## ON SMARANDACHE MIXED NON-EUCLIDEAN GEOMETRIES

Professor Emeritus Anghel N. Rugina Northeastern University, Boston, MA 02130, USA

Abstract. In this short paper I compare the Smarandache's Non-Euclidean Geometries [2] with my Orientation Table For Any Science [1].

## Introduction:

Here it is An Orientation Table For Any Science (Natural or Social)

## Building blocks:

S = stable (equilibrium) elements, forces, values, behavior

U = unstable (disequilibrium) elements, forces, values, behavior

<u>Models</u> :	S	υ	Description
M1 = 100%	6 S	0	A system of general stable equilibrium at its limit of perfection
			The methodological habitat for truths in the abstract or the pure classical model in science, in the sense of Newton (physics) or Walras (economics)
	S + 5%		A system of stable equilibrium but with minor deviations . This is the methodological habitat for truths in the concrete. It is the case for special relativity. (Einstein and Newton)
	S + 35%		A mixed system of simple anomalies or relativity of the first order. The equilibrium elements still prevail. Habitat for truths in the concrete.
M4 = 50%	S + 50%	U	A mixed system of unstable equilibrium. In economics it represents the Keynes- ian model of "equilibrium with un- employment but adding the prefix of "unstable". It is the usual model in modern science guided by unstable equilibrium or "stable disequilibrium".
	S + 65%	σ	A mixed model of compound anomalies or relativity of the second order where disequilibrium elements prevail. A weak major disequilibrium.
M6 = 5% s	S + 95%	U	A borderline mixed system where dis- equilibrium elements dominate to a

very large degree. A strong major disequilibrium.

M7 = 100% U

A system of total disequilibrium dominated completely by pure contradictions, real chaos.

My non-understandings are:

- "Mixed Non-Euclidean Geometries" cannot mean the same thing with "Anti-Geometry". Tis would involve that all Non-Euclidean Geometries deny each other.
- 2. The "Euclidean Geometry" is just one model, specifically Model Ml on my Orietation Table. Indeed, a similar Orientation Table can be constructed for Geometry. See: enclosure:p.5
- 3. Independent of Model M1 (Euclidean), there is an unlimited number of possible mixed, Noneuclidean, concentrated just for study purposes in 6 other models. Only Model M7 which represents the Geometry of total disequilibrium or chaos negates model M1 and therefore may be called the Anti-Euclidean or Anti-Classical system of Geometry. Actually this is the only case when we can talk about M7 Anti-Geometry with specification.
- 4. The Non-Euclidean M2,M3,M4, M5 and M6 which represent a minor disequilibrium, a neutral disequilibrium (M4) or unstable equilibrium and major disequilibria (M5,M6) systems of Geometry <u>do not</u> "run counter to the classical ones" (M1 with truth in the abstract and M2 with truth in the concrete) but they are just <u>different</u> in various degrees. There is no contradiction here or, if there is one then it is partial or imperfect but not complete.
- 5. To "transform the apparently unscientific ideas into scientific ones" is a treacherous operation. To me something "unscientific" means being "untrue" and I do not see how you can transform logically something which is <u>not true</u> into something which <u>is true</u>! Unless, one is willing to use a "Hocus-Pocus" logic (just a joke) or incomplete logic" which closer to "Fuzzy Logic" (a more recent term). I do not know how Bertrand Russell would react to the "Fuzzy-Logic" name!
- 6. The term "Anti-Geometry" is not quite correct, at least not complete Anti-Classical or Euclidean Geometry is O.k. but with the understanding that it refers to Model M7.

## References:

[1] Anghel N. Rugina, Prolegomena to any Future Study in Economics, Finance and Other Social Sciences: The Road to a Third Revolution in Economics, Financial, Social, Ethical, Logical and Political Thinking, International Journal of Social Economics, MCB University Press, West Yorkshire, England, Vol. 25, No. 5, 1-388, 1998.

[2] Florentin Smarandache, Mixed Non-Euclidean Geometries (Anti-Geometry), Proceedings of the First Symposium (editor Serban C. Andronescu), Romanian Academy of Scientists, The American Branch, American Institute for Writing Research, New York, 109-127, 1998.