

# **On Three possible applications of Neutrosophic Logic in Applied Sciences, including matter creation**

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## *Abstract*

In the same spirit with the theme of last issue of this SGJ journal (“Ongoing creation”), this paper shortly reviews a plausible mechanism from Aether to become ordinary matter from the perspective of Neutrosophic Logic. We also discuss two other possible applications of Neutrosophic Logic, including a resolution of conflicting paradigms in medicine. We hope that some ideas as outlined herein will be proved useful in the near future.

## **Introduction**

Matter creation process in Nature remains a big mystery for physicists, biologists and other science researchers. To this problem Neutrosophic Logic offers a solution, along solutions to two other problems, namely the point particle assumption in Quantum Electrodynamics and also in resolving the old paradigm conflict between Western approach to medicine and Eastern approach.

## **Matter creation processes**

Matter creation process in Nature remains a big mystery for physicists, biologists and other science researchers. To this problem Neutrosophic Logic offers a solution.

As to why do we need aether, the mainstream physicists would answer: no, it is not needed, especially after Special Relativity theory. Nonetheless, they are actually resulting in the same empirical results [9].

But on deeper level, it is needed because otherwise there is no way to explain interaction at a distance in a vacuum space. We need medium of interaction, of which has been called by various names, such as: quantum vacuum, zero point field, etc.

Although we can start with an assumption of aether medium is composed of particle-antiparticle pairs, which can be considered as a model based on Dirac's new aether by considering vacuum fluctuation (see Sinha, Sivaram, Sudharsan.) [5][6] Nonetheless, we would prefer to do a simpler assumption as follows:

Let us assume that under certain conditions that aether can transform using Bose condensation process to become "*unmatter*", a transition phase of material, which then it sublimates into matter (solid, gas, liquid). Unmatter can also be considered as "pre-physical matter."

Summarizing our idea, it is depicted in the following block diagram:

Aether → bose condensation → "*unmatter*" (pre-physical matter) → sublimation → ordinary matter/particle

Diagram 1. How aether becomes ordinary matter

Actually the term "*unmatter*" can be viewed as a solution from perspective of Neutrosophic Logic. A bit of history of *unmatter* term may be useful here:

"The word 'Unmatter' was coined by one of us (F. Smarandache) and published in 2004 in three papers on the subject. Unmatter is formed by combinations of matter and antimatter that bound together, or by long-

range mixture of matter and antimatter forming a weakly-coupled phase. The idea of unparticle was first considered by F. Smarandache in 2004, 2005 and 2006, when he uploaded a paper on CERN web site and he published three papers about what he called 'unmatter', which is a new form of matter formed by matter and antimatter that bind together. Unmatter was introduced in the context of 'neutrosophy' (Smarandache, 1995) and 'paradoxism' (Smarandache, 1980), which are based on combinations of opposite entities 'A' and 'antiA' together with their neutralities 'neutA' that are in between."<sup>1</sup> See also Smarandache [13].

Nonetheless, in this paper, unmatter is considered as a transition state (pre-physical) from aether to become ordinary matter/particle, see also [14]. Moreover, superfluid model of dark matter has been discussed by some authors [7].

As one more example/case of our proposed scheme of transition from aether to matter, see a recent paper [18]. See the illustrations at pages 5 and 6 of [18] regarding the physically observed properties of the Galactic Center (GC), which are obviously completely different from the imaginary "black hole" model.

The mapping of the magnetic field structures of the Core is a profile of a torus, as we have previously suggested. Page 5 also illustrates the relation between Sag A and Sag B and the space in between them.

These illustrations are also relevant to *matter creation* at the galactic scale. Also note the gamma ray distributions in [18], which are relevant to matter destruction processes. Electrical discharges such as lightning, stars, and galaxies, all produce gamma rays. Gamma ray resonance dissociates atomic matter back into the aether at the rate of 6,800,000,000 **horsepower** of energy liberated per gram of matter dissociated per second. And where does all that

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<sup>1</sup> <http://fs.unm.edu/unmatter.htm>

energy go? Back into creating new matter. It's a never-ending cycle, and infinitely Universe-wide.

### **Towards QED without renormalization.**

One problem in theoretical physics is how to do away with infinity and divergence in QED without renormalization. As we know, renormalization group theory was hailed as cure in order to solve infinity problem in QED theory.

For instance, a quote from Richard Feynman goes as follows:

“What the three Nobel Prize winners did, in the words of Feynman, was "to get rid of the infinities in the calculations. The infinities are still there, but now they can be skirted around . . . We have designed a method for *sweeping them under the rug*.”[19]

And Paul Dirac himself also wrote with similar tune:

“Hence most physicists are very satisfied with the situation. They say: "Quantum electrodynamics is a good theory, and we do not have to worry about it any more." I must say that I am very dissatisfied with the situation, because this so-called "good theory" does involve neglecting infinities which appear in its equations, neglecting them in an arbitrary way. This is just not sensible mathematics. Sensible mathematics involves neglecting a quantity when it turns out to be small—not *neglecting it just because it is infinitely great and you do not want it!*”[20]

Here we submit a viewpoint that the problem begins with assumption of point particle in classical and quantum electrodynamics. Therefore, a solution shall be sought in developing fluidic Electrodynamics [10], i.e. by using fluid particle, or perhaps we can call it “*fluidicle*.” It is hoped that a fluidicle can remove the infinity problem caused by divergence.

And fluidicle can be viewed as a solution from perspective of Neutrosophic Logic.

### **Resolution to conflicting paradigms in medicine.**

It is well known by most medicine practitioners, that Western approach to medicine is based on “*curing*” or “*attacking*” a disease, one by one. This is called germ theory: one cure for one disease (Pasteur). On the opposite side, Eastern medicine is based in particular on ancient wisdom of returning the balance of the body, in other words: to *harmonize* our body and our live with nature. Although those two approaches in medicine and healthcare have caused so many conflicts and misunderstandings, actually it is possible to do a dialogue between them.

From Neutrosophic Logic perspective, a resolution to the above conflicting paradigms can be found in developing novel approaches which appreciate both traditions in medicine, or we may call such an approach: “*curemony*,” i.e. by at the same time curing a disease and restoring balance and returning harmony in one’s *body-mind-spirit as a whole*.

Although we don’t mention here specific case example, in general speaking we can mention:

- a. in HGH therapy, it is known that nutrition can affect the well-being of body [12],
- b. in the same way *Epigenetics* admits the role of external factors into the genes.
- c. We can also mention that psoriasis –a skin problem- can be related to stress and other emotions, which suggests a plausible new term: *psychodermatology*. [11]

All of these examples seem to suggest relational aspect within human being, among *mind-body-spirit*, just like what Eastern medicine emphasizes all along. In some literature, such a dialogue between Western and Eastern medicine approaches can be considered as *integrative medicine*, but actually it goes far deeper that just “integrative”, it is more like rethinking the “isolate and solve”

attitude of Western scientists, toward more “*relational biology*.” And the concept of systems biology or relational biology have become new terms in recent years. See also recent literatures in this subject [15][16][17].

Hopefully many more approaches can be developed in the direction as mentioned above.

### **Concluding remarks.**

In this paper, we discussed three possible applications of Neutrosophic Logic in the field of matter creation processes etc. For instance, a redefinition of term “unmatter” is proposed here, where under certain conditions, aether can transform using Bose condensation process to become “*unmatter*”, a transition phase of material, which then it sublimates into matter (solid, gas, liquid). Unmatter can also be considered as “pre-physical matter.” Moreover, a transition phase between fluid and particle (or fluidicle) is considered necessary in order to solve the “point particle” assumption which cause the divergence problem in QED. And for the third application of NL, we consider a dialogue is possible between Eastern and Western approaches to medicine. Further researches are recommended in the above directions.

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