

Exploration

Non-locality, Precognition & Spirit from the Physics Point of View

Victor Christianto^{*1} & Florentin Smarandache²

¹Malang Institute of Agriculture, Malang, Indonesia

²Dept. Math. & Sci., Univ. of New Mexico, Gallup, USA

Abstract

There are various supernatural phenomena which can hardly be explained by the existing mainstream science, for instance non-local interactions (e.g. ESP) and also precognitive interdictions. And there are other problems such as how to include the Spirit in the framework of physics. For example, it has been known for long time that intuition plays significant role in many professions and human life, including entrepreneurship, government, and also in detective or law enforcement activities. Despite these examples, such a precognitive interdiction is hardly accepted in mainstream science. In this paper, we discuss non-local interactions and advanced solutions of Maxwell equations, and argue in favor of precognitive interdiction from classical physics perspective. We also briefly discuss how “spirit” may be included in medicine, although we also warn against the danger of “*spiritism*.”

Keywords: Non-locality, intuition, precognition, Maxwell equations, advanced wave solution, spirit.

1. Introduction

There are various supernatural phenomena which hardly can be explained by the mainstream science, for instance non-local interactions (e.g., ESP) 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 classical 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

*Correspondence: Victor Christianto, Independent Researcher. Email: victorchristianto@gmail.com

perspective. This may be regarded as a 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 warn against “*spiritism*.” It is our hope that what we discuss here can be verified with experimental data.

2. Electromagnetic origin of non-local interactions

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

A recent paper by Butler and Gresnigt tried to elucidate this issue:

“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]

....

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-local 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:

$$c^2 \nabla^2 \vec{F} = \frac{d^2 \vec{F}}{dt^2},\tag{2}$$

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]:

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

and

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

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 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 [1a]. While working on quantum mechanics and special relativity equations, Fantappie 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.¹

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 that 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.

¹ url: <http://www.syntropy.org/journal-english>

5. Problem with Western medicine & a post-colonial reading of Gen. 2:7

Realizing that there are many things we still do not know and many stones remain to be lifted, now allow us to discuss shortly on deep problems with the so-called Western Medicine.

There are several scientific authors who describe fundamental problems with modern (Western) medicine. The fundamental problem is commonly expressed with a *mechanistic* worldview or 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.[9][13]

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

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*) then it was made to live 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 that is trapped in the body (Platonic), but the body is flowing in the ocean of spirit. [10]

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

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.*" In Hebrew:² וְהָאָרֶץ, הִיְתָה תְהוֹ; וְרוּחַ אֱלֹהִים, מְרַחֶפֶת עַל-פְּנֵי הַמַּיִם.

Patterns such as Adam's creation can also be encountered in the creation story of the universe. Earth and the oceans already existed (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 was strong

² <https://www.mechon-mamre.org/p/pt/pt0101.htm>

wind/hurricane, then in the storm God said, and there was the beginning of creation process 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.³

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 should develop a more integral approach, based on integral view of anthropology.[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 recent studies supporting such an integral approach is the view that *cells are waves*, see the paper from Prof. Luc Montagnier.[15][15a][18] Interested readers may also see 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 and medicine, 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

³ Our idea of creation process from great turbulence has been reported in this journal over the last several years, see for instance: V. Christianto & F. Smarandache, Thinking Out Loud on Primeval Atom, Big Bang & Biblical Creation, *SciGod J.* vol. 1 no. 9 (2018), url: <http://scigod.com/index.php/sgj/article/view/603>

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 flaw of excluded middle.*”[16][17]

However, we heard that “spiritism” is still widely practiced in many regions in Africa, Latin America, and also Asia.⁴ While Christian believers in those regions should understand that reality (may be an old practice inherited from their ancestors), 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 (occultism). Nonetheless, Christian believers are called to encounter with those evil spirits when the situation calls them to do so.

Apart from such a 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. Conclusion

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 into our consciousness. See our recent papers where we discuss such a possibility of new consciousness model beyond Freudian mental model, which includes the “spirit.”[25-26]

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

⁴ For an introduction to spiritism and other diabolical sects in Latin America etc., see for instance: Umberto Eco, *Foucault's Pendulum*. url: http://www.postmodernmystery.com/foucaults_pendulum.html

“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 physics perspective. This may be regarded as a 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: Discussions with Dr. Robert N. Boyd are noted and appreciated. One of us (VC) would extend his deepest gratitude to Jesus Christ and Holy Spirit who always guide him in all valleys of darkness. Jesus Christ is the *Good Shepherd*.

References

- [1] John G. Cramer. Generalized Absorber Theory and the Einstein-Podolsky-Rosen paradox. *Phys. Rev. D*, Vol. 22 no. 2 (1980); [1a] see also Fantappiè L. (1942), *Teoria Unitaria del Mondo Fisico e Biologico*, Di Renzo Editore, Roma, 1991.
- [2] John G. Cramer. The transactional interpretation of Quantum Mechanics and Quantum Nonlocality. arXiv: 1503.00039 (2015). Official URL: <http://faculty.washington.edu/jcramer/>
- [3] Antonella Vannini. Url: <http://www.hessdalen.org/sse/program/Antonella.pdf>
- [4] Antonella Vannini & Ulisse Di Corpo. *J. of Cosmology*. Url: http://www.alice.id.tue.nl/references/vannini-di_corpo-2011.pdf
- [5] Ulisse Di Corpo and Antonella Vannini. *Syntropy* 2010. Url: <http://www.lifeenergyscience.it/english/2010-eng-1-2.pdf>
- [6] Ulisse Di Corpo and Antonella Vannini. *Syntropy* 2010. Url: <http://www.lifeenergyscience.it/english/2010-eng-1-4.pdf>
- [7] Ty E. Narada. Precognitive interdiction. Url: <http://www.cyonic-nemeton.com/investigations.html>
- [8] Philip H. Butler & Niels G. Gresnigt (2016): Symmetric but non-local purefield expression of EM interactions, *Journal of Electromagnetic Waves and Applications*, DOI: 10.1080/09205071.2016.1210543
- [9] Rupert Sheldrake. *The science delusion*. Ebook version. Url: <http://www.alice.id.tue.nl/references/Interview%20with%20Rupert%20Sheldrake.pdf>
- [10] Amos Yong. *The Spirit in Creation*. Cambridge: Wm. B. Eerdmans Publ. co, 2011
- [11] Fritjof Capra. *The Turning Point*. Url: [https://en.wikipedia.org/wiki/The_Turning_Point_\(book\)](https://en.wikipedia.org/wiki/The_Turning_Point_(book))
- [12] in the vale of soul-making. Url: <http://themathestrust.org/papers/modernity/sheldrake-vale.pdf>
- [13] Rupert Sheldrake. Setting science free from materialism. Url: <http://www.wakingtimes.com/2013/10/25/setting-science-free-materialism/>
- [14] Alvin Plantinga. Against materialism. Url: http://www.andrewmbailey.com/ap/Against_Materialism.pdf
- [15] Luc Montagnier et al. <http://iopscience.iop.org/article/10.1088/1742-6596/306/1/012007/meta>; [15a] Luc Montagnier. DNA between physics and biology. url: <http://omeopatia.org/upload/Image/convegno/VALERI-24-10-2011Relazione3.pdf>
- [16] Paul Hiebert. The Flaw of Excluded Middle. *Journal of Missiology*, 1982.
- [17] Paul Hiebert. Transforming Worldviews. Mission Focus, Annual Review, 2002

- [18] http://21sci-tech.com/Articles_2011/Winter-2010/Montagnier.pdf
- [19] Victor Christianto & Yunita Umniyati. A non-particle view of DNA and implications to cancer therapy. Url: http://www.academia.edu/29253942/A_Non-Particle_View_of_DNA_and_Its_Implication_to_Cancer_Therapy
- [20] Victor Christianto & Yunita Umniyati. A few comments of Montagnier and Gariaev's works. *DNA Decipher Journal*. Url: <http://dnadecipher.com/index.php/ddj/article/download/102/112>
- [21] Gabor Klaniczay & Eva Pocs. *Communicating with the Spirits*. Budapest: Central European University Press, 2005
- [22] Allan Kardec. Genesis: the miracles and the predictions according to spiritism. http://www.ipeak.net/site/upload/midia/pdf/genesis_the_miracles_and_the_predictions_according_to_spiritism_-_trad._w._j._colville.pdf
- [23] ANDREW OLU IGENOZA. CHRISTIAN THEOLOGY AND THE BELIEF IN EVIL SPIRITS: AN AFRICAN PERSPECTIVE. url: https://biblicalstudies.org.uk/pdf/sbet/04-1_039.pdf
- [24] Maria Teresa Brancaccio. Enrico Morselli's Psychology and Spiritism. *Studies in History and Philosophy of Biological and Biomedical Sciences* 48 (2014) 75e84
- [25] V. Christianto & F. Smarandache. The world within us (Or: A Sketch of Consciousness Space Beyond Freudian Mental Model and Implications to Socio-Economics Modeling and Integrative Cancer Therapy) *BAOJ Cancer Res Ther* 4: 057. url: <https://bioaccent.org/cancer-sciences/cancer-sciences57.php>
- [26] Florentin Smarandache, *Neutropsychic Personality*, Pons asbl, Belgium, first edition 118 pages, 2018; second enlarged edition, 131 p., 2018.