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Paradoxist Mathematics

PARADOXIST MATHEMATICS

Abstract. The goal of this paper is to experiment new math concepts and theories, especially if they run counter to the classical ones. To prove that contradiction is not a catastrophe, and to learn to handle it in an (un)usual way. To transform the apparently unscientific ideas into scientific ones, and to develop their study (The Theory of Imperfections). And finally, to interconnect opposite (and not only) human fields of knowledge into as-heterogeneous-as-possible another fields.

The author welcomes any comments, notes, articles on this paper and/or the 120 open questions bothering him, which will be published in a collective monograph about the paradoxist mathematics.

Key words: non-mathematics, anti-mathematics, dadaist algebra, surrealist probability, cubist geometry, impressionist analysis, theory of non-choice, wild algorithms, infinite computability theory, symbolist mechanics, abstract physics, formalist chemistry, expressionist statistics, hermetic combinatorics, Sturm-und-Drang computer science, romanistics topology, letterist number theory, illuminist set theory, aesthetic differential/integral/functional equations, paradoxist logics, anti-leterature, experimental drama, nono-poems, MULTI-STRUCTURE, MULTI-SPACE, Euclidean spaces of non-integer or negative dimensione, non-system, anti-system, system with infinetely many independent axioms, unlimited theory, system of axioms based on a set with a single element, INCONSISTENT SYSTEMS OF AXIOMS, CONTRADICTORY THEORY, (unscientific, wrong, amalgam) geometry, (CHAOS or MESS) GEOMETRIES (PARADOXIST GEOMETRY, NON-GEOMETRY, COUNTER-PROJECTIVE GEOMETRY, ANTI-GEOMETRY), paradoxist model, critical area of a model, paradoxist axoims, counter-axioms, counter-model, counter-projective space, anti-axioms, anti-model, theory of distorted buildings of Tits, paradoxist trigonometry, DISCONTINUOUS MODELS, DISCONTINUOUS GEOMETRIES.

INTRODUCTION.

The "Paradoxist Mathematics" may be understood as Experimental Mathematics, Non-Mathematics, or even Anti-Mathematics: not in a nihilistic way, but in positive one. The truly innovative researchers will banish the old concepts in oder of check, by heuristic processes, some

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new ones: their opposites. Don't simply follow the crowd, and don't accept to be manipulated by any (political, economical, social, even scientific, or artistic, cultural, etc.) media! Learn to conradict everuthing and everybody!! "Duibito, ergo cogito; cogito, ergo sum", said Rene Descartes, "I doubt, therefore I think; I think, therefore I exist" (metaphysical doubt). See what happens if you deny the classics' theory?

Since my chiidhood I didn't like the term of 'exact' sciences... I hated it! I didn't like the 'truth' displayed and given to me on a plate - as food to be swallowed although not to my taste.

I considered the axioms as dogmas (not to think with your brain, but with others'!), and I refused to follow them. I wanted to be free in life - because at that time I was experiencing a political totalitarian system, without civil rights - hence I got the same feelings in science. That's why I didn't trust anybody, especially the 'official' peoples. (This is REVOLT against all petrified knowledge).

A system of axioms means to me a dictatorship model in science. It's not possible to per-fectly formalize, i.e. without any intuition, but sometimes researchers like to trick themselves! Even Hilbert recognized that just in his 1898 book of <Foundations of Geometry> saying about the groups of axiomes that: "Each of these groups expresses, by itself, certain related funda-mental facts of our intuition". And Kant in <Kritik der reinen Vernunft, Elementarlehre>, Part 2, Sec. 2: "All human knowledge begins with intuition, thence passes to concepts and ends with ideas". Therefore, axiomatization begins with intuition - is it a paradox? The "traditional concept of recognizing the axioms as obvious truths was replaced by the understanding that they are hypotheses for a theory" [<Encyclopedic Dictionary of Mathematics>, second edition, by the Mathematical Society of Japan, edited by Kiyosi Ito, translated in English, MIT Press, Cambridge, Massachusetts, London, 1993, 35A, p. 155].

The really avant-garde mind will entirely deny everything from the past. "No army can withstand the strenghth of an idea whose time has come" (Victor Hugo).

Questions 1-17 (one for each defined bellow section):
While, in a usual way, people apply mathematics to other human fields - what about inserting literary and art theory in mathematics?

How would we define the 'dadaist algebra', referring to the 1916-22 nihilistic mouvment in literature, painting, sculpture that rejected all accepted conventions and produced non-sens and un-readable creations? How can we introduce this style and similar <laws> in algebra??

But the 'surrealist probability'? (this syntagme makes a little sense, doesn't it?).

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Or the 'cubist geometry', referring to the cubist paintings? (this may be exciting!).

The 'impressionist analysis'?

The 'theory of ... non-choice':

- from two possibilities, pick the third one! (Buridan's ass!)
- the best and unregrettable choice occurs when it's one and only possibility to choose from!

The 'wild algorithms', meaning algorithms with an infinite number of (non-linear) steps; And the 'infinite computability theory' = how much of mathematics can be decribed in such wild algorithms.

Same directions of study towards:

'symbolist mechanics',

'absract physics' (suppose, for example, as an axiom, that the speed of light is surpassed - [see Homer B. Tilton, "Light beyond belief", Echo Electronic Press, Tucson, 1995], but if the speed of a material body can be unbounded, even towards infinite? and see what you get by this anti-relativity theory: inventing new physics),

'formalist chemisttry',

'expressionist statistics',

'hermetic combinatorics',

'Sturm-und-Drang computer science' (!)

'romanticist topology' (wow, love is involving!)

'letterist number theory' (!)

'illuminist set theory',

'esthetic differential/integral/functional equations', etc.

Question 18:

The 'paradoxist logics', referring to the F.Smarandache's 1980 Paradoxist Literary Movment of avant-gardes, which may lead you to the anti-logic (which is logical!).

Features of the 'paradoxist logics':

\# The Basic Thesis of paradoxism:

everything has a meaning and a non-meaning in a harmony each other.

\# The Essence of the paradoxism:

a) the sense has a non-sense, and reciprocally

b) the non-sense has a sens.

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The Motto of the paradoxism:

"All is possible, the impossible too!"

The Symbol of paradoxism:

(a spiral - optic illusion, or vicious circle)

The Delimitation from other avant-gardes:

- the paradoxism has a significance (in literature, art, science), while the dadaism, the lettrism, the absurd mouvment do not;
- the paradoxism especially reveals the contradictions, the anti-nomies, the anti-theses, the anti-phrases, the antagonism, the non-conformism, the paradoxes in other words of anything (in literature, art, science), while the futurism, cubism, surrealism, abstractism and all other avant-gardes do not focus on them.

The Directions of the paradoxism:

- to use scientific methods (especially algorithms) for generating (and also studing) contradictory literary and artistic works;
- to use artistic and literary methods for generating (and also studying) contradictory scientific works;
- to create contradictory literary and artistic works in scientific spaces (using scientific: symbols, meta-language, matrices, theorems, lemmas, definitions, etc.).

Question 19:

From Anti-Mathematics to Anti-Literature:

- I wrote a drama trilogy, called "MetaHistory", against the totalitarism of any kind: political, economical, social, cultural, artistic, even scientific (tendency of someones to monopolize the informational system, and to build not only political, economical, social dictatorships, but even distatorships in culture, art, and science ... promoting only their people and friends, and boycotting the others);

one of them, called "A Upside-Down World", with the property that by combinations of its scenes (which are independrent modules) one gets 1, 000, 000, 000 of bilions of different dramas!

another drama, called "The Country od the Animals", has no ... dialogue! (the characters' speech is showing on written placards).

- I wrote "Non-poems":

^ poems with no words!

^ universal poems: poem-grafitti, poem-drowing, etc.

^ poems in 3-dimensional spaces;

^ poems in Beltrami/Poincare/Hausdorff/etc. spaces;

^ poems poetical models of ... mathematics: poem-theorem, poem-lemma.

Try the reverse way: to apply math (and generally speaking science) in arts and literature. (There are famous people: as Lewis Carroll, Raymond Queneax, Ion Barbu, etc. mathematicians and writers simultaneously.)

Learn to deny (in a positive way) the masters and their work. Thus will progress our society. Thus will make revolutionary steps towards infinite... Look at some famous examples:

-Lobacevsky contradicted Euclid in 1826: "In geometry I find certain imperfections", he said in his <Theory of Parallels>.

-Riemann came to contradict both his predecessors in 1854.

-Einstein contradicted Newton in early years of the XX-th century, saying that if an object moves at velocity close to the speed of light, then time slows down, mass increases, and length in the direction of motion decreases, and so on...

Sometimes, people give new interpretations to old things... (and old interpretation to new things)!

[Don't talk about the humanistic field (art, literature, philosophy, sociology, etc.), where to reject other people's creation was and is being very common! And much easier, comparing with the scientific field.]

What would be happened if everybody had obeyed the predecessors? (a stagnation).