 7:13, for example, when Jesus saw a woman mourning over her dead son, “his heart *overflowed with compassion*.” Thus, Jesus incarnates and exemplifies the compassion of God, making real what he so profoundly illustrates in the Parable of the Prodigal Son. The triune God, the God who became human in Jesus, not only acts with grace, but also feels compassion for the lost...including you.”[14]

That kind of compassion, *the divine compassion*, that makes healing possible, both to heal physical illness and also wounded–heart. In other words, you should be moved with compassion, just like Jesus were moved with compassion.

This is the kind of love that Father in Heaven has to his returning son. And the same word can be found repeatedly in The Gospel of Luke. Suffice it to say, that the Gospel of Luke is not only a Gospel for the outsiders and outcasts, but it can also be called a *Gospel of Compassionate God*.

But some readers may ask: who on Earth can do such a deep compassion? Not necessarily a believer, even an unbeliever who follows his heart can do that, as Jesus told in the Good Samaritan story:

“However, unlike the pillars of the Jewish religion, a priest and a Levite, Luke 10:33~”Then a despised Samaritan came along, and when he saw the man, he *felt compassion* (σπλαγχνίζομαι *splagchnizomai*) for him. (NLT).

The word compassion (σπλαγχνίζομαι *splag-chniz-omai*) means to have sympathy for the suffering or hurting of others. It also includes having a desire to help. This is found in the teaching of kingdom living, both Old Testament and New Testament. Therefore, the despised Samaritan or muggle for some of you does what no one else would, even those who knew better. He goes over to the man, disinfects his wounds with wine, soothes them with olive oil, and bandages them.”[16]

## **Concluding remarks**

As a further step from what we have outlined in a preceding paper, we consider the following: that human consciousness model should take into consideration “spirit” role, i.e. the mind-body-spirit as integral aspect, which view is neglected in the so-called Freudian mental model.

In this paper, we consider two approaches to cancer treatment derived from such an integral triune view of human consciousness, including (a) healing frequency approach as advised by Royal Rife and David Hawkins, and also (b) relational therapy, based on recent research on the healing role of compassion and love.

While we are aware that the ideas presented here may be not complete yet, but we are convinced that these ideas of authentic relationship, caring and compassion are supported by solid body of evidence. And they may hold the key to autoimmunity of human body. Again, love and self are inseparable.

To summarize key ideas in this paper, instead of repeating the Cartesian old adage: *cogito ergo sum* (I think therefore I am), probably it is much better to consider a new phrase: *I love therefore I am* (we are not sure about Latin version, may be something like this: “*Amo cogito ergo sum.*”)

## **Acknowledgement**

The first author (VC) would like to express his gratitude to Jesus Christ who always encouraged and empowered him in many occasions. He is the *Good Shepherd*. Discussion with Robert Neil Boyd is also appreciated. *Soli Deo Gloria!*

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VC & FS



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# A few surprises about Non-Locality Interactions, Precognitive Interdiction, and the Spirit from Physics Viewpoint

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## ABSTRACT

There are various supernatural phenomena which hardly can be explained by the existing electromagnetic science, for instance non-locality interactions (may be associated with ESP etc), and also precognitive interdictions. And there are other problems such as how to include the Spirit in our consciousness. For example, it has been known for long time that intuition plays significant role in many professions and human life, including in entrepreneurship, government, and also in detective or law enforcement activities. Despite these examples, such a precognitive interdiction is hardly accepted in established science. In this paper, we discuss non-locality interactions and also advanced solutions of Maxwell equations, and argue in favor of precognitive interdiction from classical perspective. We also discuss shortly on how “spirit” may be included in medicine, although we also make cautious remarks on the danger of “*spiritism*.” However, we admit that what we discuss here is quite rough, and more researches are needed to verify what we describe here.

Keywords: non-locality interaction, intuition, precognition, Maxwell equations, advanced wave solution, spirit and spiritism.

## 1. Introduction

There are various supernatural phenomena which hardly can be explained by the existing electromagnetic science, for instance non-locality interactions (may be associated with ESP etc), and also precognitive interdictions. And there are other problems such as how to include the Spirit in our consciousness.

For example, it has been known for long time that intuition plays significant role in many professions and other aspects of human life, including in entrepreneurship, government, and also in detective or law enforcement activities. Even women are known to possess better intuitive feelings or “*hunch*” compared to men. Despite these examples, such a precognitive interdiction is hardly accepted in established science.

In this paper, we discuss non-locality interactions in electromagnetic theory, and also the advanced solutions of Maxwell equations in the context of Wheeler-Feynman-Cramer’s absorber theory, and then make connection between syntropy and precognition from classical perspective. This may be regarded as first step to describe such precognition activities which are usually considered belong to quantum realm.

In the last section, we will discuss on how to include spirit in medicine, although we shall also make cautious remark on “*spiritism*.”

It is our hope that what we discuss here can be verified with experimental data.

## **2. Electromagnetic origin of non-locality interactions**

There is a widely-held belief among physicists that non-locality interactions can only be explained as an effect of Quantum Mechanics. But what is surprising to reveal here is that non-locality interactions can be explained from pure classical electromagnetic theory.

A recent paper by Butler and Gresnigt tried to elucidate this issue. Their abstract goes as follows:

“A fields-only formulation of EM interactions that does not invoke charge explicitly is presented. The EM interaction ceases to be the result of an asymmetric action of a field on a point charge locally, but instead is the result of applying Hamilton’s principle of virtual work to the symmetric but non-local interaction of space-filling EM fields themselves. The fields themselves are therefore the only fundamental entities.”[8]

In section 4 of their paper, they argued:

“The pure-field force law presented here is both Lorentz invariant and symmetrical with respect to all sources. However, it is not local. The fields are the mediators of force, but not through the interaction of the fields with the test charge at a single point in space, but rather through the dispersed interaction of the fields from all charges throughout all space. The approach taken here has traded locality for symmetry.... Although the derivation of the previous section is classical, the dispersed interaction is reminiscent of the interaction of QM states.”[8]

Therefore, from theoretical viewpoint, non-locality interactions can be explained from classical electromagnetic theory itself, especially when we consider knotted solutions of Maxwell equations. Butler and Gresnigt also remarked:

“Likewise, the motion resulting from EM interaction of a multiple particle system is the result of each particle’s EM field’s contribution to the quadratic energy density ... This overlapping structure between EM and QM has also been highlighted by van der Mark who showed that the QM probability current arises as the EM 4-current from topological EM fields.” [8]

### 3. John Cramer’s take on Wheeler-Feynman’s absorber theory

The Wheeler-Feynman’s paper on absorber theory has been discussed and generalized by John Cramer. He discussed among other things on the physical interpretation of advanced and retarded solutions of Maxwell equations and also Klein-Gordon equation.

Our discussion starts from the fundamental Maxwell’s equations that unify electromagnetism[1]:

$$\begin{aligned}
 \nabla \cdot B &= 0(\text{Magnetic Gauss}), \\
 \nabla \cdot D &= \rho_f(\text{Gauss}), \\
 \nabla \times E + \partial_t B &= 0(\text{Faraday}), \\
 \nabla \times H - \partial_t D &= J_f(\text{Ampere circuit law}),
 \end{aligned}
 \tag{1}$$

It is known that electromagnetic wave equation corresponding to (1) admits advanced wave solution.

Of course, here we do not have to accept all transactional QM interpretation by Cramer [1][2], but we can keep our discussion straightly within the scope of classical electromagnetic theory.

The electromagnetic wave equation for source-free space can be written in the form:

$$c^2 \nabla^2 \vec{F} = \frac{d^2 \vec{F}}{dt^2}, \quad (2)$$

where  $c$  represents the speed of light, and  $F$  represents either the electric field vector  $E$  or the magnetic field vector  $B$  of the wave.[1]

Since this differential equation is second order in both time and space, it has two independent time solutions and two independent space solutions. Let us restrict our consideration to one dimension by requiring that the wave motion described by equation (2) moves along with  $x$  axis and that the  $E$  vector of the wave is along the  $y$  axis.

Then two independent time solutions of equation (2) might have the form [1]:

$$\vec{E}_{\pm}(x, t) = \hat{y} E_0 \sin \left[ 2\pi \left( \frac{x}{\lambda} \pm ft \right) \right], \quad (3)$$

and

$$\vec{B}_{\pm}(x, t) = \hat{y} B_0 \sin \left[ 2\pi \left( \frac{x}{\lambda} \pm ft \right) \right], \quad (4)$$

Quoting from Cramer's notes on the solutions of equations (3) and (4):[1]

**Thus, wave  $E_+(x, t)$  is a *negative-energy* (and *negative-frequency*) solution of Eq. (1). As mentioned above, it will arrive at a point a distance  $x$  from the source at a time  $t = x/c$ . *before* the instant of emission. For this reason, it is called an *advanced* wave. Solution  $E_-(x, t)$ , on the other hand, is the more familiar *positive-energy* solution of Eq. (1). It arrives at  $x$  a time  $t = x/c$  after the instant of emission and is called the *retarded* solution.**

It should be clear, therefore, that advanced wave solution is inherent in the classical electromagnetic wave equations, without having to resort to Cramer's transactional interpretation of QM.

Next, we are going to discuss physical interpretation of such an advanced wave solution.

#### **4. Interpretation of Advanced Wave Solution: Precognitive Interdiction**

The above analysis by Cramer which seems to suggest that EPR paradox just disappears when considering the advanced waves to be real physical entities, has been suggested by other physicists too, notably: Costa de Beauregard and also Luigi Fantappie. While working on quantum mechanics and special relativity equations, Luigi noted that that retarded waves (retarded potentials) are governed by the law of entropy, while the advanced waves are governed by a symmetrical law that he named “*syntropy*.”[3]

Therefore, some psychologists who work in this area began to make connection between the notion of syntropy and precognitive interdiction. And recently, a new journal by title *Syntropy* has been started to facilitate such a discussion.

But again let us emphasize here that equation (3) and (4) indicate that the advanced wave solutions have purely classical origin. Therefore, we do not discuss yet their connection with other alleged QM phenomena such as collapsing wave function which is hardly possible to prove experimentally, despite Bohr and Heisenberg insisted such a phenomenon is real. This is our departure to QM’s inspired syntropy discussions in [3]-[6].

Our knowledge in this area is very limited, but we can expect that research in this direction of precognitive interdiction will flourish in the near future, once we can accept that it is purely classical origin, so we do not have to invoke complicated QM arguments.

## 5. A deep problem with Western medicine and a post-colonial reading of Gen. 2:7

There are several scientific authors who describe fundamental problems with modern (Western) medicine. The fundamental problem is commonly expressed with a *mechanistic* worldview as well as a Cartesian dualism philosophy.[9]

Sheldrake revealed that such a mechanistic view is actually derived from Neo-Platonic philosophy, so it is not based on biblical teaching.

A similar argument was developed by Fritjof Capra in his famous book, *The Turning Point*.<sup>[11]</sup> Similarly, Christian philosopher Alvin Plantinga has written a paper criticizing *materialism*.<sup>[14]</sup>

Unfortunately, however, the thinking of scientists from such disciplines often fails in the midst of massive dis-information (and advertising) that modern (Western) medicine has managed to address almost all human health problems. Is that true?

Let's take a look at the colonial post-reading of Gen. 2: 7 and some other texts.

If we read closely Gen. 2: 7, we see at a glance that man is made up of the dust of the ground (*adamah*) which is breathed by the breath of life by God (*nephesh*). Here we can ask, does this text really support the Cartesian dualism view?

We do not think so, because the Hebrew concept of man and life is integral. The bottom line: it is not the spirit trapped in the body (Platonic), but the body is flowing in the ocean of spirit.<sup>[10]</sup>

This means that we must think of as an open possibility for developing an integral treatment approach (Ken Wilber), or perhaps more properly called "**spirit-filled medicine**."<sup>[12]</sup>

Let's look at three more texts:

a. Gen. 1: 2, "The earth is without form and void, darkness over the deep, and the Spirit of God hovering over the waters." Patterns such as Adam's creation can also be encountered in the creation story of the universe. Earth and the oceans already exist (similar to adamah), but still empty and formless. Then the Spirit of God hovered over it, in the original text "*ruach*" can be interpreted as a strong wind (storm). So we can imagine there is wind/hurricane, then in the storm that God said, and there was the creation of the universe. From a scientific point of view, it is well known in aerodynamics that turbulence can cause sound (turbulence-generated sound). And primordial sound waves are indeed observed by astronomers.

b. Ps. 107: 25, "He said, he raised up a storm that lifted up his waves." The relation between the word (sound) and the storm (turbulence) is interactive. Which one can cause other. That is, God can speak and then storms, or the Spirit of God causes a storm. Then came the voice.

c. Ezekiel. 37: 7, "Then I prophesy as I am commanded, and as soon as I prophesy, it sounds, indeed, a crackling sound, and the bones meet with one another." In Ezekiel it appears that the story of the creation of Adam is repeated, that the Spirit of God is blowing (storm), then the sound of the dead bones arises.

The conclusion of the three verses above seems to be that man is made up of adamah which is animated by the breath or Spirit of God. He is not matter, more accurately referred to as spirit in matter. Like a popular song around 80s goes: "*We are spirits in the material world.*" See also Amos Yong [10]. Therefore, it is inappropriate to develop only materialistic or Cartesian dualism treatment. We can develop a more integral new approach.[9]



The integral view of humanity and spirituality, instead of two-tiered Western view of the world, appears to be more in line with majority of people in underdeveloping countries, especially in Asia and Africa. See for instance the work by Paul Hiebert [16][17].

Among the studies supporting such an integral approach is the view that cells are waves, see the paper from Prof. Luc Montagnier.[15][15a][18]

And also our paper on the wave nature of matter, as well as the possibility of developing a wave-based (cancer) treatment. See our papers on this topic.[19][20]

## **6. A few cautious remarks on the danger of spiritism**

While we argue in favor of returning the “spirit” into modern science, we also wish to make a few cautious remarks on the danger of “spiritism.”

But first of all, allow us to quote an interesting discussion on the problem of modern theology discourse:

“Theologia as a term which means 'reasoned discourse about God' or 'the doctrine of God' was probably invented by Plato and has been adopted into Christianity for the systematic study and presentation of topics relating to God. But in its wider connotations 'theology' is the systematic and scientific study of religion generally... It has been fashionable of late for influential theologians like R. Bultmann and R. H. Fuller to disavow the existence and influence of the evil spirits spoken of in the New Testament. This is supposedly *because of their modern 'scientific' or positivistic outlook, which asserts that only that which is scientifically verifiable by any of the five senses may be said to exist*. Evil spirits do not belong to this category, therefore they do not exist. “[23]

So, we hope the readers begin to realize where the problem began: it started from positive philosophy influence to theology fields, which ultimately result in reluctance or skepticism to accept the reality of evil spirits. But in the post-modern era, such a reality of evil spirit has been accepted again along with critics by missiology experts like Paul

Hiebert, who called such a Cartesian reductionistic mind-body dualism: “*the excluded middle*.”[16][17]

However, we shall also admit that “spiritism” is widely practiced in many regions in Africa, Latin America, and also Asia.<sup>51</sup> While Christian believers should understand that reality, it does not mean they can invite those spiritism practices into their Christian life, otherwise there may be conflicts between their Christian faith and various forms of spiritism rituals. Nonetheless, Christian believers are called to encounter with those evil spirits when the situation calls them to do so.

Apart from theologian viewpoint, there were extensive experiments on physical mediumism, spiritism etc by scientists in attempt to put this kind of research within domain of psychology and psychiatrists. For instance, researches in this area have been pioneered in Italy by Enrico Morselli, Tamburini *et al.*[24]

## **7. Concluding Remarks**

There are various supernatural phenomena which hardly can be explained by the existing electromagnetic science, for instance non-locality interactions (which may be associated with ESP phenomena etc), and also precognitive interdictions. And there are other problems such as how to include the Spirit in our consciousness. See our recent papers where we discuss such a possibility of new consciousness model which include the “spirit.”[25][26]

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<sup>51</sup> For an introduction to spiritism and other diabolical sects in Latin America etc, interested readers are advised to see Umberto Eco, *Foucault's Pendulum*. url: [http://www.postmodernmystery.com/foucaults\\_pendulum.html](http://www.postmodernmystery.com/foucaults_pendulum.html)

It has been known for long time that intuition plays significant role in many professions and various aspects of human life, including in entrepreneurship, government, and also in detective or law enforcement activities. Even women are known to possess better intuitive feelings or “hunch” compared to men.

Despite these examples, such a precognitive interdiction (hunch) is hardly accepted in established science. In this paper, we discuss briefly the advanced solutions of Maxwell equations, and then make connection between syntropy and precognition from classical perspective. This may be regarded as first step to describe such precognition activities which are usually considered belong to quantum realm.

Further observations and experiments are recommended to verify the above propositions.

### **Acknowledgement**

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Section 4: Hermeneutics of Early Christianity History, towards  
Dialogue in Diversity

CHURCH LANGUAGE THEOLOGY  
TRUTH INTERPRETATION MEANING  
PERCEPTION **HERMENEUTICS** DISCERNMENT  
LIFEWORLD UNDERSTANDING COMMUNITY  
BIBLE NARRATIVE TRADITION

# **Between Baur and Tübingen School: towards hermeneutics of dialogue**

Victor Christianto

Following our old time plan to write a brief review of the Tuebingen School, here is the article.

## Tuebingen Alumni

If you have studied theology, you must have studied or at least heard the names of the Tuebingen Theology Faculty graduates, which is said to be one of the best theology faculty in Germany, including: Karl Barth, Ferdinand Baur, Jurgen Moltmann, Dietrich Bonhoeffer, Paul Tillich, Strauss and Miroslaf Volf. See Attachment. (1)

Although it is often regarded as the basic foundation of modern theology, Friedrich Schleiermacher (Halle University and Berlin University), but names such as Barth and Baur are very coloring theological studies. We are not close enough to know Schleiermacher and Barth's thinking, but there was once a kind of conflict between the two. (2) One carries an anthropocentric approach while Barth is known as the pioneer of neo-orthodoxy. In addition to the Tuebingen graduate theologians there are also many well-known scientists from Tuebingen University, say for example: Johannes Kepler and Arthur Geiger, inventors of the Geiger counter.

## Tuebingen School

One of us read various texts which discussed Ferdinand Baur, who was the originator of the Tuebingen School. The basic assumption of Baur is the history of the early church following Hegel's dialectical theory of history. (3) And Hegel was also one of the alumni of Tuebingen. For example, Baur wrote that there is a conflict between Jewish Christianity as Paul's thesis and Christianity as an antithesis, which then becomes the Christian model of the Johanan community

(reflected in the Gospel of John) as a synthesis (following Hegel's thesis-antithesis synthesis). (3) After decades of successfully leading PB theological thinking in his time, finally this School was abandoned after a book from von Harnack was published. (4)

Let us give a summary of the 5 striking weaknesses of the Tuebingen School:

a. Pseudo-Clementine. Baur seems to base his theory on contradictions in the early church from the dispute between Simon Magus and Peter referred to in the Pseudo Clementine text. (5) But this manuscript from the 4th century and non-canonical, so it is not feasible to build the early Church history theory. Moreover, this manuscript is allegedly indeed anti-Pauline (similar to the Ebionite School). The findings of the latest findings such as the Dead Sea script also left the Baur hypothesis abandoned.

b. The historicity of the gospel of John. The idea that the Gospel of John is a synthesis becomes raw, when the latest findings indicate that the 4th Gospel was allegedly from a period not far away or might precede the Synoptic Gospels. To study the historicity of the Gospel of John, see the work of CH Dodd. (6)

c. Unity in difference. (7) That there is indeed difference of opinion between various factions in the early church, it must be recognized (see Acts 15 and Galatians). But there is also unity and mutual respect among the pioneers in the early church, as seen in the following 3 verses:

Acts 21:18

The next day Paul went with us to visit James; all the elders were there.

Galatians 2: 9 When he saw the grace that was given to me, James, Cephas, and John, who were seen as pillars of the church, shook hands with me and with Barnabas as a sign of fellowship, so that we would go to the uncircumcised and to them circumcised people;

1 Corinthians 3: 6

I planted, Apollos watered, but God gave growth.

d. That difference does not appear in the literature of the church fathers.

If there was a conflict between Peter and Paul or between Paul and James, it would certainly be traceable in the literature of the father of the church, namely the disciples of the apostles. Then why could Baur make such a fatal mistake?

There are at least two causes:

- Baur comes from a foreign Protestant environment with a patristic study, so he only relies on Pseudo Clementine.
- Baur too believes in Hegel's historical dialectical hypothesis.

e. Meetings can be dialogues. As confirmed by Prof. Milad Hanna from the Coptic Church, encounters with The Other (others) do not have to produce conflict, but more likely dialogue that enlightens each other. That is why Martin Buber, the pioneer of the dialogical approach, also disagrees with Marx (and Freud).

Closing

It seems to be clear, that Hegel's ideas about the dialectics of history cannot be maintained. Especially the notion of dialectical materialism as in Marx (Marx also departed from Hegel).

In other words, we should move from hermeneutics of conflict (a la Hegel and Baur) towards hermeneutics of dialogue, as will be explored in a next article. (From logical perspective, dialogue can be viewed as accepting the otherness, just like Smarandache's Neutrosophic Logic.)

Although this article criticizes the Tuebingen School, it does not mean that there is nothing the writers admired among the famous Tuebingen graduates.

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# **From hermeneutic of conflict to hermeneutic of dialogue: Rediscovering the love language**

Victor Christianto

## Foreword

For a few years, one of us had a copy of Samuel Huntington's controversial book for a long time: the clash of civilizations. But for some reason he never took the time to read the book thoroughly, besides just glimpsing the initial version published in Foreign Affairs. Finally, one time he gave the book to a friend.

What is dialogue hermeneutics?

But recently there was an article that quoted an intellectual from the Coptic church, namely Prof. Milad Hanna, who disagreed with the mindset transmitted both by Marx and Huntington. If we can look for similarities between the two thinkers, they are developing at the same time "hermeneutics of suspicion" and "hermeneutics of conflict". Both are called inter-class conflicts or between civilization.

In fact, as argued by Prof. Milad Hanna, whenever people meet the Other, it is always possible to dialogue towards mutual understanding and accepting each other as one another. In our opinion, this is in line with the thoughts of Martin Buber, the existentialist philosopher and the pioneer of the dialogical approach, who also disagrees with the views of Freud and Marx.

A little note about the foundation of Biblical

If you want to find the Biblical foundation of the 'hermeneutics of dialogue' instead of hermeneutics of conflict, perhaps one of the best places is Acts and the Epistles. However, Jesus's example of open dialogue with Rabbi Nicodemus and the Samaritan woman at the edge of Jacob's well, would open our horizons

that in addition to the choice of "unity in differences" and "conflict in differences", there is also a third choice: "dialogue in difference" (of course the dialogue is interpreted in explained Martin Buber's I-Thou).

That there were indeed differences of opinion between various factions in the early church, it must be recognized (see Acts 15 and Galatians). But there was also unity and mutual respect among the pioneers in the early church, as seen in the following 3 verses:

Acts 21:18

The next day Paul went with us to visit James; all the elders were there.

Galatians 2: 9 When he saw the grace that was given to me, James, Cephas, and John, who were seen as pillars of the church, shook hands with me and with Barnabas as a sign of fellowship, so that we would go to the uncircumcised and to them circumcised people;

1 Corinthians 3: 6

I planted, Apollos watered, but God gave growth.

From the hermeneutics of dialogue to the hermeneutics of love.

If we can move forward from the hermeneutics of conflict to a hermeneutic of dialogue, then one more step we will find the hermeneutics of love.

Is that hermeneutics of love? In simple terms, hermeneutics is the Glasses that we use to see and understand everything that is in our experience space. As it is written:

Luke 11:34

Your eyes are the lamp of your body. If your eyes are good, your whole body will be clear, but if your eyes are evil, your body will be darkened.

Such is the person who has applied the hermeneutics of love, maybe the work is still mopping the floor or raising ducks or cutting bamboo. But he will mop joyfully, and keep ducks with thanksgiving, or turn bamboo into flutes that sound melodious. There is a story that we really like from Anthony de Mello,

as follows : there is a Zen student in the hermitage who protested to his teacher: "Teacher, why have you never taught me special things or knowledge? You must have hidden something, right?" After being repeatedly pressured, the teacher simply answered: "Do you hear the sound of birds singing on the tree?" Answer the student: "Yes". Then the teacher replied: "See, I am not hiding anything."

Likewise what we hear from the teaching of Jesus the Nazarene:

Matthew 6:26

Look at the birds in the sky, who do not sow and do not reap and do not gather provisions in barn, but fed by your Father in heaven. Did you not exceed the birds?

Questions to ponder:

- can you feel the whisper of God's love flowing in your pulse?
- can you hear God's voice in the breeze?

1 Kings 19:12

And after the earthquake a fire came. But there is no LORD in the fire. And after the fire came the sound of a gentle breeze.

Concluding remark: Rediscovering the language of love.

It should be clear that "meeting can open up a dialogue space." As confirmed by Prof. Milad Hanna from the Coptic church, encounters with The Other (others) do not have to produce conflict, but more likely dialogue that enlightens each other. (3) That is why Martin Buber, the pioneer of the dialogical approach, also disagrees with Marx (and Freud). (2)

In other words, we should move from hermeneutics of conflict (a la Hegel and Baur) towards hermeneutics of dialogue, as will be explored in a next article. (From logical perspective, dialogue can be viewed as accepting the otherness, just like Smarandache's Neutrosophic Logic.)

Because hermeneutics is not only about understanding, but also about explanation (1), then as good glasses help us to see more clearly, hermeneutics is good at directing the language we emit from the heart. Because what comes out of the mouth comes from the heart.

Matthew 5:22

But I say to you, "Everyone who is angry with his brother must be punished; whoever says to his brother, 'Unbelievers'; must be brought before the Sanhedrin and who says: Impossible must be delivered to a fiery hell.

And if our hearts have been enlightened by the hermeneutical love, whatever we do and say will always be colored with the language of love.

Let us close this paper with the peace prayer of St. Francis of Assisi: (5)

Lord, make me a peacemaker,  
Where there is hatred, let me sow love;  
where there is injury, pardon;  
where there is doubt, faith;  
where there is despair, hope;  
where there is darkness, light;  
where there is sadness, joy;

O Divine Master, grant that I may not so much seek to be consoled as to console;  
to be understood as to understand;  
to be loved as to love.

For it is in giving that we receive;  
it is in pardoning that we are pardoned;  
and it is in dying that we are born to eternal life.

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Section 5:  
Introduction to Neutrosophic Hermeneutics

# **From Hermeneutics of Neutrality to Neutrosophic Hermeneutics**

V. Christianto & F. Smarandache

In previous sections, we have discussed a number of new terms in modern hermeneutics, including hermeneutics of suspicion etc.

Now we will discuss Hermeneutics of Opposites and Neutrality, or perhaps it would be better to put it as: Neutrosophic Hermeneutics.

Definition:

According to Merriam-Webster Dictionary, Hermeneutics means:

- 1) hermeneutics (plural in form but singular or plural in construction) is the study of the methodological principles of interpretation (as of the Bible);
- 2) a method or principle of interpretation a philosophical hermeneutic ( <https://www.merriam-webster.com/dictionary/hermeneutics> ).

Therefore, Hermeneutics is the branch of knowledge that deals with methodical interpretation of an item <A> (that may be: a religious text, a theory, an idea, and so on).

Neutrosophic Hermeneutics, as part of Hermeneutics, deals with methodological principles of interpretation of an item <A> in relation with to its opposites (<antiA>) and its neutrals (<neutA>).

Neutrosophic Hermeneutics is, of course, part of Neutrosophy.

Neutrosophic Hermeneutics employees three principles: firstly an interpretation of <A> from within (from a friendship/positive point of view), secondly an interpretation of <A> from enemy/negative point of view, and thirdly an interpretation from neutral/ignorant point of view.

In a more general way, using the Refined Neutrosophy

{ where the triad (<A>, <neutA>, <antiA>) is refined into  $n$  subparts:



$(\langle A_1 \rangle, \langle A_2 \rangle, \dots, \langle A_p \rangle; \langle neutA_1 \rangle, \langle neutA_2 \rangle, \dots, \langle neutA_r \rangle; \langle antiA_1 \rangle, \langle antiA_2 \rangle, \dots, \langle antiA_s \rangle;$  where  $p, r, s \geq 1$  are integers, and  $n \geq 4$ ),

Refined Neutrosophic Hermeneutics employs  $n$  sub-principles of interpretations of  $\langle A \rangle$  from all possible angles ( $360^\circ$  around of interpretations): from *within* (positively), from *anti-without* (negatively), and from *neutro-without* (neutrally).

Example:

We consider it possible that one can get a mixture between two or three of hermeneutic spectrum that we consider in the first chapter. For instance, if we consider: hermeneutics of faith, and hermeneutics of respect, and hermeneutics of neutrality, one can realize that a new type of Neutrosophic Hermeneutics: Hermeneutics of Trustworthiness, i.e. when one can simultaneously consider the source (Bible, for instance) as trustworthy, but he/she keeps neutral of possible interpretations other than his/her.

One can consider other types of mixture of hermeneutics.

Hopefully this proposition will find plentitude of applications in hermeneutics of literature/ Bible/ science.

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# Appendix:

Activities in Hermeneutics Class, 25 February – 1 March 2019

## The Historical Principle

- Specific cultural events, people or situations that are assumed in the text
- Added insight into the historical significance helps us understand text
- Eg, inheritance rights in OT; understanding religious groups (Pharisees; Sadducees; Zealots) in NT

































