

Florentin Smarandache: Law of included Multiple-Middle. Book Review

Jozef Novak-Marcincin¹, Daniela Gîfu², Mirela Teodorescu³

¹Technical University of Košice, 04200 Košice, Slovakia

²"Alexandru Ioan Cuza" University of Iași, Bd. Carol I no. 11, 700506 Iași, Romania

³University of Craiova, 13 A. I. Cuza Street, 200585 Craiova, Romania

*E-mail address: danigifu@yahoo.com

ABSTRACT

Florentin Smarandache is known as scientist and writer. He writes in three languages: Romanian, French, and English. He graduated the Department of Mathematics and Computer Science at the University of Craiova in 1979 first of his class, earned a Ph. D. in Mathematics from the State University Moldova at Kishinev in 1997, and continued postdoctoral studies at various American Universities such as University of Texas at Austin, University of Phoenix, etc. after emigration. He did post-doctoral researches at Okayama University of Science (Japan) between 12 December 2013 - 12 January 2014; at Guangdong University of Technology (Guangzhou, China), 19 May - 14 August 2012; at ENSIETA (National Superior School of Engineers and Study of Armament), Brest, France, 15 May - 22 July 2010; and for two months, June-July 2009, at Air Force Research Laboratory in Rome, NY, USA (under State University of New York Institute of Technology). In U.S.A. he worked as a software engineer for Honeywell (1990-1995), adjunct professor for Pima Community College (1995-1997), in 1997 Assistant Professor at the University of New Mexico, Gallup Campus, promoted to Associate Professor of Mathematics in 2003, and to Full Professor in 2008. Between 2007-2009 he was the Chair of Math & Sciences Department.

Keywords: neutrosophy; truth-value; false-value; neutrality

1. INTRODUCTION

Florin Smarandache stated: "Paradoxism started as an anti-totalitarian protest against a closed society, where the whole culture was manipulated by a small group. Only their ideas and publications counted. We couldn't publish almost anything. Then, I said: Let's do literature... without doing literature! Let's write... without actually writing anything. How? Simply: literature-object! 'The flight of a bird', for example, represents a "natural poem", that is not necessary to write down, being more palpable and perceptible in any language that some signs laid on the paper, which, in fact, represent an "artificial poem": deformed, resulted from a translation by the observant of the observed, and by translation one falsifies. Therefore,

a mute protest we did! Later, I based it on contradictions. Why? Because we lived in that society a double life: an official one - propagated by the political system, and another one real. In mass-media it was promulgated that 'our life is wonderful', but in reality 'our life was miserable'. The paradox flourishing! And then we took the creation in derision, in inverse sense, in a syncretic way. Thus the paradoxism was born. The folk jokes, at great fashion in Ceausescu's 'Epoch', as an intellectual breathing, were superb springs. The "No" and "Anti" from my paradoxist manifestos had a creative character, not at all nihilistic." Paradoxism, following the line of Dadaism, Lettrism, absurd theater, is a kind of up-side down writings!

2. INCLUDED MULTIPLE-MIDDLE

In this book, "Law of Included Multiple-Middle", published by Education Publisher & EuropaNova Columbus – Bruxelles 2014, the author pledges for the generalization of the Lupasco-Nicolescu's Law of Included Middle to the Law of Included Multiple-Middle, which is very well described by the n-valued refined neutrosophic logic: i.e. the indeterminacy [or neutral] value (I) of a proposition can be split into multiple types of indeterminacies such as I1, I2, and so on. The indeterminacy [or neutral] value is actually an extension of the included-middle value; indeterminacy comprises the included-middle. Even more, depending on each particular proposition, one can split the truth-value (T) of a proposition into multiple types of truths such as T1, T2, etc. and similarly one can split the falsehood-value of the proposition into multiple types of falsehoods such as F1, F2, etc.

The book is structured as dialogues that are a compilation of different dialogues – during the years – on neutrosophy and related topics between author with academic colleagues, mostly by email, who are represented by a fictional character (somehow resurrected from Plato's dialogues), Filokratos, and the author put in his mouth opinions, ideas, questions, comments expressed by academic fellows, in a collective spirit.

Neutrosophy is a new branch of philosophy that studies the origin, nature, and scope of neutralities, as well as their interactions with different ideational spectra. Etymologically, neutro-sophy [French neutre < Latin neuter, neutral, and Greek sophia, skill/wisdom] means knowledge of neutral thought. The term was coined by the author.

This theory considers every notion or idea <A> together with its opposite or negation <antiA> and with their spectrum of neutralities <neutA> in between them (i.e. notions or ideas supporting neither <A> nor <antiA>). The <neutA> and <antiA> ideas together are referred to as <nonA>. Neutrosophy is a generalization of Hegel's dialectics (the last one is based on <A> and <antiA> only). Hegelian dialectic, consists of threefold manner, as comprising three dialectical stages of development: a thesis, giving rise to its reaction, an antithesis, which contradicts or negates the thesis, and the tension between the two being resolved by means of a synthesis. On the other hand, Hegel did use a three-valued logical model that is very similar to the antithesis model, but Hegel's most usual terms were: Abstract-Negative-Concrete. Hegel used this writing model as a backbone to accompany his opinions in his opera. The formula, thesis-antithesis-synthesis, does not explain why the thesis requires an antithesis. However, the formula, abstract-negative-concrete, suggests a flaw, or perhaps an incomplete-ness, in any initial thesis—it is too abstract and lacks the negative of trial, error and experience.

Logic started in Ancient with Classical Logic of Aristotle, developed and covered by Three Valued Logic of Lukasiewicz, next ring being Fuzzy Logic of Zadeh, finally the comprehensive Neutrosophic Logic of Smarandache.

According to Neutrosophy theory every idea $\langle A \rangle$ tends to be neutralized and balanced by $\langle \text{anti}A \rangle$ and $\langle \text{non}A \rangle$ ideas - as a state of equilibrium. In a classical way $\langle A \rangle$, $\langle \text{neut}A \rangle$, $\langle \text{anti}A \rangle$ are disjoint two by two. But, since in many cases the borders between notions are vague, imprecise. Sorites, it is possible that $\langle A \rangle$, $\langle \text{neut}A \rangle$, $\langle \text{anti}A \rangle$ (and $\langle \text{non}A \rangle$ of course) have common parts two by two, or even all three of them as well.

Neutrosophy is the base of neutrosophic logic, neutrosophic set, neutrosophic probability, and neutrosophic statistics that are used in engineering applications (especially for software and information fusion), medicine, military, airspace, cybernetics, physics.

The fundamental thesis of neutrosophy is that every idea has not only a certain degree of truth, as is generally assumed in many-valued logic contexts, but also a falsity degree and an indeterminacy degree that have to be considered independently from each other. Smarandache seems to understand such "indeterminacy" both in a subjective and an objective sense, i.e. as uncertainty as well as imprecision, vagueness, error, doubtfulness etc. Neutrosophy has laid the foundation for a whole family of new mathematical theories generalizing both their classical and fuzzy counterparts, such as neutrosophic set theory, neutrosophic probability, neutrosophic statistics and neutrosophic logic. The neutrosophic framework has already found practical applications in a variety of different fields, such as relational database systems, semantic web services, financial data set detection and new economy growth and decline analysis. Neutrosophic emergences are the unexpected occurrences of some major neutrosophic effects from the interaction of some minor qualitative elements. Emergence would be seen as a major phenomenon occurrence, important and significant from the reaction of two or more minor unimportant, insignificant elements. On the other hand, the incidence is described as the application of a law, of an axiom, of an idea, of a conceptual accredited construction on an unclear, indeterminate phenomenon, contradictory to the purpose of making it intelligible. The incidence is the intelligibilization procedure using the concept: basically apply a previous theoretically validated concept is practically applied. If the emergence is a variant of the cognitive bottom – up processing, the incidence is a variant of the top – down cognitive processing.

Neutrosophy handles all neutralities. In the neutrosophic taxonometry, a class of neutralities is represented by the neutralities that, without turning into contradiction, generate qualitative leaps. The emergence is the cognitive phenomenon in which, from two or more connected neutralities, without contradiction, a change of quality or a qualitative leap result. Thinking in Hegelian terms has an axiom the idea that the qualitative change, qualitative emergences may arise from related neutral items.

Any manifestation of life is a component of communication, it is crossed by a communication passage. People irrepressibly generate meanings. As structuring domain of meanings, communication is a place where meanings burst out volcanically. Manifestations of life are surrounded by a halo of communicational meanings. Human material and ideatic existence includes a great potential of communication in continuous extension. The human being crosses the path of or is at the intersection of different communicational routes. The life of human beings is a place of communication. Consequently, any cognitive or cogitative manifestation presents a route of communication. People consume their lives relating by communicationally. Some communicational relationships are contradictory, others are neutral, since within the manifestations of life there are found conflicting meanings and/or neutral meanings. Communicational relations always comprise a set of neutral, neutrosophic meanings. Communication in general is a human manifestation of life with recognizable profile. Particularly, we talk about scientific communication, literary communication, pictorial communication, sculptural communication, esthetic communication and so on, as specific

manifestations of life. All these include coherent, cohesive and structural series of existential meanings which are contradictory and/or neutral, neutrosophic. It can be asserted that in any communication there are routes of access and neutrosophic routes. Any communication is traversed by neutrosophic routes of communication.

Smarandache's concept focuses on revealing the predominantly neutrosophic character of any communication and aesthetic interpretation. Neutrosophy, is a coherent thinking of neutralities; different from G. W. F. Hegel, neutrality is the rule, the contradiction is the exception; the universe is not a place of contradictions, but one of neutralities; the material and significant-symbolic universe consists predominantly of neutrality relationships. Any communication is accompanied by interpretation; sharply, aesthetic communication, by its strong ambiguous character, forces the interpretation. Since, due to comprehension, description and explanation, the interpretation manages contradictions, understanding conflicts and roughness of reading, aesthetic interpretation is revealed as a deeply neutrosophic interpretation. Communication and aesthetic interpretation prevalently manage neutralities but contradictions.

Very prolific, Florentin Smarandache is author, co-author, editor, and co-editor of 180 books published by about forty publishing houses (such as university and college presses, professional scientific and literary presses, such as Springer Verlag (in print), Univ. of Kishinev Press, Pima College Press, ZayuPress, Haiku, etc.) in ten countries and in many languages, and 250 scientific articles and notes, and contributed to over 100 literary and 50 scientific journals from around the world.

3. CONCLUSION

Florentin Smarandache is a delicate, complete, comprehensive, propensive scientist, we should like to conclude with his words: "Did humanity really reach its insensitivity limit where the only reason, where sensible permanently lost his existential value? If so, that means Albert Camus is right: the only logical solution is suicide. To escape the darkness of death, the nightmares that we set ourselves in her name we have several solutions including apparent suicide, or why not the life performing optimism. Suicide is <anti-A>; to genuine optimism represented by neutrosophic <A>. If we accept the suicide or its equivalent or <anti-A> is such as if we should accept to cut off one's nose to spite one's face. So says also Brancusi, he doesn't create the beauty, he just removes unnecessary material to be easier for us to discover new beauty next to him. Similarly we define (is removed) <anti-A> for beauty and for its sense, to be visible the beauty of our existence in front of nonexistence. Of nonexistence fears any existence, even the Universe itself, maybe nonexistence in itself is not afraid of itself, or people who in their existence forget or do not know that they exist there. Similarly we define (we remove) <anti A> for the beauty and its sense, to be visible the beauty of our existence in front of the nonexistence".

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