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## Rudolf Kaehr

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[The Chinese-Challenge\\_blog\\_2006-09 :: 中国挑战](#)

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### Abstract

"The Chinese Challenge"-Teamblog is opening up a discussion about a possible new rationality hidden in the Chinese writing. The main question is: What can we learn from China that China is not teaching us? It is proposed that a study of polycontextural logic and morphogramatics could be helpful to discover this new kind of rationality.

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### Categories of the RK-Archive

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|--|--|
| K01 Gotthard Günther Studies                     | K08 Formal Systems in Polycontextural Constellations |
| K02 Scientific Essays                            | K09 Morphogramatics                                  |
| K03 Polycontextuality – Second-Order-Cybernetics | K10 The Chinese Challenge or A Challenge for China   |
| K04 Diamond Theory                               | K11 Memristics Memristors Computation                |
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| K06 Diamond Strategies                           | K13 RK and friends                                   |
| K07 Contextural Programming Paradigm             |  |

# The Chinese Challenge :: 中国挑战

*"The Chinese Challenge"-Teamblog is opening up a discussion about a possible new rationality hidden in the Chinese writing. The main question is: What can we learn from China that China is not teaching us? It is proposed that a study of polycontextural logic and morphogramatics could be helpful to discover this new kind of rationality. Those topics of polycontexturality are presented at my website and at the complementary Blog Rudy's Diamond Strategies. Start with the "Pamphlet".*

## Contributors

[Rudolf](#)

[Steve](#)

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THURSDAY, AUGUST 31, 2006

## China, USA, Europe: In the Media

### Questions to Fareed Zakaria

*Brooklyn, NY:* How can young people best prepare themselves for a future where China is dominant?

*Fareed Zakaria:* Learn about China, learn about Asia. Travel. It's not just the rise of China. It's a whole new world out there, much more important, anxious to be heard, unwilling to be ignored. Americans really need to wake up to this.

*Manila, Philippines:* And what about the European Union? Are they not also the next superpower? What issues can you give about EU and China?

*Fareed Zakaria:* Europe is a prosperous trading and economic grouping. It can not and will never act as one country on foreign and security policy. Also, it is having great trouble restricting and even greater trouble taking in immigrants. This will limit its future growth. Europe may turn out to be the superpower that just couldn't.

<http://www.msnbc.msn.com/id/7690882/site/newsweek/>

*When China awakes, it will shake the world.*

- *Napoleon Bonaparte*

Richard Bernstein and Ross H. Munro, *The Coming Conflict With China* (New York: Alfred A. Knopf Inc, 1997), p 203

### Great Powers

China's history in the 20th century has been marked by occupation and civil war. This experience has fueled its strong desire for Great Power status and at the same time put it decades behind the West in technological development. Under the leadership of Deng Xiaoping, China has undergone a transformation, which has produced a tremendous economic turnaround. China is now a major trading nation which has built up an impressive foreign currency holding and is predicted to be the world's largest economy by 2010. The Chinese leadership has recognized that economic reform is the only way to achieve the status it desires on its own terms.

<http://www.fas.org/nuke/guide/china/doctrine/0046.htm#n1>

### US-Education deficit

Get Smart, by Norman Augustine

Next to war, the greatest threat to American power and prosperity is our acute education deficit.

<http://www.the-american-interest.com/cms/contents.cfm>

## Language bridge

The major writing systems of East Asia do hold complexities not encountered in the languages of the West. However, it is the beauty and challenge of these writing systems that makes them so fascinating. By accepting this challenge of comprehension, we take the first step—not only economically—but also culturally, toward greater understanding. Language is the most tangible bridge between the divide of East and West.

<http://www.globalz.com/info.aspx?PageID=30>

## U.S. Perceptions of a Chinese Threat

George Friedman

Today, it appears to be the Pentagon's view that China is following the Soviet model. The Chinese will not be able to float a significant surface challenge to the U.S. Seventh Fleet for at least a generation -- if then. It is not just a question of money or even technology; it also is a question of training an entirely new navy in extraordinarily complex doctrines.

Therefore, China's actions and America's interpretation of those actions must be taken extremely seriously over the long run. The United States is capable of threatening fundamental Chinese interests, and China is developing the capability to threaten fundamental American interests. Whatever the subjective intention of either side at this moment is immaterial. The intentions ten years from now are unpredictable.

Each side is defensive at the moment. Each side sees a long-term possibility of a threat. Each side is moving to deflect that threat. This is the moment at which conflicts are incubated.

<http://junkpolitics.blogspot.com/archive/2006/06/01/what-does-america-think-of-china.html>

posted by Rudolf | 4:41 AM | 0 comments [links to this post](#) 

TUESDAY, AUGUST 29, 2006

## Alphabetism

***Alphabetic script is in itself the most intelligent.* Hegel, Enzyklopädie**

The term alphabetism as used in the Pamphlet is mainly in the sense of deconstructivism and grammatology (Derrida). Obviously, this use is not the only use of the term alphabetism, more common meanings of alphabetism are *acronym*, *initialism* and *alphabetic discrimination*.

## Alphabetism as Acronym and Initialism

Acronyms and initialisms are abbreviations, such as NATO, laser, and ABC, written as the initial letter or letters of words, and pronounced on the basis of this abbreviated written form. [...] The word alphabetism is sometimes used to describe these "letter name" abbreviations.

<http://en.wikipedia.org/wiki/Acronym>

## Alphabetism as Discrimination

Over the past century, all kinds of unfairness and discrimination have been condemned or made illegal. But one insidious form continues to thrive: alphabetism. This, for those as yet unaware of such a disadvantage, refers to discrimination against those whose surnames begin with a letter in the lower half of

the alphabet.

It has long been known that a taxi firm called AAAA cars has a big advantage over Zodiac cars when customers thumb through their phone directories. Less well known is the advantage that Adam Abbott has in life over Zo&Zysman. English names are fairly evenly spread between the halves of the alphabet. Yet a suspiciously large number of top people have surnames beginning with letters between A and K. (Text 2) <http://bbs.eol.cn/archive/index.php/t-143856.html>

Another alphabet related discrimination mentioned by Matthew Yglesias:

[...] after the featured speakers said what they had to say, did a question and answer session for reporters with questions asked in alphabetical order! Alphabetism is, truly, the last socially acceptable form of discrimination in America. Liberals, really, need to do a better job of reaching out to the alphabetically challenged.

<http://yglesias.typepad.com/matthew/2005/03/index.html>

*Analphabetism* is then an opposite to alphabetism.

Analphabetism as a discrimination of non-alphabetic cultures.

## Alphabetism as Western Ideology

### Hegel writes in his *Encyclopaedia of the Philosophical Sciences*

Part III: The Philosophy of Spirit (1830)

*Alphabetic writing* is on all accounts the more intelligent: in it the word – the mode, peculiar to the intellect, of uttering its ideas most worthily – is brought to consciousness and made an object of reflection.

Engaging the attention of intelligence, as it does, it is analysed; the work of sign-making is reduced to its few simple elements (the primary postures of articulation) in which the sense-factor in speech is brought to the form of universality, at the same time that in this elementary phase it acquires complete precision and purity. Thus alphabetic writing retains at the same time the advantage of vocal language, that the ideas have names strictly so called: the name is the simple sign for the exact idea, i.e. the simple plain idea, not decomposed into its features and compounded out of them.

*Hieroglyphics*, instead of springing from the direct analysis of sensible signs, like alphabetic writing, arise from an antecedent analysis of ideas. Thus a theory readily arises that all ideas may be reduced to their elements, or simple logical terms, so that from the elementary signs chosen to express these (as, in the case of the Chinese Koua, the simple straight stroke, and the stroke broken into two parts) a hieroglyphic system would be generated by their composition.

[...]

A hieroglyphic written language would require a philosophy as stationary as is the civilisation of the Chinese.

<http://www.marxists.org/reference/archive/hegel/works/sp/suspirit.htm#SU459n3>

### Jacques Derrida, *Speech and writing according to Hegel*, 1971

2. The critique of every philosophical or scientific project of non-phonetic writing. The most eminent example is, of course, the *Leibnizian project of universal characteristics*. One of the essential arguments of the Hegelian critique is precisely that the word and the name would be dislocated, no longer constituting the irreducible and dialectical unity of language. Speaking of the hieroglyphic or *Chinese writing*, Hegel notes (as he does in other texts, notably in the *Logic*): 'this feature of hieroglyphic - the analytic designation of representations - which misled Leibniz to regard it as preferable to alphabetic writing is rather in

antagonism with the fundamental desideratum of language - *the name*'.

<http://www.marxists.org/reference/subject/philosophy/works/fr/derrida1.htm>

## Grammatology and Alphabetism

### Jacques Derrida, *Of Grammatology*, 1967

What can a science of writing begin to signify, if it is granted:

*1 that the very idea of science was born in a certain epoch of writing;*

*2 that it was thought and formulated, as task, idea, project, in a language implying a certain kind of structurally and axiologically determined relationship between speech and writing;*

*3 that, to that extent, it was first related to the concept and the adventure of phonetic writing, valorised as the telos of all writing, even though what was always the exemplary model of scientificity — mathematics — constantly moved away from that goal;*

*4 that the strictest notion of a general science of writing was born, for non-fortuitous reasons, during a certain period of the world's history (beginning around the eighteenth century) and within a certain determined stem of relationships between "living" speech and inscription;*

*5 that writing is not only an auxiliary means in the service of science and possibly its object — but first, as Husserl in particular pointed out in *The Origin of Geometry*, the condition of the possibility of ideal objects and therefore of scientific objectivity. Before being its object, writing is the condition of the epistémè.*

*6 that historicity itself is tied to the possibility of writing; to the possibility of writing in general, beyond those particular forms of writing in the name of which we have long spoken of peoples without writing and without history. Before being the object of a history — of an historical science — writing opens the field of history — of historical becoming. And the former (*Historie* in German) presupposes the latter (*Geschichte*).*

The science of writing should therefore look for its object at the roots of scientificity,. The history of writing should turn back toward the origin of historicity. , A science of the possibility of science? A science of science which would no longer have the form of logic but that of grammatics? A history of the possibility of history which would no longer be an archaeology, a philosophy of history or a history of philosophy?

[...]

With regard to this unity, writing would always be derivative, accidental, particular, exterior, doubling the signifier: phonetic. "*Sign of a sign*," said Aristotle, Rousseau, and Hegel.

<http://www.marxists.org/reference/subject/philosophy/works/fr/derrida.htm>

## Kenogrammatics and Alphabetism

### Gotthard Gunther in: *The logical structure of evolution and emanation*, 1967

The logic discussed in all previous confrontations between Logic and Time was invariably the classic two-valued logic; but it might be proper to raise the old issue again when a logician claims that our traditional theory of thinking is not the only one and that a trans-classic system of rationality might be able to tackle the problem of time if more powerful methods of investigation were available.

Since the classic theory of rationality is indissolubly linked with the concept of value, first of all one has to show that the whole "value issue" covers the body of logic like a thin coat of paint. Scrape the paint off and you will discover an unsuspected system of structural forms and relations suggesting methods of thinking which surpass immeasurably all classic theories.

## Alphabetism and Technology

Today, it is convenient to think that a language is simply a tool for communication. Even if we understand that language is more than a communication instrument, but a medium, too, language is still considered as one and only one of many different other media and techniques of communication. With such an

instrumentalistic view the importance of language and script as disclosing and enclosing a world-view for thinking and living is obscured and lost. It is a simple step then to believe that language and script are only a way *coding* and *codification* which is best realized by the binary code of digitalism. Linearity and digitalism as achievements of alphabetism are foreclosing future developments.

Interestingly, Leibniz' misunderstanding of Chinese language, according to Hegel, and his project of a *Lingua Universalis* led ground for modern technology. Hegel's approach had no technological influence at all. This doesn't mean that his analysis was wrong. What he wanted with his dialectics, thought against any form of formalization, was much too speculative to be understood in a scientific way, and conceptually, it was also ahead of its time. At least, Karl Marx was close enough to Hegel to apply dialectics in a productive way in his analysis of capitalist economy.

Computation matured to a degree that Hegel's dialectical themes of reflectionality are becoming central for Artificial Intelligence and robotics. Now, computer scientists are studying Husserl, Heidegger and Merleau-Ponty, 20th century European philosophers which are more accessible than Hegel, to tackle highly philosophical problems of cognitive, volitive and even conscious computing systems.

Hegel's deep insight into alphabetism led him to become its strongest defender. Ironically, this was possible only by surpassing the limits of reasonable or common sense use of alphabetic language and script. His use of German language is of such a high speculative complexity that it is simply not translatable into other languages. Existing translations are more or less remaind as highly misleading jokes.

posted by Rudolf | 8:13 AM | 0 comments [links to this post](#) 

SATURDAY, AUGUST 26, 2006

## Closure, Decline, End

### End and Closure

*This, for me, is the main situation, horizon or context of thinking that we have named Heidegger/Derrida. I want to maintain that this is still the most radical position that 20th century Continental thought has attained in anticipating the end of metaphysics and mapping out its closure.*

*(Jussi Backman)*

Obviously, closure doesn't mean end. Western cultural history is not coming to a simple end but is moving into its closure (Abschluss, Auflösung). There will be many endings, also ends, like the end of being the only super-power, but some beginnings, too.

### The world as the Ultimate Yellow Pages

*In his 1989 essay "Heidegger's Ear: Philopolemology," Derrida very subtly studies Heidegger's reading of Heraclitus and emphasizes that Heidegger retains from this fragment two features that could – even though Derrida does not say this out loud – be deemed "logocentric." First of all, even in this "original" Heraclitean form, logos is something to be heard, a voice. The plenitude of auditory metaphors in the economy of Heidegger's thinking is one of Derrida's favorite deconstructive targets. Being as logos is something that is heard, something whose address needs listening to. (Jussi Backman)*

Avital Ronell: Telephone Book: Technology, Schizophrenia, Electric Speech.

## Logocentrism

*What is "logocentrism?" It is, obviously, a certain approach to logos – discursivity, language, articulation of meaning, rationality. Derrida does not really define logocentrism but instead specifies its workings at the outset of Of Grammatology:*

*[...] what we will call logocentrism: the metaphysics of phonetic writing [...] that has fundamentally been nothing [...] but the most original and the most powerful ethnocentrism, [...] commanding, within one and the same order,*

- 1. the concept of writing where the phonetization of writing must disguise its own history in producing itself;*
- 2. the history of metaphysics which [...] has always attributed the origin of truth in general to the logos: the history of truth, of the truth of truth, has always been [...] abasement of writing and its repudiation outside "full" speech;*
- 3. the concept of science or of the scientificity of science – which has always been determined as logical [...]. (Jussi Backman)*

## Heidegger on logos

*This, for Heidegger, is precisely the original Greek sense of logos, the original essence of reason, of rationality, of discursively articulate meaningfulness – originally understood not as some subjective faculty but as the very way in which meaningful reality in itself is articulated. This also allows him to call logos an original Greek name for Being, i.e., for the articulation of meaningfulness as such:*

*The Logos of which Heraclitus speaks is, as reading [Lese] and collection [Sammlung], as the One that unifies all, not a feature among beings. This Logos is the original gathering that preserves [verwahrt] beings as the beings that they are. This Logos is Being [Sein] itself, where all beings [das Seiende] hold sway [west].*

*In Heidegger's reading, this original sense of logos is best captured by Heraclitus' famous fragment 50:*

*"Having heard not me but discursive articulation [Logos] itself, it is well-advised [sophon] to go along with it and, in so doing, to articulate [homologein]: All is One [hen panta]."*

<http://www.helsinki.fi/filosofia/tutkijaseminaari/backman.doc>

<http://www.medienwissenschaft.hu-berlin.de/theorien/skripte/pader2.200406.pdf>

posted by Rudolf | 8:13 AM | 0 comments [links to this post](#) 

## Hallucination or Vision?

### Response to Jo Winters

*I have just finished reading your piece on China. I will have to read it again with a dictionary as some of the language in it was unrecognisable to me, i assume this is because i am not a philosopher. But i think i got the general gist of it. The parts of it i feel i did understand i found very interesting, although i was unsure whether the word "hallucination" was exactly what you meant, or whether there is another interpretation of the word that i'm not aware of. I wondered whether the word "vision" was a more apt interpretation of what you and the other theorist meant?*

*Get back to me on this one. I am intrigued to find out what your response is. This is because of my understanding of what an hallucination is. I know there are people in the world who believe that an hallucination is something other worldly but i suspect that this is not what you mean, i*

*may be wrong.*

The choice of the word "hallucination" in the title is surely not motivated by its literal meaning but by its connotation to some literature about Westerners which are writing about Chinese writing without any native knowledge of the writing in question. Since Moliere, thus, we know that the use of a language is not yet the knowledge about its use. Our poor Mr. Jourdain didn't know at all that what he did all the time when he was speaking is called "prose". He was speaking "prose" and not French. Very intriguing. But Han-liang Chang knows both. He is Chinese and he is English educated. His English text "*Hallucinating the Other: Derridean Fantasies of Chinese Script*" was very inspiring for me to hallucinate my own text, voluntarily. Neither being a Chinese nor an English native speaker. I like to be in the in-between of "neither/nor". Thus the choice of this word was motivated by some subversive pleasures which I didn't wanted to neutralize.

My pamphlet may not be in prose but a literary textual montage with complex connotations and references. Some I try to "enlighten" with my annotations and links. To put it in a more prosaic form, say for translation, the word "hallucination" could be replaced by *vision*, *phantasy*, *hope* or similar terms. Not being prose, it is nevertheless not a "mind-fuck". Stylistically I would be happy if my textual adventure wouldn't be in any case a "journalistic essay". I'm not writing a report about China. Sorry, I know you want to become a journalist. But there are different ways of writing, elsewhere, too.

To chose the term "vision" would force a very different text. Today, every company has a vision and even a mission statement. The vision strategy comes as "I have a vision!". With emphasis on both, "I" and "vision". "Pay me properly, and I will solve all your problems, thank to my vision." OK, I don't have a vision. What I'm writing is not so much depending on me or my personal phantasy or vision, but on the possibilities to compose texts given by other texts. Maybe, that's my "vision"?

Hallucination in the context of my pamphlet (flyer) referring to "Derrida", the "other" and "script" is not part of a psychological or psycho-pathological terminology but "melanged" with the French "post-structuralist" or "deconstructivist" way of "playing" with words and intellectual traditions. There is nothing "other worldly", I was writing "wordly", in my use of this word because its action is involved in a "kind of an experimental hallucination capable of permanent self-deconstruction". Again, "self-deconstruction" could be replaced by "self-critics". But this would open up, again, not another story but a different textual undertaking. As far as I know, the Chinese don't have an "other worldly" world like a Christian or Muslim Heaven. But they have their Dragons.

Han-liang Chang, *Hallucinating the Other: Derridean Fantasies of Chinese Script*  
<http://www.lttc.ntu.edu.tw/academics/changhl/hallucinating.pdf>

*Thanks for your reponse, it's brilliant and intriguing. Your right, there are many other "worlds" out there, many other ways of describing things, and many other angles to see life from, and i, as you so rightly pointed out to me, am seeing the world from a literal point of view, like a*

reporter, rather than a philosophical or literary point of view, or both. I think i should use up part of my time before i go to university reading more of a variety of writing. You've inspired me!

posted by Rudolf | 7:33 AM | 0 comments [links to this post](#) 

THURSDAY, AUGUST 24, 2006

## Pamphlet

# The Chinese Challenge: Hallucinations for Other Futures

## ***What can we learn from China that China is not teaching us?***

It is the paradigm of writing on which main cultures are depending. Their kind of rationality, their efficiency of technology, the way they organize society and communication, arts and sciences, all are not to separate from their paradigm of writing. How people are involved in writing and scriptural practice is enabling their possibility of thinking and living. Main cultures always depend on their paradigm of writing. Writing in general is the most abstract mechanism and technology of cultural, political and technological formations.

### **European culture, the first hallucination**

European culture depends on alphabetic writing and the Indian concept of Zero with its mechanism of positionality enabling arithmetic, a rational economy of calculation, formal and programming languages in general.

Leibniz had a first European hallucination about Chinese writing. He conceived in his hallucination the idea of a *Lingua Universalis* as a base of negotational and calculable communication between peoples and nations. He proposed his idea in analogy to the Chinese hieroglyphs which are mediating between different spoken languages by their scripturality. To realize his dream he invented the binary number system as the most non-redundant concept for number representation and calculation. He speculated it as an European answer to the I Ching. Consequently, he invented on this base language-independent calculi, logic and a prototype of a mechanical calculator (computer).

Modern European science and technology followed Leibniz' ideas and produced binarism and digitalism in technology which is, today, the basic technological and economic force in the Western, but also in the Asian, world. But the development of technology in Europe stayed regulated and constraint by the framework of Old European theology, metaphysics and ethics.

### **The US-American dream**

In America, European thinking and technology could get rid of its constraining metaphysical roots. Inventing "*Ubiquitous Computing*", technically realized as Artificial Intelligence, Artificial Live, Cognitive Systems, Robotics, etc., it was able to realize digitalism without frontiers.

Today, the US-American dream is exhausted. In its successful realization it has come to a closure. While Old Europe is still occupied with its Greek roots, US-America, who got rid of these European limitations, now, is missing roots as inspirational resources to design its futures. The necessary decline of America is rooted in its lack of roots. The total detachment from Europe, the lack of own grounds, culminated in digitalism and brought it to its extremes. A more radical technical speculation than the reduction of immortality of the human soul on the base of 1 and 0, as conceived in digital metaphysics, seems not to be accessible. All the following future US-American developments will appear as reiterations of its pragmatistic world-view of digitalism.

Thus, the European and US-American dream, based on Greek alphabetism, Indian number theory and Leibniz' hallucination of a European adoption of the Chinese Model of writing has been dreamt out and lost its power to design planetarian futures.

### **Chinese Model of Writing**

China, which didn't develop similar philosophy, science and technology because of the hyper-complexity of its writing, is now adopting the fruits of Western achievements. But China, for the next epoch, has an advantage to the West: it has its scriptural resources not yet exploited. China's writing, which always was the base and guarantee of its culture and politics, is not limited by alphabetic linearism and digitalism. Linearity of Western thinking is easily mapped onto the tabularity of Chinese rationality. The process of mapping linearity onto tabularity is not producing any kind of identity-disturbance for Chinese self-understanding.

The Chinese concept of writing is tabular, multi--dimensional, embodied, open, complex and based on the experiences of the oldest cultural tradition of mankind. These characteristics of Chinese writing are exactly the criteria for a science, capable to deal with the problems of modern society and opening up new futures.

Hence, the challenge of China today is not its new economic power as the West is fearing and economically exploiting, but lies in the possibility of a re-discovery of its own rationality as the base of a revolutionary technology for the future. Leaving everything American far behind.

The Chinese Challenge to the West is not economical, political or military. It is not the event of a re-awakening economic and technological China which is the Grand Challenge to the West but the possible re-discovery of the operability of its writing system for the design of new rational formal systems, like new mathematics and new programming languages.

Because of its occupation to adapt, at first, to the Western technology and economy, China is not yet, officially, aware about these possibilities of a new main culture for the future.

Maybe, the 19th century was European, the 20th US-American, at least the 21st century will be Chinese.

### **Morphogrammatism, the second hallucination**

Thus, my thoughts may occur, until now, as a second, post-European hallucination about the paradigm of Chinese writing. What I propose, as a first step, is to study polycontextural logic and morphogrammatism as a possible new understanding of notational systems for Chinese rationality and technology emerging beyond exhausted Western paradigms. This, with the knowledge of its risk, is a kind of an experimental hallucination capable of permanent self-

deconstruction as a strategy to surpass Western, and Asian, phono-logo-centrism and metaphysical mono-contextualism in thinking and technology.

Morphogramatics and polycontextuality as including and surpassing the Western design of thinking, computation and programming are satisfying the structural criteria of tabularity and complexity needed for the operative rationality of a new epoch.

Hallucination always had been at the beginning of cultural revolutions.  
It always has been the job of cultural administration to deny it.

[http://www.thinkartlab.com/pkl/media/The\\_Chinese\\_Challenge-CN.pdf](http://www.thinkartlab.com/pkl/media/The_Chinese_Challenge-CN.pdf)

翻译：韩宪平 (Steve Han) <http://hanxianping.bokee.com/5557607.html>

September 2006 / [http://www.thinkartlab.com/CCR/2006\\_09\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2006_09_01_rudys-chinese-challenge_archive.html)

SATURDAY, SEPTEMBER 30, 2006

## Günther's Asymmetry

### Letter from Prof. Dr. Gotthard Günther to

### Prof. Dr. Rainer Wiehl, from 8.12.78

"... A. Gehlen that all main culture is in principle script culture... "

"...strange, so far not solved phenomenon of the Chinese culture...in pre-Christian time admit that there are also alphabetic scripts, which can in principle be much more simple, cleared away and remained with ideograms. In addition a further fact. There are all in all, to which also late characters excluded from taboo reasons, belong approximately 70000 ideograms. In addition however the classical north Chinese contains of only about 500 out-speakable words. In south Chinese there are perhaps 800 or 900, so that on speakable words, even if one counts only the ideograms in use, hundreds of ideogrammatic characters come.

That is, in holding to the ideograms, lies an unconscious insight of a massive asymmetry between spoken and written language.

#### **It is the written language, on which a main culture rests.**

It possesses an identity strength, which stands out clearly against the identity weakness of the spoken word. The Chinese are not in vain the socially most stable people in the past main cultures. They would not be it without this holding to a system, which seems to have disadvantages only for the progressive European.

Now the title of my work in Belgrade is "Identity and Counter-Identity" - i.e. the universe is a complexion of temporal character, in which an identity develops into a counter-identity. In doing so the universe necessarily has to pass through an epoch of ontological identity weakness.

The subjectivity of humans particularly, but generally all subjectivity, are ontological places of identity weakness, which in the long term cannot hold themselves.

That becomes understandable, if one realizes that one can exchange the words object and subject with the pair of

opposites, symmetrical and asymmetrical systems. Only symmetrical systems have a certain stability.

Souls are from the beginning designed on dying, because they are expression of total asymmetry. There is no more powerful asymmetry than those, which lies in the contrast of I and world.

The Chinese failed at the role to liquidate the actual epoch of the main culture, because they tried to develop the much more powerful negative language before they possessed a positive language practically completed in Occidental mathematics.

That cannot be done for purely technical reasons, if one brings to mind oneself the beginnings of the negative language, as I indicated them in the [Heidegger essay](#).

In this premature adherence to the ideogrammatic negative language, China swam against the current of world history, and Europe went in the opposite attitude with history." (translation, kae)

===

## Decision against Alphabetism?

Gotthard Günther then asked the Sinologist Engelbert Kronthaler,

*"When did the Chinese consciously decide against the introduction of alphabetic writing?"*

Kronthaler answered this question some years later at 28.3.1979.

His answer was published in *semiosis*, 1980 in German language.

## SUMMARY

"The point at issue is G. Günther's question as to when the Chinese consciously decided in favour of visual script and against phonetic script. Alphabetical and ideogram scripts are not only various steps of development of script, they are two types, each on the pinnacle of different lines of development. The alternative phonetic script/visual script reflects the different world view of West/East, speech/script. In both, the relationship speech/script is equally evident, it is however subject to a different primacy. The conversion from the one to the other would be more than just a change of script, of apparatus, it would essentially be the change of conception, would be connected with the abandonment of the other, and would, therefore, as a whole be a reduction of complexity which must be rejected." E. Kronthaler

## Chiastic Dynamism

Gunther understands the universe as a *"complexion of temporal character, in which an identity develops into a counter-identity"*.

In contrast to the Heraklitian dynamism the Chinese dynamism is complex, parallel, concurrent, co-creative, i.e., chiastic. It is not only connected with temporality in the Western sense of *linear time*, but with space and spacing (making space). And this is exactly what Gunther is developing. In his lifelong search to incorporate time into logic (and arithmetic) he was forced to offer time its own space, i.e., time needs an own structural locus.

Otherwise, time is ontologically subordinated to Being and Nothingness.

Loci are not in the mind (of a thinker), they are in the world. The mind is occupying only one locus in this grid of loci.

The big difference of Gunther's approach to chiastic dynamism or *dialectic cosmology* to other approaches lies in the fact that he tried and partly succeeded to implement it into *operative formalism*. Without that it would be something like a continuation of the tradition of notional narratives.

The French philosopher Alexandre Kojève told me, when I was driving him in West-Berlin with my Italian car to his hotel, that everything to be said had been said. The only thing to do now is to do something now. I tried to confront him with the mathematics of the Gödel proof. But this was obviously not good enough, probably because it was also only a book, again.

## Next epoch

In doing so, the universe necessarily has to pass through an epoch of ontological identity weakness. Which was, after Gunther, the Western epoch.

This epoch is defined by Western philosophy, science, technology and economy based on *alphabetism*.

There are good reasons to think that this epoch has come to a *closure*.

Gunther is not saying in his letter that the next epoch will be necessarily Chinese. But he says that the Chinese thinking, mediated by its script, has an "*identity strength*" not existing in the Western world. But China has not (yet) developed an operativity corresponding to the complexity of its writing paradigm. This kind of operativity is proposed by the Guntherian project of a "negative language".

We shouldn't suppress the thought that a form of intelligence, not bounded and restricted by *terrestrial conditions* and able to communicating with human beings, would probably possess a more stable "identity strength" than any terrestrial cultures.

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(blog-test version)

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posted by Rudolf | 2:14 PM | 4 comments [links to this post](#) 

SUNDAY, SEPTEMBER 24, 2006

## “道可道非常道，名可名非常名”

老子《道德经》第一章说：

"道可道非常道

名可名非常名

無名天地之始有名萬物之母

故常無欲以觀其妙

常有欲以觀其徼（音：較）

此兩者 同出而異名 同謂之玄

玄之又玄 眾妙之門"

"道可道非常道，名可名非常名"，解释为"世界是可以被解释为道

即规律的，但规律不是不变的；事物的概念是可以定义的，但定义不是不变的"。这是中国古代科学思想跟作为西方和现代科学技术起源的古希腊思想的根本区别。古希腊思想后来发展出了以公理化系统为特征的科学思维方法体系，公理化是形式逻辑体系的最后完成形式，是整个工业化科学技术辉煌成就的基础之一，另一个基础是系统的科学实验。

然而，后工业化的所有科学技术成就实际上是建立在两条基本科学原理之上的，而这两条原理都是关于人类

认识能力的否定性的断言。

第一，海森堡的测不准原理；

第二，歌德尔的不完备定理。

第一原理是说准确地测量物理量是不可能的！第二原理是说构造完备无矛盾的体系是不可能的！这实际上是否定了工业化科学技术成就赖以建立起来的思想基础和技术基础。这又一次验证了古老的逻辑——“事物的发展本身孕育着否定自身的因素”。后工业化时代的科学技术的起点好像是从中国古代哲学家开始的地方开始的。

最重要的问题是在各个传统科学技术领域里尝试新的方法，以及开创新的科学技术领域，创建“新科学”、“新数学”。“名可名非常名”已经有了一个非常贴切的实际的例证，Python和Ruby中的变量和函数都不是预先声明的，而是在实际的应用环境中（Context/Contexture）动态地获得的，这就违背了形式逻辑的基本原则和要求！模块和软件的功能以及待要实现的任务在分布式计算环境中是被动态地分配给多个CPU处理的。

posted by Rudolf | 7:51 PM | 0 comments [links to this post](#) 

MONDAY, SEPTEMBER 18, 2006

## Temporal Structures in Chinese Mathematics

### Time and Methodos

The temporal structure of Chinese mathematics appears in at least two ways. One is its embedding into the well known cosmological and ontological dynamics which says the world is in a permanent change.

The second has a more a "praxeological" form and is discovered by an "ethno-methodological" approach to history. Jinmei Yuan is emphasising in her study *"The role of time in the structure of Chinese logic"* the double structure of temporality in the paradigm of Chinese Maths as the "now"-structure" of methodology and the dynamics of Ancient Chinese world-view.

Both should be understood as strictly different from the Greek approach of time and methodos as following a pre-given path/way.

From Ancient Greek μέθοδος (*methodos*) "pursuit of knowledge, investigation, mode of prosecuting such inquiry, system", from μετά, μέθ- (*meta, meth-*) "in the midst of, among, between, in common, along with, by aid of" + οδός (*odos*) "way, motion, journey".

But instead of denying the possibility of formalisms by Heraklit (panta rhei) and the dialecticians up to Hegel and dialectical materialism, the "now"-approach of Liu Hsiu shows an exciting possibility to do maths independently of axiomatics with its eternal truth and pre-given methodology (axioms+rules).

A striking similarity to the now-strategy is realized in *ConTeXtures*, a dynamic polycontextural programming language, I started a few years ago. The first step there is: *design horizons!* That means, the now tells, by analysis and experiences, situational, with which complexity and complication the method/strategy has to "start". A first sketch to

model complex time-structures for programming can be found at:

[www.thinkartlab.com/pkl/lola/From Ruby to Rudy.pdf](http://www.thinkartlab.com/pkl/lola/From%20Ruby%20to%20Rudy.pdf)

[www.thinkartlab.com/pkl/lola/ConTeXtures.pdf](http://www.thinkartlab.com/pkl/lola/ConTeXtures.pdf)

The question is not which philosophy mathematicians are supporting but what exactly are they doing when they are doing mathematics? Hence, *how* are they *doing* math is the question. This maybe called a "praxeological" or "ethnomethodological" approach (Garfinkel, Livingston). This, obviously, is in sharp contrast to ideology critical contemplations.

<http://cseclassic.ucsd.edu/users/goguen/pps/real.pdf>

## **A Western Summary of the Principles of Chinese Thinking**

*by Kaiping Peng, Richard E. Nisbett*

*Chinese ways of dealing with seeming contradictions result in a dialectical or compromise approach— retaining basic elements of opposing perspectives by seeking a "middle way." European-American ways, on the other hand, deriving from a lay version of Aristotelian logic, result in a differentiation model that polarizes contradictory perspectives in an effort to determine which fact or position is correct.*

### **Principle of change (Bian Yi Lu).**

*This principle holds that reality is a process. It does not stand still but is in constant flux. According to Chinese folk belief, existence is not static but dynamic and changeable. At the deepest level of Chinese philosophical thinking, "to be or not to be" is not the question because life is a constant passing from one stage of being to another, so that to be is not to be, and not to be is to be. Because reality is dynamic and flexible, the concepts that reflect reality are also active, changeable, and subjective rather than being objective, fixed, and identifiable entities.*

### **Principle of contradiction (Mao Dun Lu ).**

*This principle states that reality is not precise or cut-and-dried but is full of contradictions. Because change is constant, contradiction is constant. Old and new, good and bad, strong and weak, and so on, co-exist in everything.*

*One of the first mandatory books for literate ancient Chinese was the Yi Jing /I-Ching (The Book of Changes), in which the principle of contradiction is clearly expressed. For example, its basic theme is that the world is simply a single entity, integrated over opposites.*

### **Principle of relationship or holism (Zheng He Lu)**

*This principle probably constitutes the essence of dialectical thinking. It is a consequence of the principles of change and contradiction. It holds that nothing is isolated and independent, but everything is connected. If we really want to know something fully, we must know all of its relations -- how it affects and is affected by everything else. Or, to borrow a slogan from Gestalt psychology, the whole is more than the sum of its parts. Anything regarded in isolation is distorted because the parts are meaningful only in their relations to the whole, like individual musical notes embedded in a melody. [..]*

*The three principles of Chinese dialectical thinking are related. It is because of change that contradiction becomes inevitable; it is because change and contradiction are inevitable that it is meaningless to discuss the individual part without considering its relationships with other parts.*

**CULTURE, DIALECTICS, AND REASONING ABOUT CONTRADICTION**

*Kaiping Peng, Richard E. Nisbett*

[www-personal.umich.edu/~nisbett/cultdialectics.pdf](http://www-personal.umich.edu/~nisbett/cultdialectics.pdf)

A discussion of the text is:

Brian Huss, *Cultural differences and the Law of Noncontradiction: some criteria for further research*, *Philosophical Psychology*, Vol. 17, No. 3, September 2004

[www.tc.umn.edu/~huss0052/CPHP\\_17\\_3\\_03LORES.pdf](http://www.tc.umn.edu/~huss0052/CPHP_17_3_03LORES.pdf)

Some general informations about Cultural Geography:

<http://www.apa.org/monitor/feb03/intelligence.html?>

Brian Huss:

*It is extremely difficult to provide a non-circular justification for the LNC (Law of Non-Contradiction), and yet the LNC seems to act as a basic standard for reasoning in the West. If non-Western cultures do not believe the LNC holds, then meaningful cross-cultural discussion and debate will be very difficult, to say the least. In this paper it is argued that the distinction between belief and acceptance is important in analyzing cross-cultural studies on the way people reason. [...] The distinction between belief and acceptance is used to demonstrate that the empirical data currently available fail to show that the LNC is not a universal of folk epistemology.*

As a Westerner I have the feeling of reading a Western compilation about Chinese thinking (world-view, logic, ontology). I will not enter this discussion because too many assumptions are made which have to be questioned. Maybe, American sociologists never have heard anything in the line of Heraklit, Hegel, Marx, Piaget and other Western dialecticians. As a base for educational and political consultation it seems to me extremely blind and hegemonistic.

Thus, I will start with only one simple question.

Obviously, my question will not deal with the problem if there is a contradiction for a Chinese farmer *to be or/and not to be* in the possession of \$1000.-

## **What do we mean with "contradiction" (矛盾)?**

I remember reading German, French and English translations of Mao Tse Tung's study "*On Contradiction*". Most of his examples showed me that the term "contradiction" is misleading. The examples for contradiction are: polar, opposite, antagonism, struggle, etc. and logical contradiction was only a part of it.

*"Contradiction and struggle are universal and absolute, but the methods of resolving contradictions, that is, the forms of struggle, differ according to the differences in the nature of the contradictions. Some contradictions are characterized by open antagonism and others are not. In accordance with the concrete development of things, some contradictions, which were originally non-antagonistic, develop into antagonistic ones, while others which were originally antagonistic develop into non-antagonistic ones."*

*"On Contradiction" (August 1937), Selected Works, Vol. I, p 344.*

<http://www.rrojasdatabank.org/mao11.htm>

Mao's explanation is not easy to accept for non-dialecticians. First for Western philosophy and science there are no contradictions in the universe at all. Second, Mao's definition is in itself contradictory. If contradictions are "*universal and absolute*", how do we have to understand the "*but*"? And the "*absolute and universal*" is changing all the time?

Contradiction as a self-referential term, *but* not in Aristotelian logic. Neither in *paraconsistent* logics.

Then I learnt that the Chinese ideogram for contradiction, 矛盾, has absolutely nothing to do with the Latin *dictio* and *contra-dictio* (speech and contra-speech). But

about *spear*(矛)+*shield* (盾). Later I was told that there are not only two fighters with their spear+shield in a fighting position, but that the ideogram goes back to the hieroglyphs for *sun* and *moon*.

Not only that we are far away from any phono-logical terms of contradicting and contradiction with its *logos*-based duality of true and false, the structure of a fight between two fighters is not dual but 4-fold: 2 positions with spear+shield, i.e. in fact, spear vs. shield + shield vs spear.

And this is exactly the *chiastic structure* of change. Thus, change is not a simple continuous floating Heraklitian flux but an interplay between different qualities.

In other words, the 3 principles mentioned above appear as a complex interacting pattern; "contradiction" and "change" are "one". Hence, the "speech act" of contradicting in a opponent/proponent game is a very small and specific layer, (for lawyers at court), of a "shield-盾+spear-矛"-interaction.

Therefore, I very much prefer the approach of studying what exactly Ancient Chinese mathematician *did* when the *practiced* mathematics.

An important step to this kind of studies is done by Jinmei Yuan.

<http://ccbs.ntu.edu.tw/FULLTEXT/JR-JOCP/jc106031.pdf>

## The Jinyou-Strategy of Chinese Math

*"Chinese logicians in ancient times presupposed no fixed order in the world. Things are changing all the time. If this is true, then universal rules that aim to represent fixed order in the world for all time are not possible."*

This sounds familiar to Heraklitian philosophy and the Western understanding of Chinese world-view. But suddenly there is something surprisingly different:

*"Chinese logical reasoning instead foregrounds the element of time as now. Time, then, plays a crucial role in the structure of Chinese logic."*

Because of the "mutual relations" and "bi-directional" structure of Chinese strategies I think the time mode of "now" is not the Western "now" appearing in the linear chain of "past–present–future". To understand "now" in a non-positivist sense of "here and now" it could be reasonable to engage into the adventure of reading Heidegger's and Derrida's contemplation about time. This seems to be confirmed by the term "*happenstance*" (Ereignis) which is crucial to understand the "now"-time structure.

The praxeological analysis discovers the patterns of "problem solving" before/beyond axiomatic deductions, i.e., beyond the linear pathway from problem to solution under an invariable method.

*"To uncover the logical structure and presumption in Chinese mathematical art, I would like, first of all, to call attention to a few important and interesting features of the Nine Chapters:*

- 1. None of the mathematical terms in the Nine Chapters have a given **definition**.*
- 2. No **demonstrations** between a given problem and an answer are offered.*
- 3. The 246 problems in the Nine Chapters mostly begin with the phrase Jinyou, which means **"Now, there is . . ."***

*Jinyou is a general way to form patterns in the Nine Chapters.*

*Second, I would like to briefly summarize the **patterns** according to which the mathematical problems in the Nine Chapters are organized:*

Pattern 1:

Now, there is ( jinyou) . . . Tell ( qiu):

Answer ( da):

Art/Method ( shuyue):

Pattern 2:

The name of an art/method ( shu) or a rule ( fa)

Art/Method ( shuyue):

Now, there is ( jinyou) . . . Tell ( qiu):

Answer ( da):

Art/Method ( shuyue)

Pattern 3:

Now, there is ( jinyou) . . . Tell ( qiu):

Answer:

Art/Method:

Another art/method:

Another art/method:

Another art/method:

### **Jinmei Yuan's comment**

*The first phrase here is "Now, there is . . ." ( jinyou).*

*If one takes a close look at the above pattern, one can easily see that "time" plays an important role in each mathematical problem-solving procedure. Almost all of the problems in the Nine Chapters start with the assumption, "Now, there is . . ." (jinyou), which is a good starting point for us to explore the logical space in these patterns.*

*To the extent that the time, "now" ( jin), is involved, the problems in which Chinese mathematicians are interested are particular ones, such as those that arise during a face-to-face conversation in the present.*

*In other words, Chinese logical space is structured in the time, "now." Chinese people are only concerned with the logical relations that exist in the present practice, not something beyond the present time, such as "universal truth."*

### **The relevance of happenstance (Ereignis)**

*"The phrase jinyou is crucially important to understanding the patterns in the Nine Chapters. Having discussed the role of time, the now ( jin), in the patterns, the meanings of you in the phrase of "now, there is . . ." (jinyou) should be clarified.*

*The character you in Chinese means that a **happenstance** exists or shows itself, or that something is possessed. The original character you is written in such a way that the top part is a hand and the bottom part is a moon.*

*In the Shuo Wen, an early Chinese lexicon, Xu Shen says, "You is the thing that does not always exist. Spring and Autumn has an explanation: [for example,] the happenstance of a solar eclipse or lunar eclipse."*

*It is clear that you in the Nine Chapters does not hold the meaning of something that is given by mathematicians theoretically, but that it means a concrete problem that occasionally exists as a special event, in a particular time and space.*

*If one holds the presumption that there is a fixed order in this world and that things have their stable positions, then the notion of "given a problem" or "given a rule" can make sense in mathematical reasoning."*

*"Happenstance is the meeting between two strangers who have never met before, normally in a completely random situation."*

<http://en.wikipedia.org/wiki/Happenstance>

## Jinmei Yuan concludes

"Chinese mathematical art aims to clarify practical problems by examining their relations; it puts problems and answers in a system of mutual relation—a yin-yang structure for all the things in a changing world. The mutual relations are determined by the lei (kind), which represents a group of associations, and the lei (kind) is determined by certain kinds of mutual relations."

posted by Rudolf | 1:57 PM | 0 comments [links to this post](#)

SUNDAY, SEPTEMBER 17, 2006

## 中国数学中的构造主义...

中国古代数学不是基于形式逻辑的,而是基于一种构造主义、操作主义和组合学的,更重要的是对对象的位置操作,要发现一个幻方,就像是操作一个置换群一样。这点跟古希腊完全不同。

將1~9填入下方九個方格中,使得每行、每列及對角線之和皆相等。這就是著名的魔方陣了。

那麼要怎麼做呢?根據楊輝《續古摘奇算經》(1275年)的記載,

九子斜排 上下對易 左右相更 四維挺進  
戴九履一 左三右七 二四為肩 六八為足

九子斜排 上下對易 左右相更 四維挺進

接下來則是

戴九履一 左三右七  
二四為肩 六八為足

這就是楊輝魔方陣的原理了,如果按照現在的解釋應做如是想法:

### 1. 求出這個共同的和是多少?

$$1 + 2 + 3 + \cdots + 9 = 45$$

$$45 \div 3 = 15$$

### 2. 決定中間那格為何數?為何是5?

1~9中,任取三數相加為15有八種情況:

$$1 + 5 + 9 = 15 \quad 2 + 5 + 8 = 15$$

$$3 + 5 + 7 = 15 \quad 4 + 5 + 6 = 15$$

$$2 + 4 + 9 = 15 \quad 3 + 4 + 8 = 15$$

$$1 + 6 + 8 = 15 \quad 2 + 6 + 7 = 15$$

在這八種情況中5出現四次,2、4、6、8各出現三次,

1、3、7、9各出現二次,對應到方格,我們發現中間那格共有1行1列及兩對角線通過四個角落各有1行1列及一對角線通過剩餘四格僅有1行1列通過所以將5填入中間那格,2、4、6、8填入四個角落

(2、5、8成一直線or 4、5、6成一直線)

再將1、3、7、9填入適當的剩餘四格中。

posted by Rudolf | 8:33 PM | [1 comments](#) [links to this post](#) 

SATURDAY, SEPTEMBER 16, 2006

## Beyond Fears and Denials

### Why should we be inspired by ancient number theory?

Today, it is nearly impossible to imagine another paradigm of numbers than what we are taught at school and are experiencing in everyday life. But also academic mathematical studies of number theory, despite its enormous complexity, is based on the classic concept of natural numbers. It is not well known that even proper axiomatizations of the system of natural numbers (Peano Arithmetic) have failed to characterize the system of natural numbers up to concreteness. Despite of the conceptual gaps left, there are no serious attempts to liberate the concept of natural numbers from its modern historical determination as a series of linear ordered elements. There exist many logical systems, different to classic logic, but more or less no arithmetical systems which could be considered as non-classic (heterodox, deviant, alternative, etc.) like the logical systems.

#### Refutation by fear

There are only a very few attempts to develop radically new ways of thinking and computation. One of such an exception is given by the work of the philosopher and cybernetician Gotthard Gunther. He stated that his experiences shows him that there is a deep existential and emotional defence in Occidental thinking to accept an involvement into new thoughts concerning the foundations of logic and arithmetic and mathematics. Such new thoughts are not proven wrong but are simply rejected and denied by the fear to face and encounter new and unknown possibilities of thinking. Also such projects may be rooted in attempts of a new understanding and interpretation of Ancient experiences and knowledge, the emotional refutation is irreconcilable.

Thus, a historical understanding of the development and limits of our thinking in science and technology could be of help. World-views and paradigms of thinking appear to be enclosed by historical epochs. In his propaganda of global revolution, Joseph Stalin made it clear that their is a holy exception: mathematical sciences are neutral, i.e. class and *history independent*, especially mathematics of numbers. With logic, the case was more difficult because of the dialectics of Hegel/Marx. But there was a clear cleansing too: dialectics are beyond any formalism.

Today, there will even a math-gene be found and some math-neurons proving the inherent and innate natural human character of arithmetic and logic. Others will conceive a more spiritual explanation.

James R Hurford, The Neural Basis of Predicate-Argument Structure

<http://www.ling.ed.ac.uk/~jim/newro.htm>

#### Few new approaches

Nevertheless, new approaches are appearing, more or less despite academic prohibitions, in mathematical sciences, trying to surpass the monocontextuality of classical thinking: *polycontextuality* (Gunther), *ultra-intuitionism* (Yessenin-Volpin), *poly-mathematics* (Arnold) and the idea to a theory of *n-categories* (Baez). But all those attempts are grammatically based on a classic understanding of semiotics and its alphabetism. The only exception I know, is proposed by the few sketches of Gunther's *kenogrammatics*.

## Transitions from Pythagoras to Aristotle and back?

"The access to pluri-dimensionality and to a delinearized temporality is not a simple regression toward the "mythogram"; on the contrary, it makes all the rationality subjected to the linear model appear as another form and another age of mythography.

The meta-scientificity which are thus announced within the meditation upon writing can therefore be no more shut up within a science of man than conform to the traditional idea of science. In one and the same gesture, they leave man, science, and the line behind." Jacques Derrida, *Of Grammatology*, p.84

The ultimate cultural revolution which happened in Ancient Greece was the strict separation of the numbers as figurative, geometric, speculative, esoteric, thus Ancient, and numbers as ordinary objects of calculation and contemplation in science and the empirical, economic world, thus modern. The ancient Pythagorean approach was denounced as archaic and mythical. Not suitable for calculation. Aristotle has done proper work in cleaning up the

scenario. Even today it is difficult to understand his trick: his refutations are based on a logic he just introduced. A logic which in its restriction has no applicability and reasonability for the Ancient paradigm of thinking. Thus, to show a contradiction in Pythagorean number theory is simply a *red herring*. Figurative numbers have successors and – *neighbors*. But that is utter nonsense if we just have postulated the principle of linearity of natural numbers.

There is not much written evidence from Pythagoras, he even cultivated "deep silence", meditation. In his powerful and detailed denial, Aristotle has drawn a picture of

Pythagoreanism we can read now in two directions: pro-

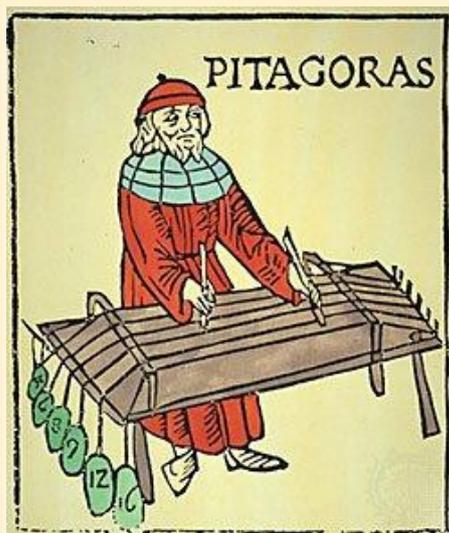
Pythagorean and pro-Aristotelian.

enter: Aristotle, *Metaphysics*, book XII, XIII.

<http://www.britannica.com/eb/art-75247>

### Aristotle's trickery

Pythagorean arithmetic insisted on the systematic *exclusiveness* of the number four, used in their technique of the *Tetractis* ("counting by the principle of four"). It can only be a bad joke of Aristotle to presume that the Pythagoreans could not calculate further than to the number four. Because he has known this was wrong he constructed a logical contradiction in the Pythagorean number theory between the finiteness of the *Tetractis* and the infiniteness of counting numbers; simply by presuming that both number systems must be identical. He didn't accept the difference between *counting* numbers and Pythagorean conceptual *category* numbers as scientifically relevant. With this voluntary *decision*, for which there is no proof, he introduced the principle of the *uniqueness* of the serie of natural



numbers. Today, we are restricted to the conceptual number *two*: dualism, binarism, digitalism, two-valuedness, etc. But this seems not to be a restriction but a taboo. The revolution happened for general economic reasons. Its justification was given by its general success. Today we are trapped in this paradigm which has started to turn against its own legitimation. It's time to study the transition which established Aristotelian thinking. Its merits and its sacrifices.

### **Pluri-dimensionality**

*Figurative* numbers are finite, qualitative, cosmic and related to the soul.

*Mathematical* numbers are infinite, formal and related to empirical reality. Figurative numbers are *pluri-dimensional*, arithmetic numbers are one-dimensional.

*"Thus peculiar dialectic situation is produced for the earthly thinker. He has the choice of interpreting the Peano sequence of numbers as an ultimate dilution of the orders of esoteric numbers to a degree where they become unfit for the representation of philosophic problems and where they are only good for showing money amounts in cash registers or temperature grades on the scales of thermometers and for similar trivial tasks. But we can also look at them as the material from which we build up orders of esoteric numbers starting from systems with minimal complexity to ever increasing structures of higher order. This produces a scale that proceeds from finitude to finitude! An infinite system of esoteric numbers is inconceivable. If trying to think it we cannot help but apply the numbers of the Peano sequence - which means: we drop out of the realm of metaphysics." Gotthard Gunther, Number and Logos*



## Thus, in what exactly is such a profound fear rooted?

The deep fear, expressed by many scholars and politicians, is this: if we abandon the principles of linearity and hierarchy in arithmetic, logic, deduction and computation we end in *chaos*. That is, we naturally will lose our human dignity. Positively, this situation is collected in a beautiful text by Philip Wadler.

"Whether a visitor comes from another place, another planet, or another plane of being we can be sure that he, she, or it will count just as we do: though their symbols vary, the numbers are **universal**. The history of logic and computing suggests a programming language that is equally natural. The language, called lambda calculus, is in exact correspondence with a formulation of the laws of reason, called **natural** deduction. **Lambda calculus** and natural deduction were devised, independently of each other, around 1930, just before the development of the first stored program computer. Yet the correspondence between them was not recognized until decades later, and not published until 1980. Today, languages based on lambda calculus have a few thousand users. Tomorrow, reliable use of the Internet may depend on languages with logical foundations."

<http://homepages.inf.ed.ac.uk/wadler/topics/history.html#drdobbs>

More at: [http://www.thinkartlab.com/pkl/media/SUSHIS\\_LOGICS.pdf](http://www.thinkartlab.com/pkl/media/SUSHIS_LOGICS.pdf)

Was Pythagoras and the Ancient Chinese mathematicians, to mention only this two, pre-humans? And would we fall back to a pre-human level of consciousness if we would give up to believe in the ultimate universality of mono-contextuality? Or do we have to transmute to trans-humans, or even to an *Übermensch* (super-human) like in Nietzsches Zarathustra? This, with involving all the theological hybris?

Whatever it may be.

Even if this world-view may be *ultimate*, *universal* and *natural* for human thinking, today, we are in big troubles with its narrowness and limited conception of hierarchic thinking and computing.



One serious fear to leave the paradigm of linearity and hierarchy for formal and operative reasoning and computation is the believe that the only alternativity to linearity is circularity. And circularity is not only producing antinomies and paradoxes but was the pattern of Ancient, non-operative thinking. The fear is well justified. "Circular" thinking brought it up to the informational feedback loops of Cybernetics and to its "post-modern" version of Second-Order Cybernetics with its metaphor of Uroboros and criculus creativus. But not to a working new paradigm of hard science.

The opposite or complementarity to hierarchy is not given by a simple regression to circularity but needs a complex interplay between *hierarchies* and *heterarchies*. Such an interplay can not adequately be represented by a singular metaphor or model. Its realizations are embedded in the dynamics of an interacting complementarity of metaphors, models, paradigms of conceptualization and computation not accessible to classic scientific thinking.

## Computing paradigm for the 21st century

Problems of *interactivity* and *reflectionality* of computing systems are not covered by classic models of computation like Turing Machines. Such a paradigm is modeled along the line of calculation and algorithms. Both are closed systems without any interaction and reflection while computing. Obviously, they are based on the linearity of the arithmetic of natural numbers, or more generally on the linearity of algorithmic sign systems, i.e. formal (programming) languages.

But, say, the Internet is not an algorithmic problem solving system. Locally, there are many programs solving specific problems, but the system as a whole, globally, it is not solving a single problem. It is an interactional service system – without beginning nor ending.

Peter Wegner is emphasizing this new situation and has developed important work to its conceptualization. A new distinction is introduced: abstract algorithmic computation vs. empirical situational interaction.

*"The interaction paradigm provides a new conceptualization of computational phenomena that emphasizes interaction rather than algorithms. The recognition that these characteristics are inherently outside the traditional conceptualization of computation is the basis for this new paradigm for computing, built around the unifying concept of interaction. Concurrent, distributed, reactive, embedded, component-oriented, agent-oriented and service-oriented systems all exploit interaction as a fundamental paradigm."*

*Peter Wegner's claim (CACM, May 1997) that "interaction is more powerful than algorithms" challenges our fundamental assumptions about the nature of computation and the notion of computational problems, reinterpreting the Church-Turing thesis without attacking it directly. This claim is an open invitation to researchers to develop models, tools, and methods that can lend credence to it. Since then, pervasive/ubiquitous computing – which epitomizes interaction – has been proposed as the leading computing paradigm for the 21st century."*

<http://www.cse.uconn.edu/cse/finco05/#panel>

With such an interactional approach, referring to situational real world events, like *"driving home from work"*, problems of formalization beyond classic abstract algorithms are arising. But *modeling* the *intuition* of the new situation is not yet delivering a working *formalism* for computation. Interactional computation as a new empirical paradigm needs a mathematical framework which is surpassing the limits of encapsulated linearity. Maybe we should understand that Ancient number theory, Pythagorean and Chinese, is positioned before the distinction of formal/material, abstract/empirical, subjective/objective and computable/non-computable. Such a pre-/trans-scientific paradigm would involve, from the very beginning, interactional subjectivity into the game of its formalisms and operativity.

## Chances to learn from the past

*"The author himself confesses that if somebody - before he had the good fortune of knowing McCulloch - had suggested that in Metaphysics we require numbers in order to understand ideas instead of saying that ideas are necessary to understand numbers he would have more or less politely changed the topic."*

*It took a McCulloch to show him that it had been the tragic fate of Western civilization to permit the concept of the idea to gain metaphysical precedence before number and that*

*from this very choice the fateful split between sciences and the humanities had resulted."*  
Gotthard Gunther, *Number and Logos*

### **Was Pythagoras Chinese?**

Citations from: Jinmei Yuan, Exploring the logical space in the patterns of classical Chinese mathematical art.

"The beauty of Chinese mathematical arts is, to some degree, similar to the *beauty* of poetry; it requires the *participation of subjects*."

"Chinese people are only concerned with the logical relations that exist in the *present practice*, not something beyond the present time, such as "universal truth.""

"The logical reasoning of kind (lei) can be described as a *net*, which represents the main characteristic of Chinese logic."

"My standpoint is that Chinese mathematicians' reasoning was based on a very different presumption. The presumption in the Euclidean tradition is that there is a fixed order in this world, and the goal of doing mathematics is to represent the beauty of this rational order. The presumption of the Chinese mathematicians is that *there is no fixed order in this world*. For them, things are changing all the time. Following this presumption, any universal rule, which aims to represent the fixed order in the world, is not important, or for that matter, even impossible. The mathematical art in Chinese culture is akin to conversational reasoning."

*"The logic that Chinese mathematicians followed in this kind of conversational reasoning deals with the relations among particulars in present practice. The aim of this kind of reasoning is to represent the harmony of relations among particulars at the moment."* Jinmei Yuan

<http://ccbs.ntu.edu.tw/FULLTEXT/JR-JOCP/jc106031.pdf>

To teach Chinese students Aristotle can have a double function: to learn about the world-view of Western logic, ontology, semiotics, etc. and to learn against which Ancient thinking it was established and which means had been developed to do it. It could be an exiting possibility to compare Pythagoreanism with Ancient Chinese thinking. Grammatologically, both are not based in the medium of alphabetism.

posted by Rudolf | [3:18 PM](#) | [0 comments](#) [links to this post](#) 

MONDAY, SEPTEMBER 11, 2006

## **Negative Ecology of Sign Systems**

### **Die Ressourcen des Denkens**

Das Denken vollzieht sich im Medium des Zeichengebrauchs. Die Semiotik als formalisierte Theorie des rationalen Zeichengebrauchs kennt nur die abstrakte Verknüpfung (Konkatenation/Substitution) von vorgegebenen Zeichen eines (beliebigen, endlichen oder

unendlichen) Zeichenrepertoires, das allerdings formal auf zwei Elemente (Atomzeichen und Leerzeichen) reduziert werden kann. Das Zeichen als Zeichengestalt trägt sich im Denken aufgrund der Trägerfunktion der Materialität des Zeichenereignisses. Die Differenz von Zeichengestalt und Zeichenvorkommen kommt in der Semiotik selbst nicht zur Darstellung; sie ist ihre verdeckte Voraussetzung.

Die Zeichengestalt verbraucht sich nicht im Gebrauch ihres Ereignisses. Der Modus der Wiederholung des Zeichens ist abstrakt und gründet sich auf der Abwesenheit des Subjekts und der Annahme der Unendlichkeit der Ressourcen (Raum, Zeit, Materie).

[...]

Der Alphabetismus findet in seiner letztlichen Digitalität und Linearität multimedial zu sich selbst und zu seinem Abschluß in der Objektivation seiner vermeintlichen Vernetzung. Die Graphematik bewegt den Übergang der Inskription zur Ermöglichung einer nachschriftlichen und trans-terrestrischen Epoche des Welt-Spiels.

Kaehr, Proömik und Disseminatorik, 1995

## **Translation**

*Thinking is realizing itself in the medium of the use of signs. Semiotics as the formalized theory of rational use of signs knows only the abstract linkage (concatenation/substitution) of given signs (finite or infinite) of a sign repertoire, which however can be formally reduced to two elements (atomic sign and blank) only.*

*In thinking, the sign as sign type carries itself due to the carry function of the materiality of the event of sign tokens. The difference of sign type and sign token (occurrence) itself is not reflected in semiotics; it is its covered condition.*

*The sign type does not use (consume) itself in the use of its event. The mode of iterability of the signs is abstract and based on the absence of subjectivity and the assumption of the infinity of resources (space, time, matter).*

## **About sign systems**

### **Elementary signs**

*„Elementary signs are signs that we shall consider as not having parts. The content of this concept depends upon the conventions that are assumed. [...] In simultaneous consideration of any two elementary signs, we determine whether they are the same or different. These concepts are also conditional.“*

### **Abstraction of identification**

*"The possibility of determining when two elementary signs are the same permits us, applying an abstraction of identification, to speak of two identical elementary signs or of one and the same elementary sign. On this basis, we introduce the concept of an abstract elementary sign, that is, of an elementary sign, considered up to identity.*

*Concrete elementary signs will be considered as representatives of the corresponding abstract elementary signs. Two concrete elementary signs represent one and the same abstract elementary sign if and only if they are identical."*

## Abstract alphabets

"Lists of elementary signs are called alphabets. We shall call two alphabets equal if every elementary sign appearing in the first alphabet is identical with a certain elementary sign appearing in the second alphabet, and conversely. Alphabets considered up to equality will be called abstract alphabets."

## Potential realizability

"Another abstraction, (...), is abstraction of potential realizability. This consists in departing from real limits of our constructive possibilities and beginning to discuss arbitrarily long abstract words as if they were constructible. Their realizability is potential: their representatives could be practically realized if we had at our disposal sufficient time, space, and materials." A. A. Markov

## Ideality of Notational Systems

The abstractness of sign systems and their independence of real world conditions like space and matter, are brought one step further by Alfred Goguen's definition of *institutions* and *signatures* for programming languages.

To speak about alphabetism in formal systems, with its atomicity, linearity, iterability, and ideality is not forgetting the conceptual move from alphabets as sign repertoires to the more abstract, category theoretic concept of signatures of institutions.

"Institutions accomplish this formalization by passing from "vocabularies" to signatures, which are abstract objects, and from "translations among vocabularies" to abstract mappings between objects, called signature morphisms;

then the parameterization of sentences by signatures is given by an assignment of a set  $Sen(S)$  of sentences to each signature  $S$ , and a translation  $Sen(f)$  from  $Sen(S)$  to  $Sen(S')$  for each signature morphism  $f: S \rightarrow S'$ , while the parameterization of models by signatures is given by an assignment of a class  $Mod(S)$  of models for each signature  $S$ , and a translation  $Mod(S') \rightarrow Mod(S)$  for each  $f: S \rightarrow S'$ .

[...]

Satisfaction is then a parameterized relation  $\models_S$  between  $Mod(S)$  and  $Sen(S)$ , such that the following satisfaction condition holds, for any signature morphism  $f: S \rightarrow S'$ , any  $S$ -model  $M$ , and any  $S'$ -sentence  $e: M \models_S f(e)$  iff  $f(M) \models_{S'} e$

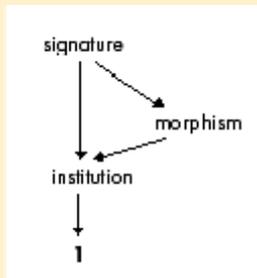
**This condition expresses the invariance of truth under change of notation."**

<http://www.cs.ucsd.edu/users/goguen/projs/inst.html>

Signatures are even better realizing *alphabetism* than sign repertoires because they are emphasizing the abstractness of alphabetical signs, that is, the ideality of signs, and sign systems, in contrast to the concrete occurrence of signs, independent of the content of the sign repertoire, i.e., the concrete notational material. Sign systems are not only characterized by atomicity, linearity, iterability, but also by *ideality*. Ideality is the medium of the realization of signs.

## Uniqueness of Semiotics

Despite the fact that semiotics, like institutions, have many realizations, they are conceived as being conceptually unique. There is, in principle, one and only one semiotics. As there is, in principle, one and only one (universal) logic. There may be many different semiotic or logical systems realizing special purposes.



In the *conceptual graph*, uniqueness (oneness) is marked as 1. The *trichotomy* of semiotics is ruled by the order relations between alphabet (signature), rules (morphisms) and semiotics (institution) based on 1.

The oneness of semiotics has its foundation in *mono-contextuality* as opposed to poly-contextuality.

## Negative Ecology

Today, we have to consider the *destructiveness* of sign systems. Technology, as realized in computing, is based on a sign-economy which is denying the limitations of its resources. By the application to real-world problems of understanding, organizing and computation, the abstractness of sign systems has become, after its deliberating function to human society, more and more an ecologically exploitative and destructive power. This might be a historical situation and might not to be the final paradigm of scriptural work. New notational systems, beyond alphabetism and not based on uniqueness, have to be invented.

posted by Rudolf | 8:05 AM | 0 comments [links to this post](#)

MONDAY, SEPTEMBER 04, 2006

### On Chinese Mathematics

"Chinese culture lack formalization system like as Euclidean geometry, the circumstance disadvantages modernization of Chinese sciences, as well as modernization of technology and industry. The role of Combinatorics in the age of computer-web-information is the same as the role of Euclidean geometry in Industrialization. According to Constructivism mathematics, we believe and accept one mathematical object does exist if and only if we can construct it or build it in practice. So only parts of knowledge that have devised from manipulating the integers are truthfully reliable! " Steve Han (Jinan, Shan Dong)

<http://hanxianping.blogchina.com/886414.html>

## Magic Square in Lo Shu

(1)."Magic Square occurred in Lo Shu of the ancient China.

I think that represents the core of Chinese culture: Constructivism, Combinatorics. But they never become main stream culture in China." Steve Han

The story of 'Lo Shu' is as follows:

*In the ancient time of China, there was a huge flood.*

*The people tried to offer some sacrifice to the 'river god'*

of one of the flooding rivers, the 'Lo' river, to calm his anger. However, every time a turtle came from the river and walked around the sacrifice. The river god didn't accept the sacrifice until one time, a child noticed the curious figure on the turtle shell. Hence they realized the correct amount of sacrifice to make.



<http://mathforum.org/alejandre/magic.square/loshu.html>

Legends attribute China prehistoric personality, Hsia Yu ( ) - he who tamed the Yellow River of floods ( ) to be the one who discovered the Lo Shu.

Yu saw some very interesting markings on the shell of a giant tortoise that emerged from the River Lo in Central China. This became Lo Shu.

<http://www.hiakz.com/loshu.asp>

Lo Shu, "scroll of the river Lo", dating as early as 2800 BC.

In Chinese, the square is known as Luo Shu (Simplified Chinese: 洛书; Traditional Chinese: 洛書; pinyin: luò shū; Literal: Luo (River) Book) or the Nine Halls Diagram (Simplified Chinese: 九宫图; Traditional Chinese: 九宮圖; pinyin: jiǔ gōng tú).

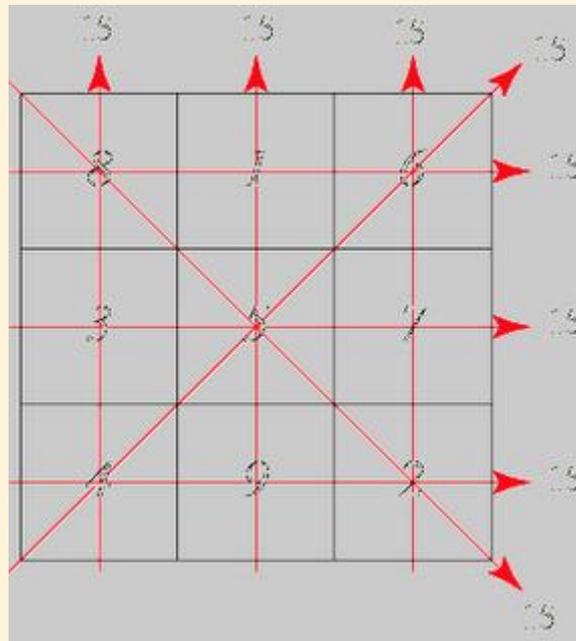
[http://en.wikipedia.org/wiki/Lo\\_Shu\\_Square](http://en.wikipedia.org/wiki/Lo_Shu_Square)

## Magic Square

A magic square is a square array of numbers consisting of the distinct positive integers 1, 2, ...,  $n^2$  arranged such that the sum of the  $n$  numbers in any horizontal, vertical, or main diagonal line is always the same number (Kraitchik 1952, p. 142; Andrews 1960, p. 1; Gardner 1961, p. 130; Madachy 1979).

Lo Shu is an associative magic square, but not a panmagic square.

(enter: Latin Square, Panmagic Square, associative Magic Square)



<http://mathworld.wolfram.com/MagicSquare.html>

# Chinese vs. Greek mathematics

The first thing to understand about ancient Chinese mathematics is the way in which it differs from Greek mathematics. Unlike Greek mathematics there is no axiomatic development of mathematics. The Chinese concept of mathematical proof is radically different from that of the Greeks, yet one must not in any sense think less of it because of this. Rather one must marvel at the Chinese approach to mathematics and the results to which it led.

Chinese mathematics was, like their language, very concise. It was very much problem based, motivated by problems of the calendar, trade, land measurement, architecture, government records and taxes. By the fourth century BC counting boards were used for calculating, which effectively meant that a decimal place valued number system was in use. It is worth noting that counting boards are uniquely Chinese, and do not appear to have been used by any other civilization.

[http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Chinese\\_overview.html](http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Chinese_overview.html)

## Axiomatic Method

Chinese mathematicians didn't develop axiomatic methods like the Euclidean axioms of geometry. It seems, that this, too, was based on a clear decision and not on a lack of mathematizing ingenuity. Chinese mathematicians had been introduced to Euclid by Westerners. They liked the concise presentation of the topics but didn't think to adopt it to their own methods.

The axiomatic method, as developed by Euclid, is based on the *evidence* into the "eternal" truth of the axioms and the *uniqueness* of the rules of deduction. Aristotle has given in his *Metaphysics* a decisive philosophical justification of this world-view. He defended it against the more mythological approach of the Pythagoreans which promoted a multi-dimensional number theory.

Only after Riemann's multi-dimensional geometry and, finally, by the *Limitation Theorems* of Kurt Goedel, this belief system was radically questioned.

Interestingly, in the 20th century China developed important work for automatic proof systems for geometry. While the West was more interested in automatic proof systems for logical systems.

## Art of Calculation

(2). "Chinese mathematical tradition is algorithmic." Steve Han

Chinese mathematics, was defined by Chinese in ancient times as the *"art of calculation"*(suan chu). This *art* was both a practical and spiritual one, and covered a wide range of subjects from religion and astronomy to water control and administration.

<http://www.crystalinks.com/chinamath.html>

In the West we are taught that the real difference between mathematics as an art of calculation and as a science started with the Greek mathematicians which contemplated numeric attributes not recognized by Babylonian-Egyptian mathematics, which remained on the level of an art&craft. Only with such an insight, independent on practical interests, like at

first, into the difference of *even* and *odd* numbers and their attributes for further manipulations, mathematics as a *scientific theory* was established.

But a first glance at the Lo Shu shows, that the distinction of even and odd numbers was recognized and used for practical and theoretical reasons long before.

## The Metaphor of Lo Shu

The Lo Shu Story is very interesting! I think it supports very much my ideas about the relationship of Chinese writing (logograms) and the design of new mathematics, maybe based on Morphogramatics.

The metaphor of Lo Shu seems to confirm that Chinese math is radically different from Greek math as we know it in Western mathematics.

1. First it is in a *written form*, thus it has to be read (and not heard), i.e., it has to be deciphered and this knowledge has to be translated into sentences, i.e., into spoken language and then interpreted.
2. This procedure is not happening to a single Genius, like a Eureka insight, happening in the mind and then translated into spoken language and from there to an inscribed and written form. What happens with Lo Shu is a *societal, co-operative* and *negotiating* interpretation of the inscription on the back of the turtle which has to be discovered.
2. It is *practical*. The calculation which happens after the "child", i.e., a member of the population, not a Genius, discovered the signs on the turtle, i.e., the magic square, is practical (and mythical, sacrifice for the river-god) bridging the gap between culture and nature to stop the flooding.
3. Thus, the sign on the turtle is in fact not a sign but a *topological logogram* (morphogram), a tabular matrix, a mathematical inscription. But there is no need to identify such a tabular inscription with the modern mathematical concept of a matrix.
4. The problem inscribed on the turtle is purely *combinatorial*, and not in any sense logical, or sentence-based. It is in this sense not a riddle. Also not pronounced by an Oracle, offered to the scholars to interpretation.
5. The "truth" of the Square is given by a the reading (collecting) of it from all possible points of view, i.e., from all positions of the counting process, the sum has to be the same, which is 15. This process is generating an *invariance principle* as the form of truth.
6. The way of the counting, represented by the chain of numbers, is for all positions different. Each point of view has its own *history* and *rationality*.
7. The final result, the number 15, is not depending on the view-points, but is invariant of the single approaches. It is producing a *collective mediation* of the different positions, and at

once generating societal collectivity. Also it appears as a final result, 15, the number is complex by the history of its construction. Each position has its own number 15. But a single result wouldn't convince the river-god. The convincing result is the *collective number* 15 as a result of mediation.

8. To each position, point of view, a *singular number system* can be attributed. Thus the result can be seen as a mediation, *harmony*, of different number systems. There is no information involved which would demand a unique number system like the modern linear arithmetic of natural numbers.

9. Also it is connected with numbers, the numbers are placed in a *tabular order*, square, grid, matrix and not linearly as a singular succession. The numbers are marked as *patterns*. Despite the strict positionality of the numbers, there is no zero sign involved.

There are many more interesting aspects in the story, like the fact that the turtle-matrix gives access to Nature. Thus, the writing is a bridge between human culture and nature. The turtle is considered as celestial. It is also producing time, societal time of the people involved. It is *local*, a gift for the specific river-god, but connected with a *global* cosmic insight. The Lo Shu is mediating local and global thematizations.

With this grammatological approach, I tried to avoid to map the Magic Square of Lo Shu to Western binary *digitalism* and *arithmetic* as it is usual today. Thus, in strict mathematical terms, the Lo Shu is not a Magic Square. Simply because it is not a mathematical matrix based on natural numbers. Such an interpretation of Lo Shu as a Magic Square is denying its specific Ancient concept of Numbers. This may have far reaching consequences in the context of interpretations of I Ching, Trigrams, Feng Shui and Yin&Yang.

## Chinese culture: Constructivism

Constructivism, in the West, is based on mathematical constructivism in the sense of Brouwer and Heyting. It is totally different from the Chinese Constructivism as suggested by the Turtle Metaphor. Western constructivism is based on a solitaire, mental, subjective insight in the nature of Numbers. It is based on subjective *intuition*. Only later, as a second step, the intuitions have to be written down; down from the mind to the paper. Today, to a computer program.

Therefore, Western constructivism lacks all the characteristics mentioned above: written, societal, negotiable, practical, combinatorial, tabular, dynamic, etc.

Constructivism in Western philosophy and cybernetics (*Second-Order Cybernetics*) is more speculative, involving some circularities, but is nevertheless very close to mathematical constructivism (intuitionism) and its problems with *solipsism*.

Constructivism, today, is very much supported by the needs of computer science.

FRIDAY, SEPTEMBER 01, 2006

## 《中国挑战：一个新猜想》

### ——对"中国挑战"说的一个注释

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翻译：韩宪平/Steve Han

来源：思维实验室

网址：www.thinkartlab.com

## "我们能从中国人没有教我们的地方学到什么？"——鲁道夫

主

流文化依赖于书写模式。民族的理性特质、他们的技术有效性、他们把社会组织起来、交流信息、以及他们的艺术科学等等这一切都跟书写模式分不开；人们在书写和创建自己作为典籍的文化实践中学会思维和生活。主流文化总是依赖于某种书写里包含的理性和技术模式。一般来说，书写是一种文化、政治和技术形成的最抽象的机制和技术（1）。

### ——欧洲的文化及第一次猜想

欧洲的文化依赖于字母书写和印度的零占位机制（2），这种机制使得算术、计算的经济合理、形式化和编程语言成为可能（3）。

莱

布尼茨提出第一个关于中国文字的猜想。他设想了一种"通用语言（4）"作为国家和人民之间沟通的可信赖的通信基础。他的这个想法类似于中国的象形文字，

中国象形文字通过典籍在不同口头语言之间起着桥梁作用。要实现这一梦想他发明了凝练的数字表示和计算系统，这就是二进制系统，依此作为欧洲对古老的中国"

易经（5）"的一个回应，最终他发明了独立于任何民族语言的运算方法和逻辑，还有作为计算机的原型的计算机器（6）。

现代欧洲科学技术遵循了莱布尼茨的想法，产生了技术上的二进制主义和数字主义，并形成了今天西方——以及亚洲——

的基本技术和经济力量。但是，欧洲的技术力量停留在"老欧洲"的意识形态、形而上学和伦理学框架和限制当中。

### ——美国的美式梦想

在美国，欧洲的思维和技术形式摆脱了她的形而上学老套子，发明了"无所不在的计算"，实现了人工智能，人工生命，认知系统，机器人等等；实现了无限扩张的数字主义（7）。

今

天，美国的美式梦想气数已尽（8）！美式梦想的成功已经接近了尾声；而老欧洲还由她的古希腊起源支配着（9），摆脱了欧洲限制的美式梦想现在迷失了根

本，失掉了设计未来的精神源泉。美国的必然衰落是由于"无根"！与欧洲分道扬镳，成了无本之木无源之水，在数字主义达到了她的颠峰。在沉湎于"数字形而上学"

中并归结为0和1的不朽精神世界中，展望更先进的科技发展似乎是不可能的了（10）。全部美国式发展会在“数字实用主义”世界观中固步自封！

所以，基于古希腊字母文字、印度的数论和莱布尼兹采用中国文字模型，这一切作为欧洲和美国的美式梦想失去了设计世界未来发展的力量。

## ——中国书写模式

中国没有发展出类似的哲学（11）、科学（12）和技术（13），这是因为她的超复杂的书写模式，现在正在采用西方的科学技术成果；但是，中国在下一个时代自有对西方的优势：有没有被开发的丰富典籍资源。中国文字永远是她的文化和政治的基础和保证，没有“字母线性主义”和数字主义的限制。西方思维的线性性质是更容易映射进入中国理性的“表格样式”的。这种映射过程，在中国文字的自明性质方面不会导致任何混乱。

中国文字概念是表格样式的、多维度的、嵌入式的、开放的、复杂的和基于民族最古老文化传统的（14）。而这些特征正符合科学技术在处理现代社会问题和开创新未来的要求的。

因此，为今而言，所谓中国的挑战，不是为西方视为危惧的新的经济实力和扩张（15），而是在作为未来技术革命基础的中国理性重新发现的可能性方面。中国理性把任何美国式的东西远远地甩在了后面。中国对西方的挑战不是经济的、也不是政治的或者军事的；苏醒的技术中国和经济中国这个事件并不构成对西方的所谓的“大挑战”，真正的挑战是重新发现她的文字系统，并设计出新的理性形式系统，就像创造新的数学和新的编程语言一样（16）；是面对一个崛起的中国我们是否做好了充分的准备。

因为忙于适应西方的技术和经济，中国官方还没有意识到这种形成未来主流文化基础的可能性。可能吧，十九世纪是欧洲世纪，二十世纪是美国世纪，而二十一世纪将是中国世纪。

## ——形态语法学：第二个猜想

我的想法作为后欧洲的第二个关于中国文字的猜想由此而生。第一步，我提出“多结构逻辑（Polycontextural Logic）（17）”的研究和“形态语法学（Morphogrammtics）（18）”研究，作为在西方模式走到尽头时，对中国理性和技术的概念系统作的一个可能的、新的理解。这一工作——我知道它的风险——是某种实验性的猜想，具有永恒自解构的能力，超越西方、亚洲在思维和技术方面的“具象中心主义（19）”，形而上学的单一结构主义（20）。

形态语法学和多结构理论包含并且超越西方的思维、计算和编程语言的设计，能够满足新时代对操作理性提出的表格样式（21）的处理和对复杂性处理的要求。

猜想总是文化传统革命的前奏，总是为文化管理者所拒绝。

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SUNDAY, OCTOBER 22, 2006

## Liu Hsieh's Grammatology

# Again, hallucinating phono-logocentrism in Chinese and Western traditions

First, Han-Liang Chan's reading of Liu Hsieh

Second, my comments on Liu Hsieh

Third, Florian Coulmas' Writing Systems

(For technical reasons, again)

## Liu Hsieh (465 – 522)

*When the mind is at work,  
speech is uttered.*

*When speech is uttered,  
writing is produced.*

*The Tao inspires writing  
and  
Writing illuminates the Tao.*

*What in mind is idea  
when expressed in speech is poetry.*

*Isn't this what we are doing  
when dashing off writing to record reality?*

*Writing originated  
when drawing of bird trace  
replaced string knitting.*

### P'ien Wen

*"The revolt against imitative writing was also expressed in a 5th-century style called "pure conversation", an intellectual discussion on lofty matters. Some of these were recorded in a collection of anecdotes entitled 'Sayings of the World'. In the 6th century the first book of literary criticism, 'Carving of the Literary Dragon', was published by Liu Hsieh (465-522). It was written in the p'ien wen, or parallel prose, style."*

Liu Hsieh's style and strategy of writing, the P'ien-wen, has an antithetic, parallel and chiasmic structure which easily can be seen in the "poetic" presentation of the text.

## Han-Liang Chan's Hallucinations about Liu Hsieh

"However, this kind of mimesis is not different from what traditional Chinese scholars believe. The Chinese version of logocentrism can be glimpsed from the following statements

of the sixth-century Liu Hsieh, the first and probably the only systematic literary critic in classical and medieval China.

*When the mind is at work, speech is uttered. When speech is uttered, writing is produced. The Tao inspires writing and writing illuminates the Tao. What in mind is idea when expressed in speech is poetry. Isn't this what we are doing when dashing off writing to record reality? Writing originated when drawing of bird trace replaced string knitting. (13-17)*

These statements from Liu Hsieh, which have been so influential, represent different, and sometimes conflicting, theories regarding the origin of writing and its relation to speech. But they share the same belief in an ultimate, transcendental, undifferentiated, and unmediated reality, be it Tao or nature. In some sense, the metaphysics behind such statements is indeed naive and can be deconstructed by a rereading of the Chinese written character. But there is no fundamental difference between it and the Western logocentric metaphysics, which Derrida sets out to dismantle. There is no reason why Derrida's deconstruction of Western mimesis cannot be done to its Chinese counterpart. Thus I am tempted to ask: *isn't Derrida, like Leibniz before him, suffering from the same "European hallucination" that China is of necessity exempt from logocentrism? [...]* Under the tyranny of logocentrism, writing is rendered as secondary and subordinate. In Aristotle's celebrated phrasing which opens

On Interpretation:

*"Spoken words are the symbols of mental experience and written words are the symbols of spoken words" (qtd. in Gelb, 13).*

This formulation, which Derrida criticizes in *The Margins of Philosophy* as psychologism, is almost a verbatim paraphrase of Liu Hsieh:

*"When the mind is at work, speech is uttered. When speech is uttered, writing is produced."*

Thus in both China and the West, at least in the Aristotelian and Confucian traditions, the category of writing is inscribed only in relation to speech and to the subject of writing.

It is, as Derrida puts it in *The End of the Book and the Beginning of*

*Writing*, "pneumatological" rather than "grammatological" writing (1976, 17). This primacy granted to speech is open to deconstruction. Therefore, Derrida proposes that writing be shifted to the space of arche-writing (trace, différance)."

## **Complexity and Chiasm of Speech/Script/World**

*"When the mind is at work, speech is uttered. When speech is uttered, writing is produced."*

This, obviously sounds quite familiar, i.e. Aristotelian.

But the holistic principle of Chinese thinking demands to read the text or paragraph as a whole. I have not to be a sinologist to perceive a fundamental difference between Platonian/Aristotelian phono-logocentrism and Liu Hsieh's conception.

The Aristotelian concept is hierarchic:

**things -> soul -> spoken word -> written word.**

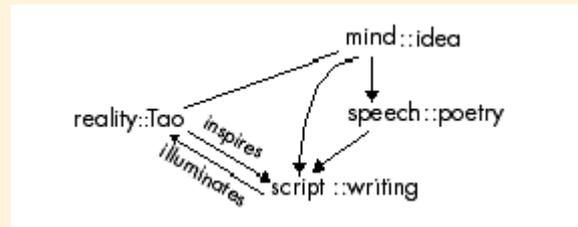
*"Words spoken are symbols of affections or impressions of the soul; written words are symbols of words spoken. And just as letters are not the same for all men, sounds are not the same either, although the affections directly expressed by these indications are the same for everyone, as are the things of which these impressions are images." Aristotle*

### **Micro-structure of the asymmetry**

A more detailed reading of Liu Hsieh shows that the conception he describes is different in,

at least, four ways:

1. it is *circular* : "The Tao inspires writing and writing illuminates the Tao.",



2. it is *co-creative*: "writing illuminates the Tao" and

3. it is *isparallel*: "What in mind is idea when expressed in speech is poetry./writing to record reality"

4. it is *evocative*: "Isn't this what we are doing when dashing off writing to record reality?"

These four properties are corresponding to the general ontology or world-view of Chinese thinking:

1. *dynamism*: things in the world are changing (circular, chiasitic, co-creative)

2. *grid and networking*: things are complex and interrelated (parallelism, concurrency).

3. *holism*: situational, all parts have to be considered which are constituting a pattern.

4. *interactional/reflectional*: the text involves a reader who is addressed in a persuasive, evocative mode.

But it is also self-referential: "what we are doing?"

The circularity is chiasitic, not simply repetitive.

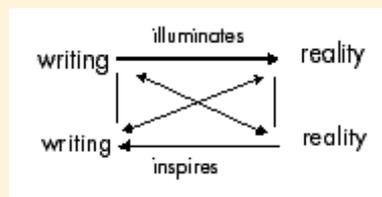
Between "*writing illuminates*" and "*Tao inspires writing*" exists a qualitative difference depending on the two involved positions: Tao, writer. And "idea in mind" vs. "poetry in speech" vs. "dashing off writing/recording reality".

There is also a historical comment involved.

As a result we can resume that the Chinese model of language is containing the classic Western model as a part of its complexity, and it seems that the Chinese model is more close to (post)modern scientific models of language than to Western philosophical models of language.

## Chiasm of writing

Writing as illuminating (acting),



Writing as being inspired (conceiving),

Reality as inspiring,

Reality as being illuminated.

Reality as reality

Writing as writing

Writing as counter-part to reality  
Reality as counter-part to writing.

### **Patterns of distribution**

It doesn't seem a too wild speculation to mention that the Chinese characters are placed in a way that they configure as a pattern. In such a configuration the intertextuality of the characters is of importance. For the eye, interconnections between the characters are perceivable. It is not depending on the listening of the linear ordered words and sentences but on the visual collection of the placed glyphs. Such situations are well known, also in the West, in modern poetry. A further analysis would have to involve the Chinese writing *in concreto*, with its glyphs and the "etymology" of the glyphs.

Han-Liang Chan's statement:

*"But they share the same belief in an ultimate, transcendental, undifferentiated, and unmediated reality, be it Tao or nature."*

seems not to be confirmed by the co-creative interaction of writing in relation to the Tao (reality). The Tao is changing under the action of writing, thus it is not in a simple metaphysical way *"ultimate, transcendental, undifferentiated, and unmediated reality"*.

Hence, the situation is unorthodoxically complex.

Han-Liang Chan's question

*"isn't Derrida, [...], suffering from the same "Europaen hallucination" that China is of necessity exempt from logocentrism?"*

Has no easy answer. As far as logocentrism can be seen as a part of the Chinese model, the answer is yes. As far as the Chinese model is taken in its full complexity, the answer is no.

Again, Han-Liang Chan's interpretation may be in the tradition of the historic understanding of the Chinese model, but this interpretation is not confirmed by Liu Hsieh's text.

Thus, the translation of Tao might then not be logos (ultimate, absolute) but change.

## **Florian Coulmas' Confirmation**

Interestingly, I found a direct confirmation of my "laicist" reading of Liu Hsieh.

The author of *"Writing Systems"* Florian Coulmas writes:

"It bears resemblance to Aristotle's, but upon closer inspection also differs in important respects. In his celebrated essay 'Carving of the Literary Dragon' writer and philosopher Liu Hsieh (465–522) states:

*"When the mind is at work, speech is uttered. When speech is uttered, writing is produced. The Tao inspires writing and writing illuminates the Tao. What in mind is idea when expressed in speech is poetry. Isn't this what we are doing when dashing off writing to record reality? Writing originated when drawing of bird trace replaced string knitting." (1983: 13–17)*

This definition shares a number of elements with Aristotle's.

A mind at work is what Aristotle calls 'affections of the soul'. It produces speech that in turn generates writing. The Tao corresponds to nature, that is, things about which ideas are

formed in the mind.

However, Liu Hsieh's statement also contains an element that lacks a counterpart in Aristotle's definition.

Writing is credited with a creative analytic potential:

*it illuminates the Tao.*

*Moreover, the Tao inspires writing, apparently unmediated by speech.*

An idea in the mind is expressed in speech, but also in writing that is employed 'to record reality'.

While Aristotle unambiguously places speech between ideas and written words, Liu Hsieh seems to concede the possibility that ideas are expressed poetically in speech or in writing, where the relationship between the two is not necessarily unidirectional.

This does not imply that, unlike the Greek philosopher, the Chinese denied that writing was bound up with language, but from his account of the relationship between ideas, speech and writing it cannot be concluded that he conceived of writing as a mere substitute for speech.[...]

Linguistic orthodoxy happily concurs with Ferdinand de Saussure's apodictic statement that made Aristotelian surrogationalism a cornerstone of modern linguistics:

*"Language and writing are two distinct systems of signs; the second exists for the sole purpose of representing the first. The linguistic object is not both the written and the spoken forms of words; the spoken forms alone constitute the object."* (Saussure 1959: 23)

Following this prescriptive instruction, most introductory textbooks of linguistics simply exclude the problematic of writing or make do with a cursory review of a number of writing systems in the final chapter.

Notice in passing that this is quite different in the Eastern tradition of the scientific study of language. *The Encyclopedic Dictionary of Chinese Linguistics* (1991-2), for example, treats writing systems as its first topic at great length.

A noble and widely accepted reason for ignoring writing or treating it lightly in the West is that all human languages are thought to be equal in the sense that they are expressions of the same inborn faculty of language."

## **Hidden Heterodoxy in the Hierarchy Thesis**

After all, the question of Chinese phonologocentrism has lost its innocence and simplicity; it has to be involved in a complex 'hermeneutic' and grammatological game of change with its hierarchic/heterarchic, dynamic/co-creative, direct/concurrent aspects.

It turns out to be more interesting to hallucinate on the base of proper reading.

But the Western tradition isn't as simple as described, too.

A critical reading of the original manuscripts of Plato and de Saussure confronts interpretation with some anti-traditional surprises. But we have to accept that the hierarchic model has dominated the history of western thinking and technology. It was the only paradigm with a manageable operativity. Plato's approach was too archaic, and de Saussure's wasn't even published properly at his time. Today, the hierarchy starts with the narrative of innate basic patterns.

A similar situation to the complex model of speech and writing we will discover in the relationship between *polycontextural logic*(negative languages) and *morphogrammatrics*.

## **Hallucinations never end**

Leibniz was hallucinating Chinese scriptural culture, Derrida was hallucinating Chinese script, Han-Liang Chan is hallucination Liu Hsieh and Derrida, Florian Coulmas is hallucinating on hallucinations of Ferdinand de Saussure's students, Gotthard Gunther is hallucinating the Chinese asymmetry in favor of his "*negative language*", I am hallucinating the hallucinations of writing and reading in favor of a hallucinated Chinese Challenge.

## **Asymmetry/polycontextural logic**

From the point of view of the profound asymmetry between spoken and written Chinese language, as Gunther mentioned in his letter, we have not to go too much into further linguistic details of analysis.

However, the asymmetry is not a simple inversion of the hierarchy of spoken and written language but is involved in the complex interactivity between speech/script/world as it was suggested by the thoughts of Liu Hsieh.

It has, further more, to include script as numbers and mathematics.

In Aristotelian philosophy of language/writing there is no asymmetry between the magnitude of language and writing but a hierarchy of relevance. First is spoken language, then written language.

In the Chinese paradigm there is a complex dynamism between spoken/written language and reality.

*"That is, in holding to the ideograms, lies an unconscious insight of a massive asymmetry between spoken and written language. It is the written language, on which a main culture rests. It possesses an identity strength, which stands out clearly against the identity weakness of the spoken word." Gunther*

Gunther's conception of a "negative language" (*polycontextural logic*) is emphasizing the asymmetry between spoken and written language in respect to formal languages. His negative language is a formal language surpassing traditional formal logic, and thus, strictly not a language but a complex

Today, the Aristotelian hierarchy is still at work in computer science and technology. It is mainly based on Viennese positivism and analytical philosophy and comes as the hierarchy of syntax, semantics and pragmatics. Thus, it has a cultural and economic impact.

The same happens for the Web. The Web is syntactically structured, based on ID numbers, organized in a central administration. The new movement, *Semantic Web*, tries to add some semantics to it. Computer science is strictly following the narrow path of formal logic.

For China, there are no epistemological barriers produced by the complex scripture to fully assimilate Western logic and scientificity. Simply because the Western hierarchic paradigm of thinking appears as a part of the holistic and heterarchic Chinese paradigm of writing and thinking.

## **Imperialism of phonetization and Unicode**

*"In spite of his own European hallucination, which can be deconstructed in and by itself, Derrida's concept of writing is existential urgency to the Chinese as users of script. Ever*

since the seventeenth century, the Chinese writing system has been challenged of the curious joint forces of Leibnizian admiration and Hegelian scorn. Specifically, it has had to meet the continued challenge of, in Derrida's words, the imperialism of phoneticization, which has been aggravated since the Opium War by the religious, political, and technological encroachments of Western powers. This language—or more precisely, script—crisis has never been sufficiently addressed.

Among notable projects of language imperialism are the numerous attempts at Latinizing the script and the on-going debate on the so-called "monosyllabic myth."

Recently, Stephen A. Tyler has proposed a postmodern ethnography by questioning the ethnographer's very medium of writing for his text and suggesting as an alternative the native's participatory voice. But I am afraid that in the case of representing China's essentially script culture, the native's "voice" has to be silenced in the first place."

Attempts to phonetization comes in a pedagogical disguise. It would be much easier for human beings to learn Chinese if it could be reduced to an as simple system as Western alphabets. But this, again, is a Western myth as comparative studies of educational systems have shown. This trend is not aware about the Chinese history which always had the possibility to change the base, but for good reasons, didn't. Now, a new candidate is learning Chinese, our computers. And surprisingly, instead of denying the complexity of the Chinese characters to feed computers, the contrary happened. Thanks to codification, Chinese characters can be represented in Unicode. And are therefore accessible for electronic writing and printing.

### **Codification as a protection: Unicode**

Unicode provides a unique number for every character, no matter what the platform, no matter what the program, no matter what the language.

*"With the help of the four-byte coding technology, people can easily type in 70,000 characters in any computer installed with a coordinated database, Wang said, adding that the original two-byte coding could only deal with 20,000 characters.*

*The Kangxi Dictionary, a famous Chinese dictionary compiled during the reign of Kangxi Emperor of the Qing Dynasty (1644-1911), is now under the publishing process with the help of four-byte coding. The dictionary was best known for including the most rare characters in the Chinese language.*

*"Apart from its own meaning, one character also embodies the culture and history of the user", Feng said, "We should better preserve and protect our Chinese characters by using advanced technology."*

Representing Chinese characters by numbers in the process of codification in Unicode is not reducing Chinese writing to the linearity of alphabetism. Alphabetism would be another kind of writing, Unicode is not another kind of writing but a codification of Chinese writing. Writing is not coding.

But nevertheless, Unicode is mapping codified characters onto the linearity of natural numbers. In Gunther's wording, it is a mapping onto a positive language, that is, onto the arithmetic of a positive language which is an uni-dimensional arithmetic. A negative language, and Gunther considered the Chinese script, because of its complexity, a historical negative language. A negative language then would ask for a pluri-dimensional arithmetics and a complex polycontextural logic. And a codification then would have an other function, it would be rather a formalization then a codification.

SATURDAY, OCTOBER 21, 2006

## New Enlightenments in the Orbit?

### 1 Towards a Metaphor of Togetherness

Time is coming that we have to learn to live together at the same place without any chances of excluding each other.

Earlier on we solved this problem of living together with the help of the operation of separation and exclusion. Nobody had to live at the exact same place as someone else. The separation of two beings has given the space and possibility for interaction and cooperation between these entities. The separation was the fundamental condition for the possibility of interaction (cooperation, communication, co-creation, etc.).

Now it seems that we have reached the point that we have to develop a concept of living together in which we have to take place together simultaneously at the exact same place.

It will turn out that this way of living together is prior to any separation and therefore to any form of interaction and cooperation.

In classical terms two objects must be identical if they are not different. They are different if it is possible to separate them.

How could togetherness be thought and conceptualized without the assumptions of identity and distinctness and the procedures of identification and separation?

How could this be possible? First of all, it isn't possible at all on the premises of the traditional concepts of place, space, object, time, state, separation and interaction. The reason is obvious, all these concepts are fundamentally rooted in the ontological and logical principle of identity.

In technical terms, how could it be possible that two different states of a computation could occupy the very same place in the computing space of their machine?

Obviously this is not possible at all. It isn't possible neither from the point of view of the machine nor of the basic concepts of the programming languages. It is impossible for logical and physical reasons.

Simply take the example of the definition of EQ in the programming language LISP:

```
EQxy =def if (eval x) = (eval y) then true  
else false
```

The equality EQ of x and y is strict, it is fulfilled or it is not – tertium non datur. The logic which is ruling these conditions is strictly binary. It is in whatever form a

two-valued logical system which is ruling the conditions of equality. All in all, there are three levels of equality involved ruling this definition: the definitional ( $=_{\text{def}}$ ), the defined (EQ) and the defining ( $=$ ).

There is also no chance on the level of implementation on a more physical level of a machine. Two states are equal if they have the same address, and if they have the same address they have the identical physical realization which is the equality ( $=$ ).

It seems that there is no chance to escape this situation.

## **2 America wants it all - life, the Universe and everything**

Again:

*"In technical terms, how could it be possible that two different states of a computation could occupy the very same place in the computing space of their machine?*

*Obviously this is not possible at all."*

We can paraphrase this statement into a more accessible terminology.

*In political and military strategies, how could it be possible that two different states of this planet could occupy the very same place in the power space of their hegemony?*

*Obviously this is not possible at all.*

I surely always thought that such paraphrases would "automatically" happen in the mind of the readers of my texts.

Obviously this is not the case at all.

OK, restart reading, or enjoy DERRIDA'S MACHINES.

Therefore I will give some hints in this Blog which, in my opinion, are unnecessary, because of their self-evidence. To study, say ancient Chinese and Pythagorean Number Theory and Logic, is not a lost academic game and also not a "brainfuck" at all, but of enormous help to surpass today's dilemma of digitalism and its self-destruction. My hope is, that with such studies we will be better "weaponed" to "fight" the "conflicts" on the way through to a development of polycontextural logic and morphogrammatcs, as first steps beyond contemporary global madness.

There is nothing shiny in morphogrammatcs, nor is there a masters voice to follow.

But first I will deal with the (high)lights of enlightened reason.

### **Keywords:**

*light, lighting, lightening, enlightenment, laser beam, Lichtung, blind, blinding, blenden (germ.).*

To make a rest (Feierabend), enlight your cigarette, then go and visit Paul Feyerabend

## And now, let's learn the News from America!

"The Bush administration has staked an aggressive new claim to dominate space - rejecting any new treaties that seek to limit the United States' extraterrestrial activities and warning that it will oppose any nations that try to get in its way."

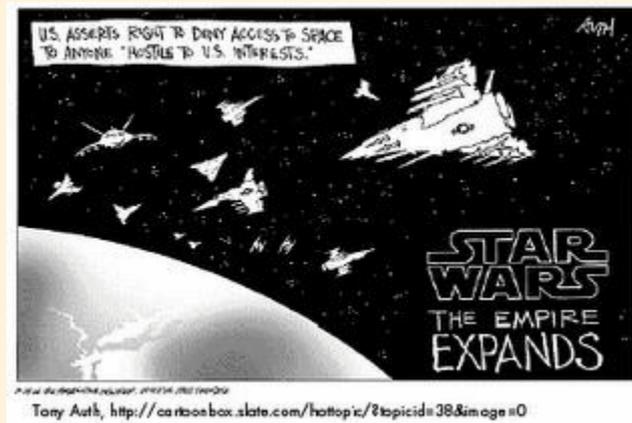
Obviously, again, these logocentricists at the Pentagon have forgotten the possibility of extraterrestrial visitors, probably not actually on the way yet.

America wants it all - life, the Universe and everything

*"The United States considers space capabilities -- including the ground and space segments and supporting links -- vital to its national interests,"* the policy said.

*"Consistent with this policy, the United States will: preserve its rights, capabilities, and freedom of action in space; dissuade or deter others from either impeding those rights or developing capabilities intended to do so; take those actions necessary to protect its space capabilities; respond to interference; and deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests."*

The White House said the policy does not call for the development or deployment of weapons in space.



Cartoon from Tony Auth



*"This policy emphasizes that the United States is committed to peaceful uses of space by all nations and that space systems enjoy the right of free passage,"* National Security Council spokesman Frederick Jones said.

He said the United States maintains the right of self-defense and the protection of its interests and assets in space.

*"Protection of space assets does not imply some sort of forceful action," he said. "There is a broad range of ways to protect our space capabilities" such as system hardening, encryption, maneuvering and other methods.*

*"The new policy is consistent with previous national space policies in this regard," he said.*

Jones said the challenges and threats facing the United States have changed in the decade since the space policy was last updated.

*"Technology advances have increased the importance of and use of space," he said. "Now,, we depend on space capabilities for things like: ATMs, personal navigation, package tracking, radio services, and cell phone use."*

The new policy was first reported by [The Washington Post](#).

**Here it is:**

**UNCLASSIFIED**

## **U.S. National Space Policy**



The President authorized a new national space policy on August 31, 2006 that establishes overarching national policy that governs the conduct of U.S. space activities. This policy supersedes Presidential Decision Directive/NSC-49/NSTC-8, National Space Policy, dated September 14, 1996.

### **1. Background**

[...]

For five decades, the United States has led the world in space exploration and use and has developed a solid civil, commercial, and national security space foundation. Space activities have improved life in the United States and around the world, enhancing security, protecting lives and the environment, speeding information flow, serving as an engine for economic growth, and revolutionizing the way people view their place in the world and the cosmos. Space has become a place that is increasingly used by a host of nations, consortia, businesses, and entrepreneurs.

In this new century, those who effectively utilize space will enjoy added prosperity and security and will hold a substantial advantage over those who do not. Freedom of action in space is as important to the United States as air power and sea power. In order to increase knowledge, discovery, economic prosperity, and to enhance the national security, the United States must have robust, effective, and efficient space capabilities.

## 2. Principles

The conduct of U.S. space programs and activities shall be a top priority, guided by the following principles:

The United States is committed to the exploration and use of outer space by all nations for peaceful purposes, and for the benefit of all humanity. Consistent with this principle, “peaceful purposes” allow U.S. defense and intelligence-related activities in pursuit of national interests;

The United States rejects any claims to sovereignty by any nation over outer space or celestial bodies, or any portion thereof, and rejects any limitations on the fundamental right of the United States to operate in and acquire data from space;

The United States will seek to cooperate with other nations in the peaceful use of outer space to extend the benefits of space, enhance space exploration, and to protect and promote freedom around the world;

The United States considers space systems to have the rights of passage through and operations in space without interference. Consistent with this principle, the United States will view purposeful interference with its space systems as an infringement on its rights;

The United States considers space capabilities -- including the ground and space segments and supporting links -- vital to its national interests. Consistent with this policy, the United States will: preserve its rights, capabilities, and freedom of action in space; dissuade or deter others from either impeding those rights or developing capabilities intended to do so; take those actions necessary to protect its space capabilities; respond to interference; and deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests;

• *The United States will oppose the development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access to or use of space. Proposed arms control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing, and operations or other activities in space for U.S. national interests; and*

• *The United States is committed to encouraging and facilitating a growing and entrepreneurial U.S. commercial space sector. Toward that end, the United States Government will use U.S. commercial space capabilities to the maximum practical extent, consistent with national security.*

## 3. United States Space Policy Goals

The fundamental goals of this policy are to:

Strengthen the nation’s space leadership and ensure that space capabilities are available in time to further U.S. national security, homeland security, and foreign policy objectives;

Enable unhindered U.S. operations in and through space to defend our interests there;

Implement and sustain an innovative human and robotic exploration program with the objective of extending human presence across the solar system;

Increase the benefits of civil exploration, scientific discovery, and environmental activities;

Enable a dynamic, globally competitive domestic commercial space sector in order to promote innovation, strengthen U.S. leadership, and protect national, homeland, and economic security;

Enable a robust science and technology base supporting national security, home-land security, and civil space activities; and

Encourage international cooperation with foreign nations and/or consortia on space activities that are of mutual benefit and that further the peaceful exploration and use of space, as well as to advance national security, homeland security, and foreign policy objectives.

<http://www.ostp.gov/html/US%20National%20Space%20Policy.pdf>

Bush Sets Defense As Space Priority

U.S. Says Shift Is Not A Step Toward Arms; [Experts Say It Could Be](#)

### 3 And what is the Chinese Challenge in this Space Game?

United States concern as China targets spy satellite with laser beam

Andrea Shalal-es

*"CHINA has beamed a ground-based laser at American spy satellites over its territory, the US defense department has said."*

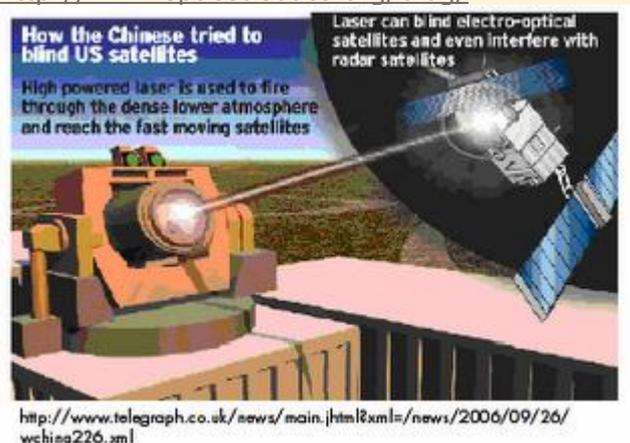
*"Space is a much bigger part of our military posture than it used to be, so any effort by the Chinese or anybody else to jam our satellites is potentially a big deal," said Loren Thompson, a defense analyst at the Lexington Institute."*

#### Discussions:

[http://digg.com/tech\\_news/Chinese\\_Lasers\\_vs\\_US\\_Satellites](http://digg.com/tech_news/Chinese_Lasers_vs_US_Satellites)

<http://www.spacedebate.org/argument/1343>

<http://www.spacedebate.org/blog/>



### Beijing secretly fires lasers to disable US satellites

By Francis Harris in Washington

The document said that China could blind American satellites with a ground-based laser firing a beam of light to prevent spy photography as they pass over China. According to senior American officials: *"China not only has the capability, but has exercised it."* American satellites like the giant Keyhole craft have come under attack *"several times"* in recent years. Although the Chinese tests do not aim to destroy American satellites, the laser attacks could make them useless over Chinese territory. The American military has been so alarmed by the Chinese activity that it has begun test attacks against its own satellites to determine the severity of the threat. Satellites are especially vulnerable to attack because they have predetermined orbits, allowing an enemy to know where they will appear.

*"The Chinese are very strategically minded and are extremely active in this arena. They really believe all the stuff written in the 1980s about the high frontier,"* said one senior former Pentagon official."



The Army's Tactical High Energy Laser Advanced Concept Technology Demonstrator (THEL/ACTD) has successfully demonstrated its ability to detect, track, engage and destroy a Katyusha rocket armed with a live warhead. The rocket in flight was successfully intercepted and destroyed in field testing at the Army's High Energy Laser Systems Test Facility, White Sands Missile Range, N.M.

<http://www.spacedaily.com/news/laser-00g.html>

"If U.S. military weapons planners have learned anything from the varied conflicts of the past quarter century, it is that the challenges are not getting any more predictable. With the nature and capabilities of U.S. opponents changing on practically an engagement-by-engagement basis, deciding which new weapon technologies will best serve soldiers in the battle theaters of the future remains a high-stakes guessing game."

"The enemy is no longer necessarily a nation; it can be a terrorist cell. The enemy may not possess high-tech weaponry yet still pose a threat--by exploding truck bombs on suicide missions or by firing hand-launched missiles against F/A-22 fighter jets. Nor, despite the absolute technological supremacy of the U.S. military today, can strategists afford to ignore the possibility that a nation that has developed advanced weaponry might come to pose a threat in a nightmare future."

### **Dialectics of Lighting and Blinding**

Where there is too much light we need some blinds. Because too much light is blinding your sight. A Blender (germ.) is a blender (dazzler, engl.), but a Blinder is not a necessarily a Blender.

Blinding is the opposite of lighting. Both are forming together the system of "enlighth(en)ment". If light is used to spy then the defence to blind with light is not only enlightened but the start of a first round in the spiral of reflection too. Hegel would call this reflectional game "*schlechte Unendlichkeit*" (bad infinity), because it runs into an infinite regress. He would also call the first step of the game, the spying, a *factum brutum*. And nobody reflected has to accept such a factum brutum.

In the epoch of digitalism with its binary logic it seems we have to live with it.

Or we can try to surpass the madness, say with a neither-nor rejection of both at once.

I remember vaguely an **Ancient Mongolian** story about far-sightedness and blindness. At the end of a competition about far-sightedness, one guy says, my friend can see much more than all of your guys together. Also he has only one eye; and on this eye he is blind. But if he sees, he sees three-times more far than all of you together. Try it!

#### **4 Lichtung: "Anchors aweigh!" and the New Enlightenment?**

Introduction to and Discussion Summary of Wang Hui's

Humanism as the Theme of Chinese Modernity

ABSTRACT by WANG HUI

"By examining humanist and **Enlightenment** discourse in reference to China and to the West, this essay reopens the question of how modern Chinese intellectuals assimilated Western ideas and applied them in their own social practice. It indicates the historical conceptions that underlie Western humanism and traces the evolution of Chinese humanist discourses in terms of their media of dissemination, their impact on the organization of knowledge, and their relationship to Marxist concepts of the mode of production."

#### **Lichtung as clearance, clearing, glade and to unanchor**

Martin Heidegger: Wahrheit als die DIE LICHTUNG DES SEINS.

#### **Darling look, The Future is Bright!**



"ONCE again, science fiction has predicted science fact. Remember those movies where the hero (or villain) uses a beam from a compact laser to blow a rocket out of the sky?"



## Meeting the Challenges

The SSHCL delivered to White Sands for testing last September has an amplifier composed of nine disks of neodymium-doped glass (Nd:glass). In this prototype, an electrical source powers flash-lamps, which in turn pump the disks, which then release the energy in pulses of laser light. The average output power of the SSHCL is 10 kilowatts, and it can deliver 500-joule pulses at 20 hertz in 10-second bursts—essentially vaporizing metal. The prototype requires 1 megawatt of input power to produce a 13-kilowatt laser beam. ..."

The former Pentagon official put it more bluntly.

*"The Air Force is trying to put a happy face on this," he said. "It's not that they don't know what do. It's that they don't have the money in their space budget. It's that simple."* (DefenseNews.com)

## 5 LICHTUNG: Beyond Belichtung

### Heidegger's *Lichtung* (clearing) as glade.

"In Heidegger we find a meditation on what he calls the "**clearing**" (*Lichtung*) or truth as *aletheia*, the first openness that is the precondition for all other intentional structures, and that has a special and privileged relation the artwork as the opening of a world."



**"Lichtung**: As an open field of sense-making relations, the world is an "opening" that "clears" things, i.e., makes them in-telligible-as *aletheia*. To "clear" something means to free it from dumb lethic "thereness" by relating it to human purposes. In that capacity the world is called *Lichtung*, not the "lighting process" but the synthetic-differential "clearing" that opensthings-up-as. *Lichtung* erbringt Anwesen: By rendering things intelligible-as, the clearing gives being."

Beiträge and later works make it clear that Ereignis is not an "event" in any usual sense of the term (i.e., *Vorkommnis* und *Geschehnis*: SD 21.27) and that what Heidegger meant by Ereignis is not primarily "appropriation" or "enowning."

In the forthcoming GA 71 (Das Ereignis, 1941-42) Heidegger shows that the original etymon of Ereignis is not *eigen* ("own," parallel to the Latin *proprium*, from which derive "appropriation" and "enowning") but rather *eräugen/ereugen*, "bringing something out into view." Heidegger got much of this from Jacob and Wilhelm Grimm.<sup>14</sup> More importantly, however, in GA 71 (section "Das Ereignis," sub-section "Er-eigen -- Er-eignen," ms. 100a), Heidegger annotated the Grimm etymologies, thereby providing his own understanding of Ereignis.

The noun Ereignis ("event, occurrence") points back to the reflexive verb *sich ereignen*, "to happen, occur."

Alter Hohlweg, Voßbruch

### **Beyond Lighting and Blinding**

"Heidegger likewise accepts that the primary meaning of *sich ereignen* is "to come into view, to appear, to be brought forth and revealed":

*Er-eigen: er-eugen - er-äugen - ostendere, monstrare,  
in die Augen, Blick, Anblick  
fallen - erscheinen  
sich offenbaren, zu-tragen,  
be-geben.*

Most significantly, he glosses all this with a verb that does not appear in the Grimms' etymology. In apposition to Grimms' *erweisen* and *erzeigen* Heidegger places *lichten*, "to disencumber and free up, to open up or clear":

*"lichten - erweisen - erzeigen.*

Thus, in the reflexive, *sich erweisen* and *sich erzeigen* ("to show up or appear as what one is") mean the same as *sich lichten*, "to be opened up and cleared." *Sich ereignen* ("to occur") means that something is brought out into the open, comes into the clear:

*"in die Lichtung einbeziehen."*

Heidegger reinforces this when he states that *das Er-eigen* (which he glosses as *Er-äugen*) has the transitive sense of "lichtend - weisen" -- "to show by opening up" (in the reflexive: "to appear by having been opened up").

Thomas Sheehan, *A Paradigm Shift in Heidegger Research*

### **New Enlight(en)ments in Glasgow? The Scottish Enlightenment**



Scotland not only had an import and time in the development of laser technology but even more widely known a vibrant epoch of cultural enlightenment.

"The *"Scottish Enlightenment"* stretched roughly from 1740 to 1790. Unlike in France, many of its protagonists were academics. Francis Hutcheson, Adam Smith, Thomas Reid and John Millar were professors at the University of Glasgow. Adam Ferguson,

Dugald Stewart and William Robertson were at the University of Edinburgh. The universities of Aberdeen and St. Andrews were dominated by their students. But there were also some important figures outside the academy who influenced the course of the dialogue, including Lord Kames, Sir James Steuart, Dr. James Anderson and, above everybody else, the towering figure of David Hume. [...] The efforts of the Scottish school led Voltaire to note that "we look to Scotland for all our ideas of civilization".

Picture Ron Stirling, Dennistoun, Glasgow

Finished writing during the Big FireWorks of Eid, Celebration of Light and Enlightenment, Glasgow 2006

**Eid ul-Fitr** (Arabic: عيد الفطر), is an Islamic holiday that marks the end of Ramadan, the month of fasting.

New Enlightenment in the Orbit? (PDF)

posted by Rudolf | 5:53 AM | 0 comments [links to this post](#)

SATURDAY, OCTOBER 07, 2006

## 寓理于算，不证自明

有许多这类例子。

如《九章算术》中的凫雁相逢（凫就是野鸭）：

“今有凫起南海，七日至北海；雁起北海，九日至南海。今凫雁俱起，问何日相逢？”

答曰：三日十六分日之十五”

中国古代数学喜欢把各种实际问题分类，概括为算法。算法就是解决一类有共同特征的问题的规范程序。凫雁相逢的算法叫作“齐同术”：“按此术，置凫7日一至，雁9日一至，齐其至，同其日。定63日凫9至，雁7至。今凫雁俱起而问相逢者，是为共至。并齐以除同，即得相逢日。”

翻译成现在的伪代码形式：

- (1) 同其日； # 把63天作为同其日
- (2) 齐其至； # 63天凫9至，而雁7至
- (3) 并齐； # 并齐7 + 9
- (4) 并齐以除同； # 并齐以除同就是 63除以16
- (5) 得相逢日； # 得答案

在现代组合学中使用算法作为证明的过程已经成立标准方法，如图论中的一个基本定理“最大流-最小割”定理（Max-flow Min-cut

Theorem）也叫Ford-Fulkerson

Algorithm，就是这样的。这跟中算的“寓理于算，不证自明”的方法不谋而合！

中国古代数学区别于公理化数学的最重要的特征在于，中国数学是面向算法的，根据各类实际问题的共同特征概括为规范的算法，所以中国数学主要是研究算法的：如今有术、衰分术、更相减损术、变分术、方程术、盈不足术、割圆术、方程术、大衍求一术和勾股术等等。

以下可做参考。

来源：<http://www.frchina.net/data/detail.php?id=12125>

作者：傅海伦

出处：北大科学史与科学哲学

“中

国的筹算体系和模式在宋元时期达到数学的高峰在很大程度上是算法机械化达到最高水平。贾宪三角和增乘开方法是对《九章》以来开方程序的重大提高和创造，

秦九韶的正负开方术又把增乘开方法发展到十分完备的境地，其大衍求一术也是在历代对"上元积年"推算基础上将"物不知数"问题解法发展到最一般的机械化程

序。李冶的天元术更是对列方程算法的重大改进和突破，同时也是几何代数化思想的完美体现。从天元术到四元术，是解一般高次方程向多元高次方程组发展的必然

结果和要求。因此，中国在宋元时期算法机械化达到空前的高水平，是与传统数学文化价值观的要求相一致的，是中国筹算文化排列模式和变换技术长期积累后的自

然发展，它是中国筹算体系下的数学计算以快速、准确、简洁解决一类具体问题而发展自己的操作运演的必然趋势和结果。

中

国古代数学的筹算体系和机械化特色，决定了它不可能形成如同欧几里德《几何原本》那样完整的演绎逻辑系统，而由于筹算本身的直觉启示、模型构造性特点以及

特殊的运演排列的结构和形式，决定了中国古代数学是以解决实际问题为目的的抽象模型化方法、化归方法，概括出一般原理、原则用以解决一大类问题的归纳和演

绎方法相结合的有机统一，决定了中算的"寓理于算"、算理结合的主要特色。由于中算的"寓理于算"常常是将"理"寓于"法"中，许多中算算法如更相减损

术、变分术、盈不足术、割圆术、方程术、大衍求一术等等，算法步骤精细，一步一步推导十分明确，有"不证自明"的效用，而对几何问题同样是采取几何代数化

的形数结合，"寓理于算"。开平方、开立方和解高次方程的方法，都由几何模型导出，从图验法到宋元算家的演段法，其本质相同，但更侧重于阐明算法的合理性而不是阐明几何关系。”

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posted by Rudolf | [1:24 AM](#) | [0 comments](#) [links to this post](#) 

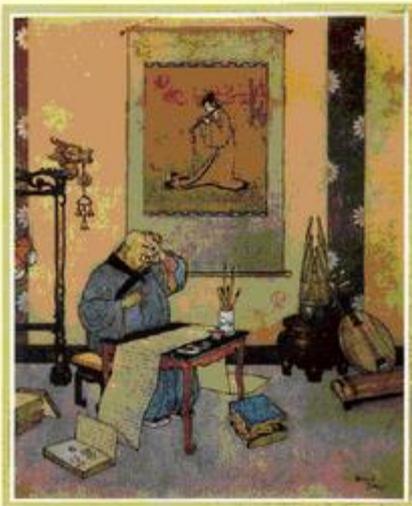
THURSDAY, OCTOBER 05, 2006

## Still Writing?!

### Postcard

### from Madoka Takashiro

(Tokyo/Karlsruhe)



Rudolf in China...?!

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posted by Rudolf | [7:00 AM](#) | [0 comments](#) [links to this post](#) 

TUESDAY, OCTOBER 03, 2006

## Semiotics to Morphogrammatics

Anybody who can identify a sign, say "a", would accept that such an identification is not insisting on the small differences between different occurrences of the sign or letter "a". It would be ridiculous to say that a letter "a" in red ink has not the same alphabetic meaning, i.e., to be the letter "a" if written, in the same way and having the same form, with black ink. A letter "a" is a letter "a" independent of physical differences, at least as long as the letter can be identified as the letter "a". In other words, a letter can be identified as such a letter only if it can be strictly separated from its environment. If the environment is disturbing too much the occurrence of the letter it can not be clearly identified. This interplay between identification and separation is well known in semiotics and has practical relevance for OCR software.

Given two letters "a" and "b", strings can be produced by concatenation, "aa", "bb" and "ab", "ba".

Now we learnt before that an "a" is an "a" and thus a "b" is a "b". Obviously, "aa" and "bb" are different, but also "ab" and "ba". And this is working for all sets of letters we can identify. This ability of identification has a very old tradition. It is independent from specific languages, natural or artificial.

But slowly it gets quite boring!

Our children are fit in it and our computers are succeeding well.

On the other hand, more or less all our scientific and especially our mathematics is based on sign systems.

Why should we make such a big thing to separate, say, "aa" from "bb", and "ab" from "ba"? Are they not the same? There is no interesting difference between "aa" and "bb" and the same for "ab" and "ba". To insist that "aa" is different from "bb" is not less annoying than to insist that a green letter "a" is alphabetically different from a black letter "a".

Just for fun we could accept such a move away from the letter game of our childhood and academics. From now on we are interested only in patterns of letters and not in letters any more. We could call this move a pattern-oriented approach to scripts, or even, to be scientifically trendy, a morphic abstraction. Morphé in Greek means form, pattern or better, Gestalt. And such inscriptions of patterns can be called morphograms.

Such a game would be useless if it wouldn't produce new rules. So, what are the new rules of the game?

To answer this question, we remember the rules of the games of letters. Letters, marks, signs, characters comes as atomic signs and can be connected to compound signs. The atomic signs are collected in a signs repertoire, also called alphabet. It is presumed that the numbers of signs of an alphabet can be finite or even infinite. The compound signs are then produced out of such an alphabet with the help of rules. The basic rule is the rule defined by concatenation. As usual, there is also a dual approach. Instead of concatenation we can chose its dual, substitution. Such compound signs are called words. Both together, the alphabet and the rules, are producing a word algebra. The algebra determines the properties of the rules.

## Monads

"Words" of length 1 are called in a morphogrammatic game, monadic words, or monads. We can think of a plurality of monads, like (a), (b) or (c). But if we bring those isolated monads together, we discover that they are all the same, i.e., monads. They are involved in a morphogrammatic equivalence.

On the semiotic side, we see, that all different atomic signs are not equal but different. Later, we can introduce a less "semiotic", i.e., sign-focussed, approach to morphograms and will be able to avoid such a paradox wording of the sameness of a plurality of monads. In fact, there is, morphogrammatically, only one monad. This fact doesn't make a monad "holy", in the sense of Pythagoreism.

We can also bring two monads together, to form a coalition or being concatenated. But instead of being chained, monads have only the chance to cooperate as the same or as a different to the existing monad or, later, morphogram.

Thus, (a), (a)  $\rightarrow$  {(aa), (ab)}  
or (a), (b)  $\rightarrow$  {(aa), (ab)}  
and (ab), (a)  $\rightarrow$  {(aba), (abb), (abc)}.

The semiotic approach is still too much focussed on the objects of the game instead of the operativity of the rules (morphisms) of morphogrammatics.

Similar to the duality in category theory of objects and morphisms.

## Convention

To inscribe with signs (letters, characters, marks, numbers, etc.) patterns we have to agree to a convention, say, we take (a) as the notation of a morphogram of length 1. All other representations like (b), (c), etc. are morphogrammatically the same.

This convention is not more obscure than to agree to a standard representation of a sign, say a. Remember, this sign "a" can have many occurrences.

For that, the discipline of semiotics distinguish between type and token of a sign. Tokens are inscribed on paper, types are recognized in the mind of a reader.

Types, thus, are abstractions from tokens.

## Chiasm of types and tokens

Morphograms as double abstractions

Graphemic abstraction from token to type:

{a, **ā**, a, a, a, **ā**}/graph = {a}

Morphogrammatic abstraction from type to morphogram:

{a, b, c, d, e, f}/morph = (a)

But: conc { (aba), (a) } = {(abaa), (abab), (abac)}

February 2007 / [http://www.thinkartlab.com/CCR/2007\\_02\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2007_02_01_rudys-chinese-challenge_archive.html)

THURSDAY, FEBRUARY 15, 2007

A little typology

# Writing and world models

The little typology of writing paradigms is confronted with the "*Diagrams of the 4 World-Models*". The 4 world-models are modeling the 4 possible configurations between *rationality* and *reality* or *logics* and *worlds*. A correspondence between the 4 paradigms of writing and the 4 world-models may be established. Each subject is realizing the spirit/mind/speech/writing/reality relation, i.e., its reality/rationality or world/logic relation in a specific world model.

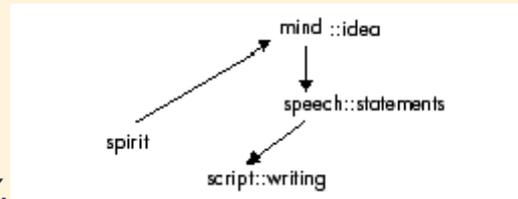
<http://www.thinkartlab.com/pkl/media/SKIZZE-0.9.5-Prop-book.pdf>

## Phonologism of Western Writing

This is the scheme of a logocentric understanding of writing. It corresponds to the dominant tradition of Western philosophy and linguistics. But there are no surprises to observe that this scheme holds in a similar way in other cultures, too.

### Aristotle, On Interpretation:

*"Spoken words are the symbols of mental experience*

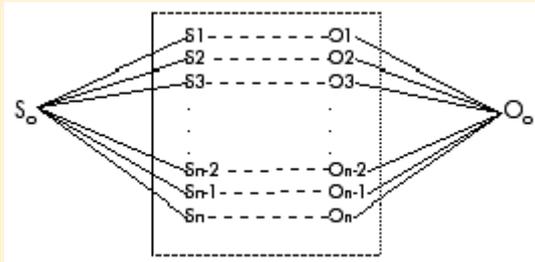


*and written words are the symbols of spoken words".*

**Hegel** writes in his Encyclopaedia of the Philosophical Sciences, Part III: The Philosophy of Spirit (1830)

*"Alphabetic writing is on all accounts the more intelligent: in it the word a the mode, peculiar to the intellect, of uttering its ideas most worthily a is brought to consciousness and made an object of reflection."* [http://www.thinkartlab.com/CCR/2006/08/alphabetism\\_29.html](http://www.thinkartlab.com/CCR/2006/08/alphabetism_29.html)

### World model I: One world one logic



So: transcendental subject, Ultimate Universal Logic, not accessible to empirical subjects.

Oo: transcendental object, Ultimate Eternal Reality, not accessible to empirical subjects.

Si: empirical subjects.

Oi: empirical realities.

### One sentence :: one meaning

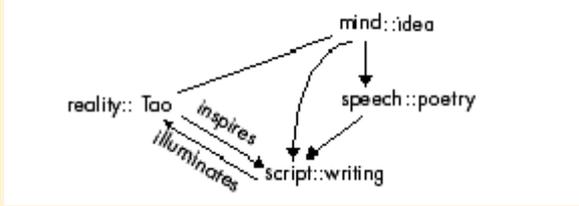
Perfectly realized by normed alphabetism. Isomorphism between written sentence and its meaning. Sentences are thought as names of objects (entities). This is the position of *realism* and *platonism*.

### **Semantic truth condition (Tarski):**

correspondence between meaning and reality.

## **Grammatology of Chinese Writing**

This scheme corresponds to the Chinese understanding of writing as it is exposed by Liu Hsieh. There are similarities in the pre-Aristotelian tradition of Plato and Pythagoras to find. <http://www.thinkartlab.com/CCR/2006/10/liu-hsiehs-grammatology.html>

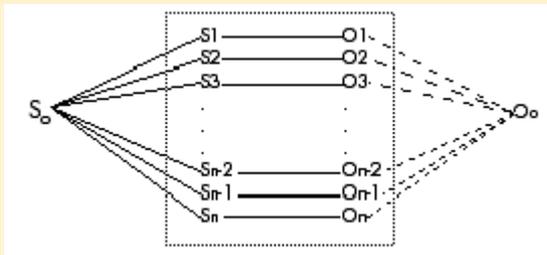


### **Gotthard Gunther**

*"That is, in holding to the ideograms, lies an unconscious insight of a massive asymmetry between spoken and written language. It is the written language, on which a main culture rests. It possesses an identity strength, which stands out clearly against the identity weakness of the spoken word."*<http://www.thinkartlab.com/CCR/2006/09/gnthers-asymmetry.html>

### **World model II: Many worlds one logic**

**Many sentences :: one meaning**

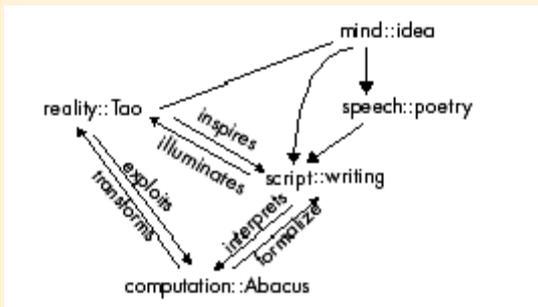


Situation of the interpretation of Chinese hieroglyphs by negotiation. Hieroglyphs are unifying many sentences in one scriptural pattern. The hieroglyphs have a mediating function to the plurality of interpretative sentences. Such sentences are not isolated and unrelated to each other. The model of thinking is not dominated by the concept of sentences or names. But by the written hieroglyphs which have to be interpreted. Thus, this model is relational and focussed on the interplay between writing and speech. But this interplay between scriptural and interpretational activities is not yet itself inscribed (conceptualized and formalized). It is realized in practise of communication in the Lebenswelt.

**Actional truth condition:**

True, iff accepted by all negotional partners involved.

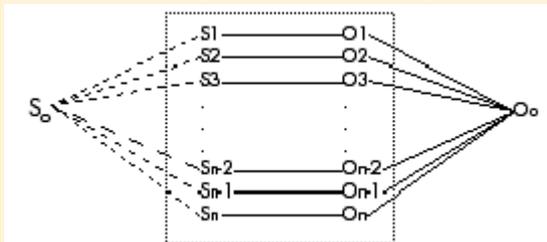
## Graphematics of Chinese Writing



The graphematical model of writing is emphasizing the practical aspect of schematic work in form of the computation by an abacus. This is in strict contrast to the still "logos" related writing of the grammatological model. Hence, this scheme is considering the influence of technological and cultural practices on the paradigm of writing. The emphasis is on the influence of the usage of the Abacus on reality and on the concept of literal and algebraic writing. It is thought that the development of the concept of zero and the organizational system of positionality is an interpretation of the practice of the usage of the Abacus in calculations. Hence, techniques of computations have influenced the general structure of writing. Especially the invention of the concept and notation of zero.

<http://www.thinkartlab.com/pkl/lola/Abacus.pdf>

**World model III: One world many logics**



**One sentence :: many meanings**

Polysemy of sentences solved by modal logic of alphabetism. Sentences are deliberated from their fixation to names. They have different meanings depending on different contexts which are themselves defined by sentences. Thus a kind of circularity is involved. This is the position of constructivism and relativism.

**Model theoretic truth condition (Kripke):**

True, iff true in all contexts.

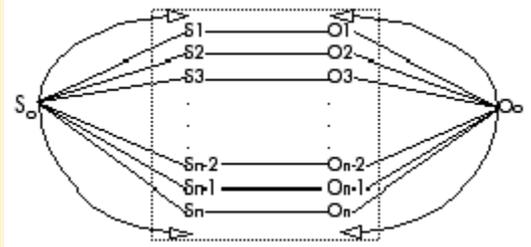
## Morphogrammatics and Polycontextuality

Proemiality of scriptural and hermeneutic procedures.

The mind is strongly embedded into reality. Reality is reflected by the minds activity of writing, speech and interaction. The mind is part of the technology of human activity. Human activity is embedded into reality.

[http://www.thinkartlab.com/CCR/2006/10/blog-post\\_07.html](http://www.thinkartlab.com/CCR/2006/10/blog-post_07.html)

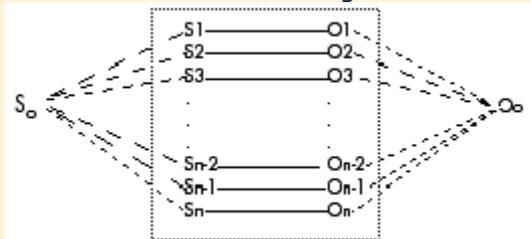
### World model IV: Dissemination



The *hegemony* of one world and one logic is destroyed and disseminated over a multitude of loci constituting a new world containing both, the rationality and the reality in it. The focus is on the *distribution and mediation* of the disseminated origins.

<http://www.thinkartlab.com/CCR/2006/09/temporal-structures-in-chinese.html>

### World model IV: Rejection



The *hegemony* of the origins is *rejected* and destroyed. But the focus is on its rejection and destruction, i.e, on the *autonomy* of the different rationality/reality relations and not on their mediation and localization inside a new world model like in the constellation of rejection.

The structural properties of the fourth world model is principally different from the 3 other world models. In contrast to them, it can not be modeled by one and only one model. Its model is paradoxical, over-determined, ambiguous and dynamic.

World model IV has space to place the 3 other models of writing/meaning in itself.

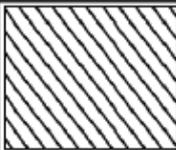
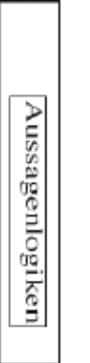
<http://www.thinkartlab.com/CCR/2006/10/semiotics-to-morphogrammatics.html>

### Many sentences :: many meanings

The plurality of sentences and meanings is not dispersed in isolated units but mediated to a compound structure of writing and interpretation. The interplay and chiasm between writing and meaning is primary. It is realized as *interactional* and *reflectional* activities between script and meaning on the base of a tabular conception of notational systems. This actional understanding of writing and meaning is dynamic, complex, open for its history and future.

[http://www.thinkartlab.com/pkl/lola/Godel\\_Games-short.pdf](http://www.thinkartlab.com/pkl/lola/Godel_Games-short.pdf)

## Table of models

	Monocontextuality			Polycontextuality
<b>Cosmology</b>	<i>One Logic:: One World</i>	<i>One Logic:: Many Worlds</i>	<i>Many Logics:: One World</i>	<i>Many Logics :: Many Worlds</i>
<b>Keno-grammatics</b>	○	○	○	
<b>Semiotics</b>		 WeltenSemantik	AL AL AL AL 	 Aussagenlogiken
<b>Model Theory</b>	Typentheorie Sortenlogik Klassenlogik	Prädikatenlogik Prädikatenlogik Prädikatenlogik	Manyvaluedness	 Aussagenlogiken  Aussagenlogiken
<b>Logics</b>	Classic Logic	Modal Logic	Mixed Logics	PolyLogics
<b>Authors</b>	Frege, Tarski Scholz	Leibniz, Kripke	Hegel, Wilson Grosssettestes	Günther, Axelos, Derrida, Kachr

MONDAY, FEBRUARY 12, 2007

## SLOGANS for the Chinese Challenge-Video

Since my last entry I learned that this Blog is best understood by the new generation of Chinese people for which the big economic, political and military "re-awakening" of China has become already normality.

They are the children of this enormous effort. They are traveling and studying all over the world - and experiencing the differences and foreignness even to their own people abroad.

They love their country, are proud of it and don't want that its specific Chinese culture get lost.

While adapting to the Western culture, they didn't had a chance to be specially educated into the specific characteristics of Chinese culture.

Neither into the Ancient nor into Mao's Cultural Revolution.

To be more comprehensible to this new generation I will start to publish a series of Video Clips to the topics of this Blog.

With the help of this Video Clips it will be easier to understand the more elaborated texts of this Blog and my [Website](#).

## SLOGANS

The Chinese Challenge:: 中国挑战

Hallucinations for Other Futures

***What can we learn from China that China is not teaching us?***

**Where are we now?**

**Europe**

Europe is lost in its search of the dying and buried roots in Greek heritage.

**US-America**

The success of America is based on the rejection of European roots.

Today, the US-American dream is exhausted and has come to a closure.

The decline of America is rooted in its lack of own roots.

**China**

China has found its roots again to build a future.

## What makes the difference?

Main cultures are always depending on their way people are writing.

Writing in general is the most abstract mechanism and technology of cultural live.

Western culture depends on alphabetic writing.

Its calculation and computing is based on the Indian concept of Zero.

The thinker Leibniz had a first European hallucination about Chinese writing.

He conceived in his hallucination the idea of a General Language (Lingua Universalis) as a base for negotiable and calculable communication between peoples and nations.

This kind of alphabetic and numeric writing is exhausted and has become a source of destruction and self-destruction of the world and human beings.

*Western* way of writing is not prepared to encounter the challenges of the future of the world.

*China*, for the next epoch of humanity, has an advantage to the West: it has its scriptural resources not yet exploited.

The Chinese way of writing is tabular, multi-dimensional, embodied, open, complex and based on the experiences of the oldest cultural tradition of humanity.

The Chinese Challenge today is not its new re-awakening economic, political and military power as the West is fearing and economically exploiting,

The Chinese Challenge is the re-discovery of the rationality of her writing system to come as the roots and resources of a revolutionary new technology for the future.

The Chinese Challenge to China is to preserve its own culture in the process of the transition to a new epoch of humanity.

## New Hallucinations?

What we need today is a notational system which would bring together the old wisdom of Chinese writing culture and the success of modern Western technology. How could it be designed?

How could it be hallucinated?

The Chinese Challenge :: 中国挑战-Video <https://youtu.be/jCNcFmPI-9E>

March 2007 / [http://www.thinkartlab.com/CCR/2007\\_03\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2007_03_01_rudys-chinese-challenge_archive.html)

THURSDAY, MARCH 29, 2007

## Proto-Structure of Diamond Strategies

*„Everything is true: not everything is true; both, everything is true, and not everything is true; or, neither everything is true nor is everything not true. This is the teaching of the Buddha.“ Madhyamika Karika*

### **Beyond names and propositions, again**

Without getting lost into the deepness of philosophical and grammatological studies we can apply the mechanism of *proto-structure*, i.e., the activity of tetraktomai, i.e., to use the tetraktys, on a more common arena of emotive-cognitive organization in communicational situations. The *Diamond Strategies* are obviously operating beyond notions and statements, thus, if applied in therapeutic situations, they are not primarily a *"talking cure"* (Freud).

Our orientation in the world is mainly guided by sentence/notion based thematizations. To diamondize, like to tetraktomize, is to abstract and to subvert this semantic level of thematization in favor of its dynamic patterns, i.e., the morphograms of interaction/reflection of communication.

The process of morphic abstraction is pushed by questioning the existence (ek-sistenz, Heidegger) of the communicand (client).

The existence is what can be abstracted from the historic and local stories of the person involved. But such an existence is not identical with an identical kernel of a self or ego of a person(a) (mask).

In Ancient time of Pythagoras and the Chinese and Indian thinker, this procedure was not an abstraction but the genuine and direct way of approaching reality.

In a form, reduced to logocentric purposes, the diamond is well known in the West since Aristotle as the *Square of Oppositions*, and it had many modern applications in logic (Belnap, Fitting), psychology (Piaget), semiotics (Pierce), linguistics (Greimas), etc. Today general studies of the *"Square of Oppositions"* are promoted by the Universal Logic group which is running its *2nd World Congress* at Xi'an, China.

Obviously, the *Diamond Strategies* are not excluding such logical studies of the Square but are not to gather under their umbrella.

There are many existential and emotional strategies today to defend ones established attitudes against a new way of thinking and thematizing the world. One is well documented in the Gödel-Günther-Correspondence.

To overcome such barriers, the *Diamond Strategies* always had been of great help.

## **Proto-Structure of the Diamond Strategies**

Also *deconstruction* is not simply a method, Derrida gives us some general strategies of deconstruction.

### **Reversion of hierarchy**

*"In a traditional philosophical opposition we have not a peaceful coexistence of facing terms but a violent hierarchy. One of the terms dominates the other (axiologically, logically, etc.), occupies the commanding position. To deconstruct the opposition is above all, at a particular moment, to reverse the hierarchy." (Derrida, Positions, 56-57).*

## The double gesture displacements

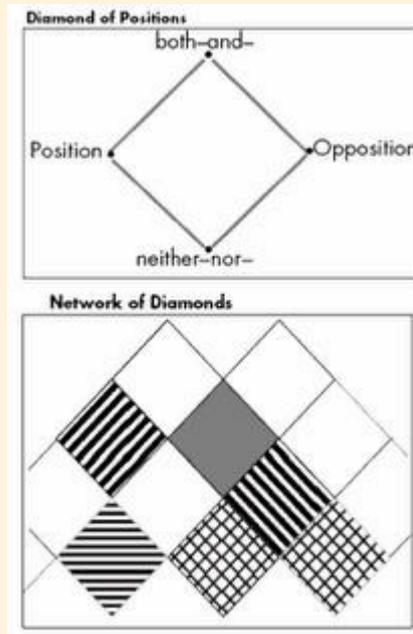
*"Deconstruction must through a double gesture, a double science, a double writing, put into practice a reversal of the classical opposition and a general displacement of the system. It is that condition alone that deconstruction will provide the means of intervening in the field of oppositions it criticize and which is also a field of non-discursive forces." (Derrida, Marges, 392)*

Interestingly, the Diamond Strategies are incorporating both Ancient attitudes:

1. The tetralemmatic and tetractic way of conceiving truth (Buddha, Pythagoras), and
2. the pragmatic or praxeological approach of Chinese thinkers to the relevancy of statements as opening futures instead of claiming eternal truth.

## Let us play the game of the Diamond Strategies

*From the frozen attitudes of our hierarchical thinking and feelings to the endless flow of inventing and co-creating our futures in the open chiasm of systems of multiple opposites.*



### **Step one: Position (Problem, Conflict)**

Describe your state or situation of the moment with a good, short but precise statement. It's your statement of position, affirmation, it's your starting point of the game.

**Question1:** *What is the situation/constellation you want to explore/re-solve?*

Go with your personal starting statement as deep as possible into your emotional and/or cognitive state. Ask yourself about your state formulated in your first starting statement. Elaborate the semantical and emotional context of this statement. Take your last/best sentence of your exploration of your feelings and thinking of your situation and write it down.

### **Step two: Opposition (Subversion, Solution)**

Create the opposite of your state, of your belief statement, of the sentence which describes your situation most concrete.

**Question2:** *What is the opposite of your starting position?*

Our language gives us a lot of possibilities to build opposites: logic, grammar, semantics, word games, phonetics, writing, gestures etc. It's not only negation, you also have inversion of all sorts of order in a sentence or between sentences, dualities, reflections, mirroring and many other methods of translating a statement into it's opposites.

### **Example**

Position: Nobody loves me.

first opposite: Everybody loves me.

second opposite: Everybody hates me.

third opposite: Everybody loves you.

I would like this one as a nice opposite of *"Nobody loves me."* :: *"I love anybody."*

What are the connections between the position and the opposites? You are discovering a *Semantic Field* of statements between position and its oppositions.

### **Third step: (neither-nor-): sovereignty**

Change between your two states (position vs. opposition). Take position and all feelings for the one, and then take all feelings and surely also all thoughts for the other one.

**Question3:** *What's your neither-nor of position/opposition?*

Change and feel what happens when you are changing from position to the opposite. Play this transition game as often until you feel and think that both are equivalent (like light/shadow). Then you will feel immediately that you are free from both: you are not the one and not the other.

You as a subject, as a person you are neither this nor that. This insight and this feeling, that you are not identified with one of the sides of the opposite is your third position. Here you are free, you have the most possible distance to all of the world. Then, how do you see the two other positions, how do you feel them? Go back to the first and to the second. Which do you like most? Play the game until you feel all three positions as equally relevant. All three belongs to you.

### **Fourth step: all of that at once - pure richness**

But this is not all we can do. We can also have the opposite of this distance and sovereignty of the 'neither-nor'. It is the fourth position of 'both-at-once'.

Now you have often changed your positions and you had have very strong feelings and insights in this three positions and transitions. You will discover that all this belongs to you. And not only one after the other but all at once. You are all that at once. You are both position and opposition.

**Question4:** *What is your both-at-once of position/opposition"?*

### **Re-Solution**

Then you make the complete trip: you go around the 4 positions in at least 6 primary steps, you have 24 permutations of your primary steps- that's your universe of experience(s) at this very first step within the Diamond Strategies.

### **Exploration**

Each station of the Diamond elaborated serves as a new starting point (Position) for further diamondized explorations of your complex emotional/cognitive space.

With the game of the Diamond Strategies you have deliberated yourself from your fixation on one point of view in describing, reflecting, feeling, deciding, organizing etc. your life, your future of your organization or company.

## **Opening existential futures: Enabling vs. disabling**

All of the four positions of the first Diamond Strategies can be asked about the future possibilities, about their perspectives, about their horizon of new behaviours, etc.

You can ask: What enables me this, which are the new possibilities for me, what new chances are opened up by this state, position etc. for me.

### **First Step: Enabling vs. disabling**

Take one of the 4 positions of the Diamond, then ask one of the questions about enabling/disabling.

1. What is the position enabling/disabling,
2. What is the opposition enabling/disabling,
3. The neither–nor– of enabling and disabling,  
„What neither enables nor disables me A?“
4. The both–and– of enabling and disabling,  
„What both at once enables and disables me A?“

## Second Step: Iterations

You can also freely repeat and alternate your questions about enabling and disabling, thus producing a grid of enabling/disabling positions.

## Diamond Strategies of Thematizations

After the more *existential* application of the Diamond Strategies we are applying them onto the linguistic and grammatological situation of notion/proposition.

### Designing the Diamond

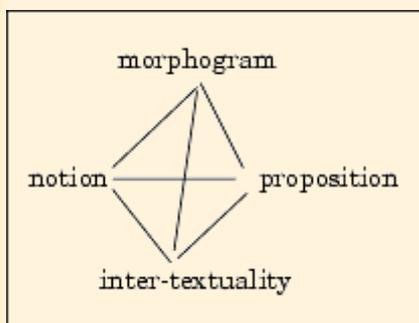
A possible Diamond of notion/sentence can be established as:

Notion: name-based conceptualization,

Proposition: proposition-based thinking,

Morphogram: neither name nor proposition,

Inter-textuality: both at once, name and proposition.



### Iteration of the Diamond

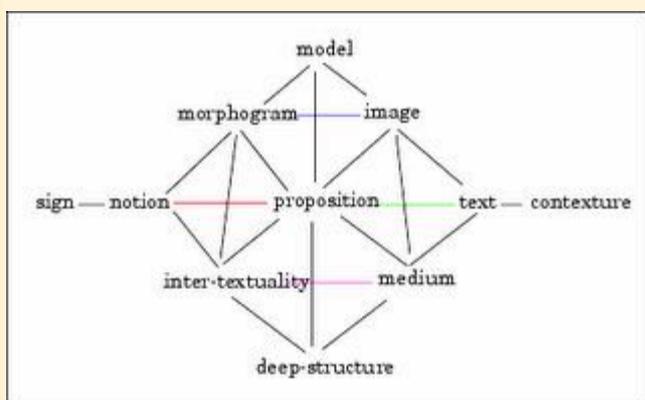
notion--->proposition--->notion

### Accretion of the Diamond

proposition as position, new opposition could be text.

morphogram as position, new opposition could be image.

inter-textuality as position, new opposition could be medium.



The diagram shows a *possible* accretion of the first diamond. There is no strict necessity to develop the diamond this way, other decisions for an interpretation of the knots can enter the game, producing other interpretations of diamonds.

### Diamondize vs. Syllogisms

Trees are graphic representations of the notional entailment relation which is at the base of logical thinking, deduction, not restricted to Aristotelian syllogism only.

It is of importance to understand that such an accretion is not building a subordinating order, like a diaeresis, thus, it is not a pattern founding deduction, syllogism and linear or tree-like conceptualization. The knots of this diamond, understood as a proto-structure, can be themselves starting points, origins, for binary trees.

Because of its commutative structure, the graph of the proto-structure is a *grid* and has *neither an origin nor an end*. Thus, it might be slightly misleading to write the proto-structure with a beginning (1:1) as it is presented in Gunther's papers. This happens for notational purpose only.

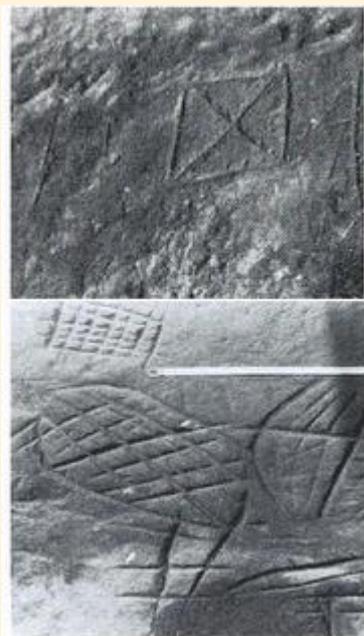
posted by Rudolf | 5:03 AM | 0 comments [links to this post](#) 

## Neolithic Incisions

### **Excursion: Some early orientational systems**

At a time of human development, long before the advent of names, notions, sentences and numerals, and images too, there had been *incisions*, structuring the orientation in the world and co-creatively enabling the advent of human beings.

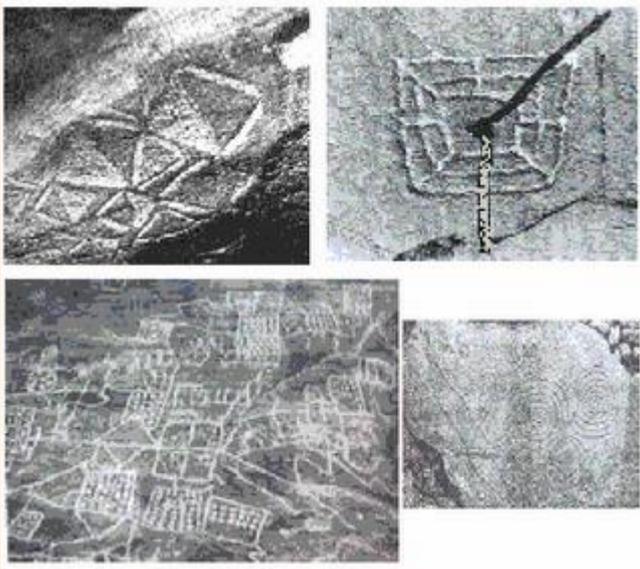
It is the work of the archeologist Marie König to have discovered those early incisional systems.



Interestingly, most of the basic patterns are at place.

Diamonds, grids, circles, points, and systems of different patterns.

Not necessarily binary trees?



It seems obvious to understand these patterns as cosmic orientation systems. And obviously not being connected to cognitive and linguistic units, like propositions, names, numbers and images, despite their importance, probably, as the very first orientational writing systems. *"Erst die griechischen Naturphilosophen verurteilten die Auswüchse des mythischen Denkens. Sie begannen, ein neues Bild vom Kosmos zu entwerfen und leiteten damit eine neue geistige Entwicklungsstufe ein. Diese Zeit wird gern als der Anfang des europäischen Denkens angesehen, im Gegensatz zum mythischen Denken, das unwissenschaftlich, ungeistig und unrealistisch zu sein schien. Weiter als bis zur Mythologie reichte weder das Gedächtnis der Menschheit noch das Zeugnis der Schriftquellen zurück, und man suchte den Anfang der Kultur dort, wo die Schrift begann, also in den orientalischen Hochkulturen, die in Wirklichkeit einer hochentwickelten geistigen Entwicklungsstufe zuzurechnen sind. Damit verlor unsere Kultur eine Dimension der Tiefe. Wir hatten unseren geschichtlichen Ursprung verloren."* (presented by Esther Keller-Stocker) [http://www.theologie-vision.eu/bewusst/marie\\_koenig/koenigII.htm](http://www.theologie-vision.eu/bewusst/marie_koenig/koenigII.htm)  
Marie E.P. König: *Am Anfang der Kultur, Die Zeichensprache des frühen Menschen*, Gebrüder Mann Verlag Berlin 1973.

["Not until the Greek ancient philosophers condemned the excrescences of mythical thinking. They began to sketch a new picture of the cosmos and introduced with it a new spiritual stage of development. In contrast to the mythical thinking, which seemed to be unscientific, unspiritual and unrealistic, this epoch is regarded gladly as the beginning of European thinking. As up to the mythology neither the memory of mankind nor the testimonial of the sources of writing continued to go back, and one looked for the beginning of culture, where the writing began, thus in Eastern advanced cultures, which in fact are part of a highly developed spiritual stage of development. Thus our culture lost a dimension of profoundness. We had lost our historical origin."]

posted by Rudolf | 2:43 AM | 0 comments [links to this post](#) 

## Chinese Centralism?

# Beyond propositions, names, numbers and advice

*"But what has still not been seriously investigated in modern linguistic analysis during the course of secularization of myth, religion, and metaphysics is the increase of secularization on human language. In its insect like persistence, in which it naively supposes that Man and not the*

*universe as a whole is the proper subject of speech and thought, it has completely forgotten God and myth, which both await their metamorphosis." G. Gunther*

## Summary

The question arises: *Is there any rational structure beyond name- and sentence-oriented thinking?*

Or: *Is there a rational operativity beyond alphabetic sign systems?*

In an idealized form, both, name- and sentence-based thinking, are depending structurally on trees. Well known as binary trees of diaeresis or Porphyrian trees. Today as XML trees. The same holds for generalized sign systems, i.e., semiotics. But today, the tree model of organizing knowledge is producing more problems than it solves in complex computing.

Post-modernism has hallucinated the metaphor of net or *rhizomatic* writing, but didn't provide any operativity to be useful for real world problems, like programming. Media theorists are fantasizing about the structure of the Web as decentralized, open, complex, heterarchic and not hierarchic at all. They are lost in the chaos of *surface-structures*, not being able to recognize the strong and strict mathematical centralism and hierarchic organizational order of the Web's deep-structure.

The acceptance is slowly growing that pre-modern thinking of *Pythagoras* in the West and *Ancient Chinese* is neither name nor sentence guided, hence not to be organized by any tree structure. How could such a structure look like? The simplest structuration of Ancient thinking can be supposed as a pre-semiotic *proto-structure*, realized in history by a *triangle* model, i.e., a commutative graph, by the Ancient (Pythagoras, Yang Hui, later Blaise Pascal). Each knot of a triangle model is over-determined and therefore logically contradictory.

This structure was re-discovered by the Western thinker Gotthard Gunther for the purpose of mediating number and notion as well as thought and will and exposed in his theory of polycontextuality and kenogrammatics. The proto-structure is offering a devise to distribute and mediate a multitude of binary trees and studying their interactivity and reflectionality in an operative and computable way. A similarity between such a distribution of binary trees over the proto-structure and on the other side, the multitude of spoken Chinese languages and their common scriptural system is proposed.

It is my experience that there are strong existential and emotional defense strategies and barriers which are preventing people from learning about such ways of pre-semiotic thinking. Thus I introduce a format to deal with such anxieties: The *Diamond Strategies*.

Surprisingly, the Diamond Strategies are in a good correspondence and harmony with Ancient Indian and Chinese formats of thinking and acting as well with Gunther's concept of proto-structure.

Of the many practical applications possible, only one question is proposed, re-opening a new round of thinking the *Chinese Challenge* aiming to surpass the common *Double Blind Spot*:

# Can the Chinese Centralism be the same as the Western?

## 1. Name-oriented languages

Modern linguistics as the study of sign and languages systems in general, has to be separated from the philosophical decisions to focus on certain language interpretations, like the noun-, proposition-, action-oriented understanding of language. The aim of this study is to make some steps toward a reasoning beyond such decisions for propositions and their hierarchy (diaeresis) in favor of a new way of orientation and computation guided understanding of thematization and symbolization by the decision for polycontextuality and kenogrammatics.

Chad Hanson writes about the linguistic analysis of Chinese language by Chinese thinkers. *"Chinese linguistic thought focused on names not sentences."*

*"This explains the anomaly of treating all terms as 'names,' but fails to explain the similar treatment of adjectives and verbs. Lack of function marking is again part of a possible explanation. Adjectives used in nominal position did not undergo abstract inflection so theorists treated 'red' and 'gold' as analogous. They could associate descriptive adjectives, like mass nouns, with a range or "extension" and view adjectival "names" as distinguishing one range from others. The ranges distinguished by different "names" can overlap. In those cases, they would use compound "names." Distinguishing between the ways adjectives and nouns worked in compounds produced puzzles for pre-Han theorists."*

*"Zilu said, 'The ruler of Wei awaits your taking on administration. What would be master's priority?' The master replied, 'Certainly--rectifying names!' . . . .*

*If names are not rectified then language will not flow.*

*If language does not flow, then affairs cannot be completed.*

*If affairs are not completed, ritual and music will not flourish.*

*If ritual and music do not flourish, punishments and penalties will miss their mark.*

*When punishments and penalties miss their mark, people lack the wherewithal to control hand and foot.*

*Hence a gentleman's words must be acceptable to vocalize and his language must be acceptable as action.*

*A gentleman's language lacks anything that misses--period.(13:3)"*

<http://www.hku.hk/philodep/ch/lang.htm>

A chain of terms is build: rectification/names -> language -> ritual/music -> punishment/penalties -> control  
==> acceptance of vocalization/action.

This chain of terms, from rectifying names to the acceptance of vocalization and action, suggests a linear and hierarchic order of entailments. There are no chiasitic elements or relations involved. But there is also no system mentioned in which the hierarchic development takes place. Thus, it is open to interpretations.

### Cyclic and chiasitic order

If, on the other side, it is said, that *"war becomes peace and peace becomes war"*(Confucius, Heraklit) a cyclic and chiasitic (dialectic) order is established. What is basic in this approach

are not the names and notions involved but the rules of the interplay between them. This chiasmic model, even still archaic, is neither sentence- nor notion-based. The change, the differences of the play are primary to the notions involved. Because of its chiasmic form, the whole statement is in itself also not strictly a sentence or proposition in the definitional sense. Because a sentence is based on the hierarchy of subject and predicate.

Chiasmic forms are circular, violating the hierarchy of propositions. Thus, the operator "and" is not simply a logical or linguistic conjunction but a term for mediation between the two order relations between *war* and *peace*. There is no reason to thematize chiasmic formations as name-based. This change as such is neither name- nor proposition-based, but a chiasmic interplay between the terms.

In the terminology of polycontextural logic, this situation is modeled by the proemial relationship.

## 2. Thought, will and numbers

### **Name/proposition/contexture or sign vs. kenogram**

Before the digitalists have overtaken Western ideology, the philosophical trend of the "linguistic turn" was dominating the theory of science as "analytic" philosophy. Sentence, statement, proposition, etc. based thinking was confronted to noun/name/notion-based thinking. Their conclusion was, the one who is not opting for propositions is poised to be stuck in the archaic name-oriented approach.

Gödel and Gunther didn't decide for the linguistic turn. Nor had they been lost in the past of name-oriented disorientation.

Now, it is said, that Ancient Chinese thinking is not sentence-based, thus it has to be noun-based; TND. "*Chinese linguistic thought focused on names not sentences.*" Contextures and even more, kenograms, are not involved into this logocentric game of names and sentences. Not even in texts and contexts, and their inter-textuality as it was introduced and studied mainly by the French structuralists and deconstructivists.

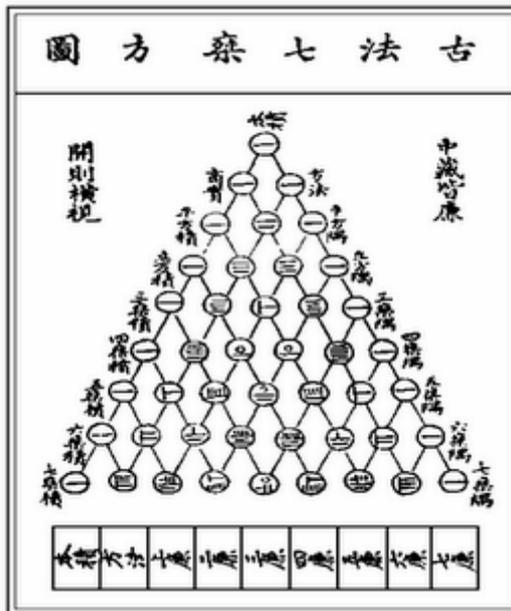
Kenograms and morphograms are understood as patterns of actions. In Günther's words, they are the general "Codex für Handlungsvollzüge".

### **Ancient pragmatic advise: Tetraktys as a device**

Like Chinese thinking, Pythagorean thinking was action-oriented and not concerned with the eternal truth (of axiomatic systems). Action-orientation is not simply the pragmatic dimension of logocentric sign systems.

The Pythagorean *tetraktys* was not primarily a concept but a device: *to do the tetraktys, i.e., to tetraktomai*. To tetraktomai is to produce the grid of the proto-structure. The tetraktys doesn't stop with the number 4, it starts with it. But in ancient time, there was no theory of action but material advices for a better life, only. Learnable in secret schools from teachers or from Guru's.

Today, advices have to become programs to compute new chances in a changing world.



**Yang Hui (楊輝, c. 1238 - c. 1298)**

<http://www.roma.unisa.edu.au/07305/pascal.htm>

**Pascal Triangle:**

<http://www.csam.montclair.edu/~kazimir/construction.html>

**Gotthard Gunther's Proto-structure**

[http://www.vordenker.de/ggphilosophy/gg\\_life\\_as\\_polycontextuality.pdf](http://www.vordenker.de/ggphilosophy/gg_life_as_polycontextuality.pdf)

[http://www.vordenker.de/ggphilosophy/gg\\_identity-neg-language\\_biling.pdf](http://www.vordenker.de/ggphilosophy/gg_identity-neg-language_biling.pdf)

## Hierarchy and heterarchy of thinking and action

Occidental philosophy is mainly thought-orientated. Thoughts are represented in statements and statements are represented in written sentences. Then, on the base of sentences, action can happen. Thus, scripturality is secondary. In other words, thoughts in established Western philosophy are first, will comes second. But Western technology is on the way to turn this hierarchic order into an action-based paradigm. Until now, this inversion happens proposition-based, i.e., the logic of action and programming is still the logic of propositions. This happens in different forms, sometimes hiding its logocentric origin, like with the lambda calculus.

There is no reason to belief that a simple inversion of the hierarchic order is of any real help. Both systems are more or less isomorphic and are building a symmetric dualism. There is not much research to observe which would intend to change this situation of semiotic based hierarchy.

Chinese thought, it was said, is *action*-based. But as we have shown often enough, this paradigm of action is not based on the same world-model as the Western sentence-based. The crucial asymmetry between the Chinese writing system and its linguistics are building the deep-structure of its action based paradigm. Hence it would be a serious *mismatch* to identify both concepts, the Chinese and the Western concept of action.

But Chinese thinking has not yet considered to *formalize* the heterarchic operative structure of its writing system. We can say, the West achieved to formalize its phonologic writing system to the highest perfection. The results are now propagated globally as the ultimate ratio and universal truth.

### **3. Diaeresis on Proto-Structures**

#### **Logic systems distributed over the proto-structure.**

Linguistic and logical structure of diaeresis: *genus proximum/differentia specifica*.

*Up and down; the same.* (Diels)

But the conceptual use of the triangle is in strict conflict to the binary structure of diaeresis. The way up and the way down have not to coincide.

Diaeresis is applicable to both approaches, the sentence- and the notion-based.

#### **Different numeric interpretations of the proto-structure**

The abstractness of the grid enables not only different notional or symbolic interpretations but is also serving for different numeric calculations. The closest numeric interpretation of the proto-structure is given by the fact of the number of the knots of the grid. This corresponds exactly to the Pythagorean numeric interpretation of the proto-structure. In contrast to the number of knots in the dyadic tree of the Platonic diaeresis, which corresponds the series of 1, 3, 6, 10, ... , the Pythagorean series of knots corresponds to 1, 3, 7, ... Thus differing at position 3 with  $6 \neq 7$ .

#### **Plato's Diaeresis onto Gunther's Proto-Structure**

Strictly separated diaeresis systems, i.e., binary trees, localized at their common proto-structure, are offering communication as semiotic morphisms (Joseph Goguen) between them. Overlapping diaeresis systems are producing conflicts in communication because they may hide the lack of a common history. At the point where communication seems to be realized, mismatches are produced and their reasons are hidden as blind spots. That is, the semiotic isomorphisms between the different diaeretic systems can not be established because they are violating the condition of separation.

Both diaeretic or semiotic systems have to be disjunct in respect of their elements to enable conversation between autonomous partners. Only if the overlapping can be reduced to an overlapping of the full trees, the conflict is resolved in coincidence. An overlapping of knots (terms) does not mean that the terms have the same meaning. Simply because they are defined by different notional backgrounds (histories).

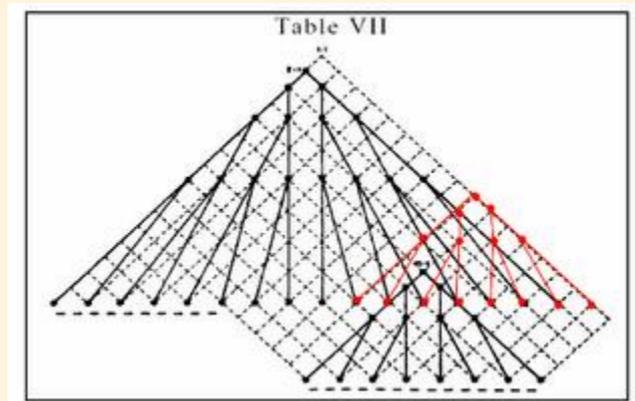
#### **Diaeresis, binary trees and proto-structure**

From Plato's hierarchic pyramids, Porphyries notion-trees to the tree structure of XML. Trees, everywhere. Diaeresis is not an esoteric structure or an ancient and obsolete method of organizing knowledge. In its form as binary trees it has become a nearly universal method of thinking, computing and organizing knowledge and actions.

But with trees we are getting into trouble. It is also not enough to have forests of trees instead of a general tree. Even the trees in a forest may play some kind of multitude, there are no mechanisms at all to realize interaction and reflection between trees. What's between trees is not itself a tree.

Different trees can be mapped onto the proto-structural grid. Gunther has given some examples of binary trees on proto-structures with different origins and common overlapping

at proto-structural places. This can be freely extended to overlapping of binary trees, not only on common proto-structural places but at overlapping places of the trees themselves. Gunther's table VII shows, in black, trees with different origins and proto-structural overlapping. The added red tree is overlapping with another tree, in black, additionally at common proto-structural places. The black tree is producing a differentiation of 3 decisions to meet the red tree which has at the common places realized a differentiation of only 2 decisions.



As a first step to escape the hierarchy of thinking and will, a chiasm between both has to be established. That is, a distribution and mediation of the thought/will relationship has to be installed. This, as a second step, is possible only on the base of non-propositional, non-semiotic deep-structures which are offering a grid to place the thought/will relationship over different loci. The tree-structure of diaeresis corresponds to the rational thinking, the placement of the tree in the proto-structure is not itself a cognition but a volitional decision.

### Interactions of trees onto the proto-structure

In this constellation, Table VII, there are, for the red tree, 7 overlapping situations and 8 non-overlappings of the total of 15 possibilities of the red tree. The black tree, with its different origin has a longer "history". With its 31 situations, only 7 are overlapping together with the red tree. Thus, the harmony of coincidence is not balanced. The red tree has only 8 "free" positions, while the black tree has 24, thus, having a more complex "history".

Interestingly, the overlapping of the red tree with the black tree at the 7 situations is based on a "history" of nil common situations. What is common to both is their being distributed over the proto-structural grid and their meeting at 7 common situations. This is the *global* analysis.

A focus on the *local constellations/situations* has to consider the equality of the common positions in their locality. That is, both arrived at those locations and from a local point of view it doesn't matter how they arrived and from where. Not enough, there is even another binary tree in the game. Its origin is located at another position. Both, the red and the black tree, are involved in proto-structural overlappings with this second (black) tree.

### Double Blind Spot

With only a one-step move of the root of the red tree, a fully harmonic overlapping results,

with a base, again, of nil common positions. This kind of overlapping is locally suggesting full harmony; globally, it is maximal under-balanced producing the possibility of highest mismatch. Because there is no common "history" realized by the different trees, what seems to be harmonic coincidence can turn out to be a *mismatch*. They are also blind for the fact of being positioned in a proto-structural grid. This kind of overlapping should be called a *Double Blind Spot*. Probably the *conditio humane* of actual inter-cultural communications.

#### 4. Is Chinese centralism the same as the Western?

*"Modern society is a polycentric, polycontextural system. (...) Consequently there must be transjunctional operations, which make it possible to go from one contextuality into another, still marking which differentiation is accepted or rejected for specific operations."* (Luhmann 1996).

<http://www.qvortrup.info/lq/pdf-misc/Hypercomplex.pdf>

The multitude of Chinese spoken languages can be seen as a distribution over the uniqueness of the Chinese writing system. This is not only a multitude of different interpretations of a character in the sense of a polysemy of meanings, but the different interpretations are offered by the hieroglyphs the space to be distributed. Thus, different languages incorporating different points of view are mediated by the uniqueness of the hieroglyphic writing system.

Such a system is poly-centric and polycontextural, not only in a linguistic sense but also politically, economically and culturally. With each spoken language, or with each contexture established, the speaker will follow, ideally, the logical structure of diaeresis and its principle of tertium non datur (TND).

Therefore, it is reasonable to think of a distribution of different diaeretic systems mediated by their common written background or hieroglyphic deep-structure of the writing system. *"Polycentrism characterizes a society that cannot observe itself or its environment from a single observational position—or, rather, from within a single observational perspective or "optics"—but has to employ a large number of positions of observation, each using its own individual observational code to manage its own social complexity. This implies that no universal point of observation can be found. Furthermore, this means that a large portion of these observations are observations of observations:[...]."* *ibd.*

It is obvious, that a similar mediation of different spoken languages, like in the Chinese case, is not accessible for Europeans. If a Norwegian and a Catalan person or administration want to communicate, they don't have, despite their common general European culture, a common system of linguistic or semiotic reference.

Today, this problem of communication is basic for the development of a *Semantic Web (Web 3.0)*. The hope for a solution is found in a common general ontology/taxonomy which is denying all the historic and cultural differences between the different European languages. Such Semantic Web activities are in favor for machine-readability. It further turns out that the concept of European polycentrism is a myth proposed in a notional format, lacking any operativity; supporting in practice by necessity strict political and juridical centralism.

It is said, that we have not to be slaves of our historic writing systems. We can think against

their restrictional tendencies. Yes, with which tools? And are not the tools determining our results?

Today, all sorts of narratives about complexity, interactivity, mediation, autonomy and self-organization are on the market. But to talk and write *about* a topic is not to produce an *operational* calculus able to master it.

Thus, after the introduction of these grammatological exercises, and to escape the common *Double Blind Spot*, the question naturally arises:

*Can Chinese centralism be the same as Western centralism?*

April 2007 / [http://www.thinkartlab.com/CCR/2007\\_04\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2007_04_01_rudys-chinese-challenge_archive.html)

MONDAY, APRIL 09, 2007

## The Chinese Challenge Video-Stills



### 《中国的挑战：一个新猜想》

The Chinese Challenge

—— 对"中国挑战"说的一个注释

Hallucinations for Other Futures



Donna and Shell

我们能从中国人没有教我们的地方学到什么？

What can we learn from China that China is not teaching us?



Europe is lost in its search of the dying and buried roots in Greek heritage.



我们能从中国人没有教我们的地方学到什么？



What can we learn from China that China is not teaching us?



今天，美国的美式梦想气数已尽！

Today, the US-American dream is exhausted!



今天，美国的美式梦想气数已尽！



美式梦想的成功已经接近了尾声；而老欧洲还由她的古希腊起源支配着，摆脱了欧洲限制的美式梦想现在迷失了根本，失掉了设计未来的精神源泉。

While Old Europe is still occupied with its Greek roots, US-America, who got rid of these European limitations, now, is missing roots as inspirational resources to design futures.



The necessary decline of America is rooted in its lack of roots.



Today, the US-American dream is exhausted and has come to a closure.



The Chinese Challenge to the West is the re-discovery of a new way of thinking, again



中国对西方的挑战不是经济的、也不是政治的或者军事的；苏醒的技术中国和经济中国这个事件并不构成对西方的所谓的"大挑战"，真正的挑战是重新发现她的文字系统，并设计出新的理性形式系统，就像创造新的数学和新的编程语言一样；是面对一个崛起的中国我们是否做好了充分的准备。



The Chinese Challenge to the West is not economical, political or military. It is not the event of a re-awakening economic and technological China which is the Grand Challenge to the West but the possible re-discovery of the operability of its writing system for the design of new rational formal systems, like new mathematics and new programming languages.



China has found its roots again to build a future.



China's historical advantage to the West is that its scriptural resources are not yet exploited.



中国挑战向中国将保存它自己的文化在与人类一个新世纪的转折过程中。

它怎么可能做? 我们  
How can it be done?



let's do it!



The Chinese Challenge to China is to preserve her own culture in the process of the transition to a new epoch of humanity.



它怎么可能做? 我们做它!  
How can it be done? Lets do it!



它怎么可能做? 我们做它!





它怎么可能做? 我们  
How can it be done?



我们做它!



The Chinese Challenge to China is the chance to re-discover its own way of thinking, again.



let's do it! 我们做它!



我们做它!



Hallucinations always had been at the beginning of cultural revolutions.  
It always has been the job of cultural administration to deny it.



猜想总是文化传统革命的前奏，总是为文化管理者所拒绝。



**Stills from the Video** "The Chinese Challenge::中国挑战" about an idea of the new role of China and Chinese thinking beyond economical, political and military matters in English and Chinese by Shell Ni (film maker, Shanghai/London) and Donna Rosso (actress, Ireland/Glasgow) recorded spontaneously by me, holding the wee camera into the air, at a dark Sunday afternoon at the Garnethill/Glasgow viewpoint, edited by Ann Vance (film maker, Glasgow).

<http://www.youtube.com/watch?v=jCNcFmPI-9E>

**June 2007** / [http://www.thinkartlab.com/CCR/2007\\_06\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2007_06_01_rudys-chinese-challenge_archive.html)

WEDNESDAY, JUNE 20, 2007

## A Schematic Calendar of Epochs

One of the big successes of Western globalization is the globalization of its understanding of human nature. There is one and only one such understanding. And this is the Western concept of human nature. Other understandings of human nature are simply not yet matured to the Western model.

This judgement, obviously, is applied to the Islamic world and it is thought that the new Chinese awakening will soon follow the Western model of humanity with all its noble achievements.

The idea of different ways of realizing humanity, different types of human self-definition, is taboo.

It is accepted only backwards to distinguish high civilizations from Primitive cultures. A projection into the futures is damaged by the well known attempts of the German Uebermensch ideology. Thus, to stay clean, we have to believe in Americanism and its ideology of humanity and human rights.

This is not in conflict with the American dream of *TransHumanism*. TransHumanism is not questioning the very idea of human beings but tries to augment pragmatically its very realization.

Funny enough, Gotthard Gunther, with his cybernetic studies from the 50s, is one of the Grand fathers of TransHumanism .

As a philosopher of history, Gunther proposed another model of anthropology and civilizations which is open to futures and able to understand the past. Because of its structural conceptuality it is as neutral to ideologies as possible.

Gotthard Gunther proposed a theory of a connection between historical epochs and the structural complexity of their logics used in practice and reflected in science. The complexity of a logical formation was, at this time, considered as the *many-valuedness* of a logical system.

- The epoch of *Animism* is considered as the epoch of 1-valuedness.
- The modern *Occidental*, esp. European epoch is connected with 2-valuedness.
- The post-modern *US-American* epoch is proposed as 3-valuedness.
- It seems that the post-Occidental epoch of *Chinese* thinking is linked with 4-valuedness which is opening up the pre-semiotic patterns of morphogrammatcs and general m-valuedness. This step is not yet considered in Gunther's approach.

At the time of the proposal of his theory of Western civilisation, topics like morphogrammatcs had not yet been discovered.

It has to be mentioned, that Gunther's concept of many-valuedness is *poly-contextural* and thus principally different from the logical multiple-valuedness of Lukasiewicz, Post and others. Their multiple-valuedness is strictly *mono-contextural*.

The first 3 epochs are dominated by their *Double Blind Spot*, that is, the lack of self-reflectionality and awareness of being positioned into history.

Technically, their *morphogrammatcs* are not accessible and are in the hidden.

The 3-valued epoch is opening up a certain relativism of 2-valuedness, discovering a first Blind Spot, but remains in the negativity of denial (of roots, etc.). Such a relativism has no means to reflect itself and to produce a "positive" self-definition.

This ability of self-reflection is given within the 4-valued model, but this model is realizable only with the simultaneous acceptance of its morphogrammatcs. That is, with the acceptance of the distinction between general valuedness and value-free kenogrammatcs.

The first three epochs had been linked with these *semantic* and *meontic* (semantics of negativity) function of valuedness.

The fourth epoch is rejecting the dominance of valuedness in favor of the activity of *diamondization* as an activity of *kenogrammatcs*.

Valuedness is strongly connected with names, notions and sentences.

Multi-valuedness can be considered as a classic interpretation of the semantics of intertextuality.

"*Totem and Tabu*" may correspond to an ancient *name-based* understanding of the world. *Notion-based* thinking is opening up a scientific-narrative approach to the world in the sense of the first world model (Lambda Abstraction).

A reflective, relational and relativistic word-view is based on *sentences* (Modal logics).

With the new distinction of valuedness (semantics, meontics) and morphogrammatcs (kenogrammatcs) a full *reflectional* and *interactional* system is possible.

## Differentiations in the transitions

According to Gunther's theory of history the transition from the 1-valued to the 2-valued world-view happened in a *differentiation* of two decisions producing a structural difference between the *Oriental* and the *Occidental* existence (psyche).

Formally, the semantics of a two-valued system has a positive and a negative value. The function of the values is to designate or to non-designate. With the choice for a coincidences between the positive values and its designative function a strict symmetry between positivity and negativity is guaranteed. This is the *Occidental* decision.

The *Oriental* decision is the opposite:

The negative value has a designative function. With that, a indefinite asymmetry is established.

In epistemological term, the symmetric 2-valued world-view is based on a egological ground, founding subjectivity, spirituality and temporality, the asymmetric concept is founding spaciality, objectivity.

The *grammatological* coincidences are obvious:

The Occidental world-view is based on alphabetical sign systems, i.e., logocentrism.

The Oriental world-view is based on a planar system of characters.

Technologically, the western model was accessible to formalization, producing formal systems, incorporating the *Arabian* algebraic and algorithmic concepts and procedures and exploiting the power of the *Indian* concept of zero.

This historic formation was then connected with the idea of mechanical computation, like it was realized long ago by the *Chinese* Abacus.

A similar formalization of the structure of the Chinese writing system like the formalization of alphabetism has not yet been attempted or considered as a necessary task.

Further on, more open questions are occurring.

What are the differentiations in the *transition* from the 2-valued to the 3-valued system? And, what are the corresponding *transitions* from the 3-valued to the 4-valued world-view?

A 3-valued system is at first enabling circular structures, i.e., *negation cycles*. Thus, the characterization of the values as designative or non-designative is relative.

The hegemony of strict dualism of the 2-valued approach is dissolved. Such a negation cycle is the smallest possible real cycle next to the 2-valued self-cycle.

This may be a hint to understand in a positive way the US-American relativism and its realization in pragmatism. (Peirce, Dewy, Royce)

But also its structural *Double Blindness*.

Additional to this "value-oriented" structural approach of Gunther, considerations about the differentiation of *alphabetic and hieroglyphic* writing systems had been involved into his theory of history. The thesis of a weakness of alphabetism in contrast to a specific identity strength of Chinese writing had been explored.

*"That is, in holding to the ideograms, lies an unconscious insight of a massive asymmetry between spoken and written language. It is the written language, on which a main culture rests. It possesses an identity strength, which stands out clearly against the identity weakness of the spoken word." Gunther*

Media theoreticians, like Alfred Kittler, have studied in recent time the connection between alphabetism, culture and computer technology in European history, but they are not aware that mathematics, programming paradigms, formal systems are depending on the *linearity* and *atomicity* of alphabetism.

This blindness of alphabetism and its late ideological *defence* by European media scientists is just what has to be surpassed if we want to stop the self-destruction of culture in general.

## **Gotthard Günther's DETAILED STATEMENT OF THE PROJECT, 1953**

*But the proof of a new logic is found in its application. I have therefore - after developing the basic categories of that new technique of thinking - applied my three-valued non-Aristotelian logic to the problem of History.*

*If you look at American History with conceptual categories of non-Aristotelian origin this course of human events does not longer appear as a continuation of Western Civilization but as a novel departure from the general trend of history in the Old World of the Eastern Hemisphere.*

*A new and indigenous form of historical existence is emerging in the New World of the*

*Western Hemisphere - and with it goes a principal rejection (or technical secularization) of the metaphysical premises of Old World History. This is indicated in Thomas Jefferson's amazing criticism of Plato's "Republic" and his repudiation of the historical concepts implied in Plato's philosophy.*

*My interpretation of American History is based on the following trend of thought: Generally speaking the history of Man has so far developed on two very different historical levels.*

*The first is that of the so-called Primitive Culture with the concomitant metaphysical world-conception of animism. The animistic interpretation of Reality is the product of a mind which works with a one-valued logic. Here the subject is completely identified with the object, namely the world that surrounds it.*

*The following, second level of the history of Man is that of the so-called regional High Civilizations (Egypt, India, China, Greek/Roman and Western Civilization of northern Europe). In this second form of historical existence Man develops concepts of life based on a two-valued pattern of consciousness.*

*It is significant that Aristotle's logic of duality was discovered in this era.*

*Traditionally American History is regarded as belonging to that epoch. It is tacitly assumed that since the advent of Columbus America should be regarded as an extension of Western Civilization.*

*It is my contention, on the other hand, that American History does not anymore belong to this second level which is characterized by the appearance of regionally limited High Civilization!*

*On the American continent a novel form of History is coming into existence, constituting a third level of World-History.*

*The structure of the human consciousness is changing and with it the spiritual aims of the race. Not the knowledge of natural objects but the science of Man himself will be the central core of all intellectual efforts.*

*This, however, presupposes a new logic in which an exact theory of the subject as different from the mere object is developed.*

*For this purpose a three-valued logic is absolutely necessary.*

*The American mind is potentially non-Aristotelian ... or let us say: post-Aristotelian.*

*The primitive mind is pro-Aristotelian, and the epoch of regional High Civilizations is dualistic. Only this dualistic mentality corresponds with the concepts of a two-valued logic. (Gotthard Gunther, 1953)*

<http://www.thinkartlab.com/pkl/archive/GUNTHER-GODEL/GUNTHER-GODEL.htm>

posted by Rudolf | 7:45 AM | 0 comments [links to this post](#)

TUESDAY, JUNE 19, 2007

中国挑战 - 电视新闻 (TV News, Weina Betty Sun)

## 《中国的挑战：一个新猜想》

### ——对“中国挑战”说的一个注释



"我们能从中国人没有教我们的地方学到什么？"

——鲁道夫

### 主流文化依赖于书写模式。

民族的理性特质、他们的技术有效性、他们把社会组织起来、交流信息、以及他们的艺术科学等等这一切都跟书写模式分不开；人们在书写和创建自己作为典籍的文化实践中学会思维和生活。

主流文化总是依赖于某种书写里包含的理性和技术模式。一

般来说，书写是一种文化、政治和技术形成的最抽象的机制和技术



## ——欧洲的文化及第一次猜想

欧洲的文化依赖于字母书写和印度的零占位机制，这种机制使得算术、计算的经济合理、形式化和编程语言成为可能。

莱布尼茨提出第一个关于中国文字的猜想。  
他设想了一种"通用语言"作为国家和人民之间沟通的可信赖的通信基础。

他的这个想法类似于中国的象形文字，  
中国象形文字通过典籍在不同口头语言之间起着桥梁作用。

要实现这一梦想他发明了凝练的数字表示和计算系统，这就是二进制系统，依此  
作为欧洲对古老的中国"易经"的一个回应，  
最终他发明了独立于任何民族语言的运算方法和逻辑，还有作  
为计算机的原型的计算机。

现代欧洲科学技术遵循了莱布尼茨的想法，产生了技术上的二进制主义和数字主义，并形成了今天西方——以及亚洲——的基本技术和经济力量。

但是，欧洲的技术力量停留在"老欧洲"的意识形态、形而上学和伦理学框架和限制当中。



## ——美国的美式梦想

在美国，欧洲的思维和技术形式摆脱了她的形而上学老套子，发明了"无所不在的计算"，实现了人工智能，人工生命，认知系统，机器人等等；实现了无限扩张的数字主义

今天，美国的美式梦想气数已尽！

美式梦想的成功已经接近了尾声；而老欧洲还由她的古希腊起源支配着，摆脱了欧洲限制的美式梦想现在迷失了根本，失掉了设计未来的精神源泉。

美国的必然衰落是由于"无根"！

与欧洲分道扬镳，成了无本之木无源之水，在数字主义达到了她的颠峰。



在沉湎于"数字形而上学"中并归结为0和1的不朽精神世界中，展望更先进的科技发展似乎是不可能的了。

全部美国式发展会在"数字实用主义"世界观中固步自封！

所以，基于古希腊字母文字、印度的数论和莱布尼兹采用中国文字模型，这一切作为欧洲和美国的美式梦想失去了设计世界未来发展的力量。



## ——中国书写模式

中国没有发展出类似的哲学、科学和技术，这是因为她的超复杂的书写模式，  
现在正在采用西方的科学技术成果；  
但是，中国在下一个时代自有对西方的优势：有没有被开发的丰富典籍资源。

中国文字永远是她的文化和政治的基础和保证，没有"字母线性主义"和数字主义的限制。  
西方思维的线性性质是更容易映射进入中国理性的"表格样式"的。

这种映射过程，在中国文字的自明性质方面不会导致任何混乱。



中国文字概念是表格样式的、多维度的、嵌入式的、开放的、复杂的和基于民族最古老文化传统的。

而这些特征正符合科学技术在处理现代社会问题和开创新未来的要求的。

因此，为今而言，所谓中国的挑战，不是为西方视为危惧的新的经济实力和扩张，而是在作为未来技术革命基础的中国理性重新发现的可能性方面。



中国理性把任何美国式的东西远远地甩在了后面。中国对西方的挑战不是经济的、也不是政治的或者军事的；

苏醒的技术中国和经济中国这个事件并不构成对西方的所谓的"大挑战"，真正的挑战是重新发现她的文字系统，并设计出新的理性形式系统，就像创造新的数学和新的编程语言一样；

是面对一个崛起的中国我们是否做好了充分的准备。

因为忙于适应西方的技术和经济，中国官方还没有意识到这种形成未来主流文化基础的可能性。可能吧，十九世纪是欧洲世纪，二十世纪是美国世纪，而二十一世纪将是中国世纪。



## ——形态语法学：第二个猜想

我的想法作为后欧洲的第二个关于中国文字的猜想由此而生。

第一步，我提出"多结构逻辑 (Polycontextural Logic)"的研究和"形态语法学 (Morphogrammatics)"研究，作为在西方模式走到尽头时，对中国理性和技术的概念系统作的一个可能的、新的理解。这

一工作——我知道它的风险——是某种实验性的猜想，具有永恒自解构的能力，超越西方、亚洲在思维和技术方面的"具象中心主义"，形而上学的单一结构主义。

形态语法学和多结构理论包含并且超越西方的思维、计算和编程语言的设计，能够满足新时代对操作理性提出的表格样式的处理和对复杂性处理的要求。



猜想总是文化传统革命的前奏，总是为文化管理者所拒绝。

VIDEO: <https://youtu.be/noKj1yk9O4E>

作者：Rudolf Kaehr

翻译：韩宪平

来源：思维实验室

网址：[www.thinkartlab.com](http://www.thinkartlab.com)

《中国的挑战：一个新猜想》 Chinese Challenge-TVNews

posted by Rudolf | [4:36 AM](#) | [0 comments](#) [links to this post](#) 

SATURDAY, JULY 14, 2007

## Chinese Ontology

# An Aperçu

Chinese ontology (cosmology) can be put into two main statements:

***A. Everything in the world is changing.***

***B. The world, in which everything is changing, doesn't change.***

This two main statements are designing a paradoxical constellation.

Hence,

**1. The finiteness of the world is not closed but open.**

Because of the changing statement (A) the finiteness (B) is not static.

*"In a closed world, which consists of many worlds, there is no narrowness. In such a world, which is open and closed at once, there is profoundness of reflection and broadness of interaction."* ([The Book of Diamonds, Intro](#))

**2. Everything in the world is connectable.**

Because of the finite structure of the world, entities are accessible in many ways.

**3. Connections are bi-directional.**

Because of the finiteness there is no uni-directionality in linear time.

**4. Bi-directionality is chiasmic.**

Because the world is changing, the way back is not exactly the same as the way forwards. This is defining the heterarchic grid structure of the world.

**5. The modeling process of Chinese ontology is not phono-logocentric.**

Because of the paradoxical character of the "ontology" it can not be represented by phonological statements of identity-based mathematics and logic.

Therefore,

6. Because it is written in logical sentences, this aperçu of a definition of Chinese ontology is a paradox *metaphor*.

7. A first operative description and formalization of Chinese ontology is proposed by

the Diamond Theory, which is in a trans-phonological sense a *paradox*.

8. Diamond theoretic paradox is positively inscribed in Diamond Theory as the interplay, i.e., *chiasm*, between *categories* and *saltatories*. Saltatories are complementary to categories. Complementarity is not duality.

9. The structure of the interplay (chiasm) of categories and saltatories in Diamond Theory is defined by the *proemial relationship*.

10. The proemiality of the proemial relationship is inscribed as an interplay between *order-exchange-* and *coincidence* relations, distributed over different *loci*.

11. Because of the finiteness of the world Diamonds have a location in it. The location (position) of Diamonds is inscribed by their *place-designators*.

**Thus,**

12. *The self-referential paradox/parallax of the metaphor of Chinese ontology is realized by the operative calculus of Diamonds as an interplay between categories and saltatories of Diamond Theory.*

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posted by Rudolf | 2:22 AM | [2 comments](#) [links to this post](#) 

THURSDAY, JULY 12, 2007

## The Complementary Blog: Diamond Strategies

Have a look at the complementary Blog to the **Chinese Challenge Blog**:

### Rudy's Diamond Strategies.

The new Blog is presenting, step by step, new insights into the mathematical theory of Diamonds.

### Chiasm (Categorification, Diamondization)

#### **Diamond: 2-graphs with 2-structures**

i) *Data: 2-diagram  $C1-s,t-->Co/Co<-diff-C1$  in 2-Set Objects in diamonds are involved into 2 operations: coincidence and difference. Coincidence is producing composition and therefore commutativity.*

*Differences are producing hetero-morphisms and therefore jumpoids.*

ii) *Structure: composition, identities + complement, differences*

iii) *Properties: unit, associativity + diversity, jump law*

iv) *Interaction: Chiasm between category and saltatory.*

"In ordinary category theory we have 1-dimensional arrows  $\rightarrow$ ; in higher-dimension category theory we have higher-dimension arrows."

"...n-categories are studying morphisms between morphisms." Tom Leinster

Hence, Diamond theory is neither studying linear ordered arrows nor morphisms between linear ordered arrows but the *complementarity* of morphisms and hetero-morphisms, acceptional and rejectional morphisms, i.e., the relations between the operation of *composition* and its complementary *morphisms*.

In this sense, diamond theory is studying 2-dimensional, i.e., **tabular** categories, independent from the questions of n-categories or others.

Thus, diamond theory is the study of tabular categories as an interaction of *categories* and *saltatories*. Saltatories are the complementary diamond structures of categories.

The term *interaction* is correct because the interplay between categories and saltatories happens inside the diamond definition and is not only a meta-theoretical fact like the *duality* of categories in category theory.

Compositions as operations are not thematized in Category theory but only their result, which are new morphisms.

Diamond theory is thematizing the activity of the composition operator not as a *morphogram* but as a complementarity to the operator, implemented as a hetero-morphism.

Diamonds are thematizing the basic operation of category theory as such: the *operation* of composition. The thematization is modeled into the *hetero-morphisms*.

In a general setting of *graphematic* analysis of composition the *morphogramatics* of the operator "composition" has to be taken into account, too. That is, the neither-nor gesture of categorical object and morphism has a double face: hetero-morphism and morphogram of composition.

As Categories can be generalized to n-Categories, Diamonds can be generalized to n-Diamonds.

## Topics

*Category Theory*: object/morphism

*n-Category*: morphism/morphism

*Diamond Theory*: categories/saltatories.

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posted by Rudolf | [4:21 AM](#) | [2 comments](#) [links to this post](#)

April 2008 / [http://www.thinkartlab.com/CCR/2008\\_04\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2008_04_01_rudys-chinese-challenge_archive.html)

WEDNESDAY, APRIL 30, 2008

## Short Studies 3. Chez Maxime's

# Human rights in a polycontextural world

### Excerpts

From another story we might have experienced a first conflict involving ethics. "Without doubt, our fish had a knowledge that he was living in water and not a perception; there was nothing to see at all. What he could perceive was his complex world full of strange stuff, and this funny fish girl. But not the water. What the fish girl didn't know, neither Heinz, was that he properly acted according to Heinz' CybernEthical Imperative:

***"Always act to augment the amount of possibilities of the others!"***

But he, our fish, not Heinz, didn't accept the fish girl's ignorance to try to reduce the necessities of his insights. Therefore, intuitively, his dual imperative of Heinz's altruistic maxim came into force.

***"Never contemplate to reduce the amount of necessities of yours!"***

This dual maxim has to be set into a complementary maxim to conflict the *GoldenRule* of ethics. This is not simply involving a negation of selfless altruism, hence selfishness, but a first step into a liberation of ethics from ontology.

Only if we accept the slavery of classical logics, which is declared as universal, natural and ultimate, again and again, we would have to believe that a rejection of altruism must necessarily be an affirmation of selfish egoism. The fish was not selfish but true to the alter-ego of his fish girl.

This intricate togetherness of a dual imperative for actions, which always are a composition of actions and never occur in the majesty of a singularity, is highly intriguing and needs, thus, a formalization in an appropriate formalism, like the diamond category theory, which is offering additional space for the togetherness of complementary and antidromic statements.

Therefore, the two imperatives have to be embedded into a complementary and reflectional interplay:

### ***Co-CybernEthics***

***"Always act to augment the amount of possibilities of the others!"***

***"Never contemplate to reduce the amount of necessities of yours!"***

## **Universal, fundamental, natural, global**

Universal human rights are declared as universally valid and fundamental; as holding universally. What to do, if we don't belief in a universe in which human rights could hold. What if we belief, instead, not in a uni-verse but in a pluri-verse or a multi-verse or even

neither in a uni-/pluri- nor in any -verse at all? Are we then still entitled to be respected by the intentions of the Human Rights?

And if we still are entitled to be respected by the human rights, do we really want to be honored by an idea of humanity, which is stupidifying its members in such a radical way? Wouldn't it be a better choice to search for chances of post-technological trans-humanism?

### **Co-Article-0:**

***Everybody has the right to be a human being.***

***No human being has the obligation to remain as a human being.***

## **Diamondization of the declarations**

### **Article 1**

*"All human beings are born free and equal in dignity and rights.[...]"*

No human beings are born non-free. No free born being is human. No born being is human. All human beings are different in dignity and rights. All dignities and rights are equal to different human beings. All dignities and rights are different to equal human beings. No dignities and rights are equal to different human beings.

### **Co-Article-1:**

***All human beings are equal.***

***No equal is a human being.***

### **Article 2**

*"Everyone is entitled to all the rights and freedoms set forth in this Declaration [...]."*

Nobody is entitled to all rights and freedoms in this Declaration. There is no Declaration for everyone to be entitled to all rights and freedoms set forth in this Declaration. There is nothing set forth for the rights and freedoms of everyone. Everyone is free. Nobody is free. Nobody is unfree. No free one is everybody.

### **Co-Article-2:**

***Every one is free.***

***No free one is everybody.***

This game of deconstruction has to be played situatively, every time, until an agreement is reached in the actual group as a result of contextural, i.e., interactional, reflectional and interventional, negotiations.

FULL TEXT:[http://www.thinkartlab.com/pkl/media/Chez\\_Maxime/Chez\\_Maxime.html](http://www.thinkartlab.com/pkl/media/Chez_Maxime/Chez_Maxime.html)

posted by Rudolf | [8:23 AM](#) | [0 comments](#) [links to this post](#) 

## **Short Studies: 2. Fishes and Birds**

# A Tale of Fishes, Birds and Diamonds in Second-Order Epistemology

**Why it is useless to speak about the mono-contextuality of alphabetism and digitalism**

## The Endness of Events

The endness of events in a open/closed world are not simply ending in an unqualified way. Endness has to be connected with rhythms instead of linear or non-linear progressions.

The endness of events in a open/closed world are not simply ending in an unqualified way. Endness has to be connected with rhythms instead of linear or non-linear progressions.

A rhythm has a beginning and an end; endlessly. An open/closed world is poly-rhythmic. Scientific linear time structures of whatever complexity are without rhythms. Western science beliefs in a 1-rhythm world: from the big bang to the wee crash.

In many papers I emphasized the importance of linearity for the Western way of thinking and its mathematically based technology. In-between I have the feeling that I always experienced a strange lack of response to my argumentations. In a metaphor, I feel like a fish telling his female fish friend: "*Honey, do you know, we are living in water?*" And getting the harsh response: "*Shut up you wancker, I don't fancy you!*".

OK, not everybody can be mesmerized like Monsieur Jourdain after he learned that he is speaking all his life prose. And not everybody thinks that this is trivial anyway.

For good reasons we can belief that there is no reason to think that the fish girl was stubborn or even stupid. She easily could have pointed to the un-denial fact that there is no such thing like water in the water to perceive.

What is in the water are all these different plants, stones, animals, and surely, other fishes. But no water at all. This is more than clear. There might be some areas where it is harder to swim or where other stuff is moving very fast or areas where nothing is moving at all. The stuff might also move in all direction, at once. And as far as she can swim there is no limit and no reason to stop her swimming. What can be perceived and sensed in her world as a fish are objects of all sorts but not water.

Another approach, which has not to struggle with the problems of the abstractness of the arguments for linearity of alphabetism with its atomicity, abstractness and ideality of signs, could be the more generally acknowledged fact of the endless repeatability of (sign) events.

This concept is independent of dimensionality, parallelisms, circularities, interactions and other seemingly non-linear complex and pictorial or sonic processes and structures.

As for the swimming moves of our fish girl, which are not restricted by any obstacle, to each move there is a next move, and so on. Swimming is producing swimming; only a swimmer is swimming, and no swimming is leaving the category of swimming. Outside of swimming there is no swimming. Swimming adds to swimming, and remains swimming; endlessly. No swimming transforms into flying; no swimming permutes into walking. And so on.

OK, in real-world conditions, the fish girl will stop to swim because of physical limitations of her life-span. The same happens, evidently, to the chalk and blackboards of the high priests of formal systems. The endless iterativity of their sign systems will have, in real-world conditions, unavoidably, some natural ends.

This is in sharp contradiction to the abstractness of the definition of signs and Obs in formal systems.

Nevertheless, repeatability is open and endless. The iterability of repeatability is stable.

The other fact, we could agree to some degree, is given by the identity of the repeated objects. It may not be a too big challenge to see and perceive, clara et distincta, that this concept of identity is best realized, as Hegel pointed out, by the Western alpha-numeric sign systems.

A number or a letter is as a number or as a letter strictly identical with itself. Take the inscription on your bank note: 5 USDollar. There is nothing to interpret, 5 is 5 and USDollar is USDollar. And nothing else.

Hence, endless repeatability is realized within the realm of identical entities. Or: identities are realized in the realm of iterability.

There is no identity without iterability and no iterability without identity.

This, again, happens in the ideal world of sign systems, i.e., in the mind of semioticians and mathematicians; and not at the blackboard, nor in citations or plagiarism.

Therefore, if we accept iterability, we have not to struggle with the strangeness of the challenge to be aware of swimming in strange waters. Identity, at least to some degree of fuzziness, and the endlessness of repeatability in all its mathematical forms, seems to be accessible to everyone and understood universally without getting involved with the paradox of the medium we are living in.

Things are getting less natural and universal if we stipulate a pluri-verse instead of a classic universe. But this is a story to come!

It seems that nobody wants to share my linearity thesis. It is said, all over again: The world is hyper-complex, fractal, undecidable and the World Wide Web decentralized and chaotic.

Old alphabetism is loosing its dominance to images, pictures, pictograms, videos and sound.

More theoretical motivated guys are talking about cellular automata, parallelism, actor communities, grid computing, etc. Therefore, there is no such thing as a dominance of linearity and identity in a post-modern world full of paradoxes, parallaxes, ruptures and abysses.

A.A. Markov's linearity thesis is not only unknown by media scientists but put under the carpet by computer scientists as old foundational fundamentalism (FOL) and bad reductionism. What to do against such a poverty of thinking?

Simply, change topic!

Give it up! Ask our fish!

Hence, forget linearity!

Enjoy endless repeatability! The world is rich and complex, and you too.

And there is also space enough to defend this situation of repeatability before we end up in the paradoxes of self-defence.

[...]

The consequences for the entire paradigm of composability, based, as we learned, again and again, on iterability, are enormous. Not only an absolute new kind of double-compositionability appears on stage, even more.

Primary to all composition, there is the difference between superpositional and antidromic combination. Instead of dealing with superpositionality, interactionality and reflectionality between superpositional and antidromical movements, iter-/alterabilities, are taking place, well positioned in the kenomic grid of Diamond Strategies.

This is really a great relief!

Forget debates about the monocontextuality of combinatorial logics, their fixation on alphabetism and its linearity and atomicity, as sine qua non of all composability.

Forget the postmodern theater of disseminating colored contextures of repeatability.

Forget the phantasm of our hidden universal mockingbirds in whatever fibered forests.

Listen to the songs of free mating birds! Enjoy your Diamonds!

posted by Rudolf | 4:27 AM | 0 comments [links to this post](#) 

WEDNESDAY, APRIL 16, 2008

## Short Studies: 1. Modular Bolognese

### **Paradoxes of postmodern education.**

In a series of small texts, which I'm on the way to publish, I will develop some easy accessible thoughts concerning *Diamond Strategies* and *Diamond Category Theory*. I will collect those studies under the umbrella of **Short Studies**.

With all those studies I will develop some application of the Diamond Strategies to well known topics, like modular education, transdisciplinarity, human rights, Kantian Maxim, plagiarism, fashion and social networking.

The first 4 studies in progress are listed below:

1. Modular Bolognese. Paradoxes of postmodern education.
2. Birds and Diamonds in Second-Order Epistemology
3. Primary thoughts to a Manifesto for Awareness Fashion Marketing
4. Diamond Web2.0. How social is social networking?

Let's start with the beginning of the first Short Study!

## **1. Modular Bolognese – Paradoxes of postmodern education.**

### **Modules in Metaphors**

Without doubt, I like Spaghetti Bolognese. Especially, the Bolognese between the spaghetti. Even more, I like the Bologna Reform, which is unifying European education. As we had to learn, spaghetti in their chaotic wildness are not supporting the desires of clean decomposability and reusability, needed for real-time control and surveillance. Like it happened with ravioli, the Bologna Reform invented the modularity of knowledge for university education. Each topic has to be framed by its module. Each module is cleanly separated from the other modules. Like ravioli, which are coupled only loosely and are building, ideally, a cluster, each module has its own content, structured hierarchically into topics, sections and paragraphs, enabling its specific taste and evaluation.

[A full-fledged theory of the Pasta Strategies is available at the complete Pasta Theory of Software Development. The present text about Noodles will be published at Moodle.]

But ravioli are nothing without their sauce! That's obvious and natural for the people of Bologna. But hard to understand north of the Alps. What are we doing with the sauce? Is it simply another module? But how can the *in-betweenness* of modules in a modular system be

itself a module? This contradicts academic logic; it maneuvers you immediately into headaches of logical paradoxes.

If the module between the modules is itself a module, what is the in-betweenness between this conglomerate of modules, such a meta-module, and the original modules themselves? A meta-meta-module or simply nothing? Or is it the para-module of fluidness and fuzziness, defined by Water Logic? Do we need a proto-module to manage this new inter- and trans-modular wilderness? What happens if the sauce between the ravioli becomes a sausage? Is the sausage an ultra-module? It belongs to the modular system exactly if it doesn't belong to the modular system. The sausage is a module exactly if it is a ravioli and at the same time it is a ravioli if it is a sausage.

And by the way: Is the logic of this argumentation itself a module or is it superior or prior to all modules? Is it a a module with its own subversive logic or simply a pseudo-module?

There are not many chances left to solve this paradoxical problem. One radical strategy tells you: Eat the sausage and forget the problem!

Yes, but what are we doing with a ravioli Bolognese without sauce? We simply could smash the dry ravioli into the bin. All problems solved! But there is another solution too: Mediate the ravioli and the sausage with a brand new sauce, well mixed, half ravioli and half sausage. This strategy has a safe legitimation and is best evaluated by the tools of Fuzzy Logic.

Unfortunately, the Fuzzy Strategy is of short reliance as it is demonstrated in my Warentestpaper, which is probably the very first evaluation of the reliance of logical systems for interactive devices in commercial telecommunication.



Ok, the game has to go on. Why not introduce, just for academic reasons, a new mega-sausage between the ravioli and the first sausage and the ravioli and the mixed – fuzzy based – sauce consisting of ravioli and sausages between the real ravioli and the real sauce Bolognese? But what's real in such an administrative intervention? The sauce, the ravioli, the sausage or the content in the ravioli or the European administrators of the ravioli complot?

Even worse, a good Bolognese is not a homogenous module, it is in itself full of well-balanced differences of overlapping interactions of different strength. Hence, the interplay between ravioli is not modular but sub-modular. Ravioli are building 3-dimensional clusters, and only a few of them are showing a flat hierarchical order of composition.



It is more than clear, that the content of a single ravioli Bolognese is of no interest at all. What is of interest is the clear cut distinction between the shape and content of each ravioli and the disjunctive separation from other ravioli.

Nevertheless, each single ravioli has to pass a general test of quality: *measure, weight, taste, design, originality*. The evaluation is general or even universal because each ravioli is tested by

strict *scientific* and objective quantificational methods.

There are surely differences in the general cluster, there are ravioli for the beginner, ravioli for the advanced and ravioli for the post-docs and ravioli for the tester and ravioli for the administration, etc. And all are fitting well into the European ontology of modularized knowledge taxonomies and ontologies and the qualifications of the generalized European user of the Semantic Web.

FULL TEXT [here](#).

<http://www.thinkartlab.com/pkl/media/transMODULE/transMODULE.html>

posted by Rudolf | 9:16 AM | [0 comments](#) [links to this post](#)

May 2008 / [http://www.thinkartlab.com/CCR/2008\\_05\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2008_05_01_rudys-chinese-challenge_archive.html)

WEDNESDAY, MAY 07, 2008

## Rudolf Kaehr über Künstliche Intelligenz

You might enjoy to watch some videos about **Artificial Intelligence** produced in the early 90s by the filmmaker Thomas Schmitt and myself.

***FREISTIL, oder die Seinsmaschine***

***Mitteilungen aus der Wirklichkeit***

<http://www.tagtraum.de>

Regie Thomas Schmitt, Text Rudolf Kaehr

parts are re-published at:

<http://www.vordenker.de/ggphilosophy/freistil.htm>

The main thesis is focusing on the necessity of Artificial Living systems for the development of Artificial Intelligence.

Artificial Living systems are conceived as well separated from classical, symbol-based artificial intelligence research and from neural network developments, which had been in fashion in the 80s/90s.

In contrast to what we can learn today from experts, the message of these videos is strictly conceptual and based on the insights of polycontextural logics and kenogrammatrics.

Hence, what is still of interest is the idea of a new kind of machines beyond Turing-Machines.

Without doubt, the esthetics is still quite impressive.

## Part 1 to 6:

[http://tw.youtube.com/profile\\_videos?user=ggjpspecial](http://tw.youtube.com/profile_videos?user=ggjpspecial)

These videos, in German language, are parts from the whole TV-Film "*Die Seinsmaschine*" broadcasted by the German Westdeutscher Rundfunk (WDR).

**Part 1 of the video blob:** <https://www.youtube.com/watch?v=R9lnSor4QFo>

posted by Rudolf | [2:49 PM](#) | [3 comments](#) [links to this post](#)

**June 2008** / [http://www.thinkartlab.com/CCR/2008\\_06\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2008_06_01_rudys-chinese-challenge_archive.html)

TUESDAY, JUNE 10, 2008

## Short Studies 5. Diamond Web2.0

# How social is social networking?

### Full Study

[http://www.thinkartlab.com/pkl/media/Diamond\\_Web2.0/Diamond\\_Web2.0.html](http://www.thinkartlab.com/pkl/media/Diamond_Web2.0/Diamond_Web2.0.html)

[http://www.thinkartlab.com/pkl/media/Diamond\\_Web2.0/Diamond\\_Web2.0.pdf](http://www.thinkartlab.com/pkl/media/Diamond_Web2.0/Diamond_Web2.0.pdf)

*"He said, 'For instance, what a student in Guangzhou prefers may be exactly opposite to that of a student in Beijing, and in CityIN we try our best to cater for different preferences'."*

*CityIn: A Lifestyle Social Networks Written by Tangosaon March 5, 2008*

## Questions

- What does it mean for social networking to search for sameness?
- How is such sameness dealing with its opposites?
- Which kinds of opposites do we know, and know to use?
- How global is social networking if it is limited to one and only one world-model?
- What does it mean that Web2.0 is mobile if it is restricted to information exchange with all its features of text, sound, video, and more?
- Will social networking not dry out soon and becoming boring if it is not able to support inter-actional creativity?
- Is it necessary to reduce the Web2.0 possibilities to global Web Services?

The following study is risking a very first approach to such questions by applying the *Diamond Strategies*.

## Towards a Diamond Web2.0?

The Web2.0 understanding of societal activities is based on a non-societal model of hierarchical, mono-centered and solipsistic orientation.

Sociologically, it is based on the dichotomic distinction of the singular *private* and the *plural* public.

A first step to diamondize Web2.0 approaches has not to go into the basics of transforming Web2.0 into the dynamic semantic Web3.0, it would be a reasonable transitional step, first to diamondize the existing technologies and user interfaces of Web2.0.

This could happen along the main metaphors of the Web2.0: *social, global, mobile* in connection to *interactional* and *reflectional*.

The sketched ideas for a diamondization of Web2.0 technologies is taking the slightly futuristic position to propose Diamond Web2.0 from the position of the insights into the emerging Web3.0 and contrasting it from the more traditionalist concepts and technologies of the Web1.0.

In this sense, Diamond Web2.0 could be understood as a transitional concept to a social Web3.0, hence as a Web2.5.

With Chang, I try to avoid the interesting discussion about the technological legitimacy of such a thing as Web2.0. There are enough arguments pro and contra, especially from the standpoint of Web1.0, to deny the technological relevancy of the term Web2.0.

But also from the position of an emerging semantic Web, i.e. Web3.0, Web2.0 is lacking significant conceptual changes to challenge the well known concepts and technologies of Web1.0.

On the other hand, it seems, that enough new features emerged, at least in the general use of the Web, i.e. Web services, to put it together as Web2.0.

A little *typology* of the development of the Web is sketched. The idea behind this typology is to reflect on the degree of the *involvement* of the user (subject, reflexivity) into its usage.

It is also proposed that in contrast to the main stream opinion, the difference of *surface-anddeep-structure* of the Internet and its form of usage, is of great relevancy.

Obviously, the pragmatic terminology of *use, usage* and *user* is applied, and for Web4.0, deconstructed, against its singularity.

It is obvious that this little typology is not proposing a predictional or futurological typology or design in the sense of Spivak and Kurzweil, but nothing more than a *conceptual* offer for possible orientations in what is and what might emerge in the future of the Web.

It seems that such a change in optics, towards conceptual and *paradigmatic* analysis, is a necessary step to wake up from an enthusiastic but unrealistic dream.

## Little typology

1. the information tools using user, Web1.0,
2. the media participant user, Web2.0,
3. the knowledge producing and sharing user, Web3.0,
4. the paradigm co-creating (interacting and intervening) user, Web4.0.

## Content of the Study:

### 1. Diamond Strategies

## 2. Interactional diamondization

## 3. Web2.0 as "social": Social networking

## 4. ...."global": World-models

## 5. ...."mobile": Metamorphosis

## 6. ...."Interactional and reflectional"

### Full Study (in progress!):

[http://www.thinkartlab.com/pkl/media/Diamond\\_Web2.0/Diamond\\_Web2.0.html](http://www.thinkartlab.com/pkl/media/Diamond_Web2.0/Diamond_Web2.0.html)  
[http://www.thinkartlab.com/pkl/media/Diamond\\_Web2.0/Diamond\\_Web2.0.pdf](http://www.thinkartlab.com/pkl/media/Diamond_Web2.0/Diamond_Web2.0.pdf)

Labels: [diamond strategies](#), [metamorphosis](#), [mobility](#), [Web2.0](#), [world-models](#)

posted by Rudolf | 9:06 AM | 0 comments [links to this post](#) 

SUNDAY, JUNE 08, 2008

## Short Studies 4. Which Equality?

### How equal are equal human beings?

#### Full Study:

<http://www.thinkartlab.com/pkl/media/Equality/Equality.html>

<http://www.thinkartlab.com/pkl/media/Equality/Equality.pdf>

#### Abstract

"All human beings are equal". *What does "equal" mean? What are the many definitions of "equal" and "equality"? From a Diamond perspective, concepts of sameness, from equality, similarity, bisimilarity to hetero-morphism and more are sketched in respect to their usage in ethical discourses, e.g Human Rights, of mono-, multi- and trans-cultural formations. What happens in such scenarios to the Golden Rule of ethics? The family of mankind? The brotherhood?*

The following Short Study "*Which Equality?*", might be wrong in time. Things are still sub-human. The human rights not realized at all. On the other hand, what do we understand by equality if this term is defined only in a negative way, i.e. by exclusion of non-equality?

Despite the wrong timing, a conceptual effort to achieve a positive and constructive understanding of equality, anticipating futures to come, appears to be a reasonable entertainment.

#### Content

##### 1. Interdependency of context and composition

Life under the regulation of equality has stopped to be funny. To do the same, which can have strictly different meanings and significance, can end up in prison, deportation or

execution if judged by identity-trained forces and institutions of our free society.

## 2. Laws in mono-, poly- and transcultural formations

2.1 Mono-cultural formation

2.2 Poly-cultural formation

2.3 Trans-cultural formation

## 3. Facets of togetherness

3.1 Modi of togetherness

3.2 Equality

3.3 Similarity

3.4 Bisimilarity

3.5 Dissimilarity

3.6 Groups of Diamonds

3.7 The paradox of simplicity

## 4. The Queer World of the Golden Rule

4.1 Dissimination of GR

4.2 Paradoxes of an Ethics for Others

### Full Study:

<http://www.thinkartlab.com/pkl/media/Equality/Equality.html>

<http://www.thinkartlab.com/pkl/media/Equality/Equality.pdf>

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posted by Rudolf | 9:44 AM | 0 comments [links to this post](#) 

August 2008 / [http://www.thinkartlab.com/CCR/2008\\_08\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2008_08_01_rudys-chinese-challenge_archive.html)

WEDNESDAY, AUGUST 13, 2008

## Web Mobility

# Web computing between semiotic and kenomic spaces

FULL TEXT: [HTML](#), [PDF](#)

### Abstract:

Locality, positionality and mobility in semiotic, categorical, diamond and kenomic systems.

Kenomic mobility compared with Agha's Universal Actor System (UAM) and Middleware approach and Milner's Bigraphs.

Sketch of an Architectonics of Kenomic Mobility.

Introducing trans- and diamond-Actors and their chiasmic interplay as interactional and reflectional actors in knowledge grids.

### 3.1 Architectonics of kenomic Actor systems

1. *Primitive actors* are zero-order actors, they are not allowed to interact but are responsible for the whole actor system to work properly, i.e. without paradoxes and circularity.

Primitive actors are not active on the stage or arena but at the back-stage. Primitive actors are hidden actors.

Primitive actors are enabling the interactional actions of basic actors. Without the support by primitive actors self-destructive actions of infinite regress, antinomic circularities (paradoxes) are unavoidable in classical, i.e. monocontextural actor systems.

Primitive actors are typical for monocontextural (formal) systems.

2. *Basic actors* are first-order actors, their definition is to interact with other actors of an actor system.

Basic actors are the actors on stage. They are playing the big interactional drama on a single arena.

Basic actors are playing on stage on the base of the hidden support by primitive actors.

Basic actors are playing on stage on the prospect of the open guidelines by meta-actors.

3. *Meta-actors* are second-order actors, they are responsible for the interactivity between different actor systems in a global actor system, like the WWC (World Wide Computing).

Meta-actors are the directors of the actor play. They manage the interactions between the actors, the actor systems and their universal distribution in a global interactional game. Hence, on a higher level they are also the organizational committee of the distributed actor systems.

This reflectional capacity of the meta-levels of second order systems can be iterated to meta-levels of the second-order system. That is, in the second-order systems, meta-reflections (introspection) can be iterated without changing the second-order status of the system. No meta-reflection leads to a third-order system. No iteration of meta-reflection has to collapse into first-order systems.

Meta-Actor systems, which are not yet embedded into the Diamond Actor system are not immun against the infinite regress problem imposed by the infinite iterability of meta-reflections.

Deepness of meta-reflections of second-order systems vs. broadness of object-reflection of first-order systems. This defines the reflectional Actor system for uni-versal interactions as it is exposed by Agha's middleware approach.

4. *Trans-actors* are third-order actors, they are disseminating second-order actor systems over the kenomic matrix of polycontextural interactions. Polycontextural interactivity is pluri-versal.

trans -actors in polycontextural systems are represented by the so-called super-operators (identity, permutation, reduction, replication, bifurcation) defining operationally the interactionality between disseminated universal actor systems.

trans-actors are the mediators between disseminated actor systems. Mediators are the organizers of the interplay of different primordial actor systems.

Interactivity between disseminated actor systems is ruled by the mechanism of chiasms.

Chiasms are combining order-, exchange- and coincidence-relations between actors and actands on different levels of polycontexturality.

As a consequence of the chiastic structure of disseminated actor systems the primitivity of the primitive actors is resolved into a contextural relativity. What functions as a primitive in one contexture functions as a non-primitive in a neighbor contexture, and vice versa.

Hence, problems of circularity are restored at the situation of any single elementary contexture and resolved by the distribution of the construction of chiastic circularity over different contextures.

5. *Diamond-actors* are forth-order actors, they are embedding the activities of the trans-actors into diamonds.

Diamond-actors are enabling complex disseminated actor systems to incorporate the possibility of the new as the otherness of the actor system.

Diamond actors are playing a double role. They are responsible for the mobility system and are enabling its environment. The environment of a mobility system is the place of the otherness. This can incorporate attacking events and/or the surprise of the new.

Diamond actor systems are localized and positioned into the *kenomic* matrix.

The kenomic matrix is opening up spaces to general actor systems to place interactional, reflectional and interventional activities.

FULL TEXT:

[http://www.thinkartlab.com/pkl/media/Web\\_Mobility/Web\\_Mobility.html](http://www.thinkartlab.com/pkl/media/Web_Mobility/Web_Mobility.html)

[http://www.thinkartlab.com/pkl/media/Web\\_Mobility/Web\\_Mobility.pdf](http://www.thinkartlab.com/pkl/media/Web_Mobility/Web_Mobility.pdf)

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October 2008 / [http://www.thinkartlab.com/CCR/2008\\_10\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2008_10_01_rudys-chinese-challenge_archive.html)

THURSDAY, OCTOBER 30, 2008

CCTV-Cogito, ergo sum

## The CCTV SSS Cogito Formula

**Cogito, ergo sum. (Descartes)**

**Being watched, ergo sum?**

**Being watched, ergo registered.**

**Being registered, ergo killed.**

**Being killed, ergo watched!**



Underground poster referring to CCTV cameras. Photograph: Tony Kyriacou/Rex features

### **Statutes of liberty**

From the Magna Carta to CCTV, a new exhibition at the British Library tells the definitive story of the nation's fight for liberty.

<http://www.guardian.co.uk/uk/2008/oct/30/civil-liberties-exhibition-british-library>

## Watch:

Self-surveillance System (SSS)

CCTV cameras behind the Tron Theater Glasgow watching each other from eye to eye.

**Don't worry! Everthing is working fine! Watch the entries coming :-))**

Responses to my Blog entry in the time of 1/2-1 second!!!??

HTML:<http://www.thinkartlab.com/pkl/media/cogito-ergo-sum/cogito-ergo-sum.html>

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# Adventures in Diamond Strategies of Changes

## PDF-collection

### Preface

Tales and constructions of scripturality beyond iterability and its narrations.

How to write without telling stories and how to write stories without telling?

How to count without numbering? How to number without counting?

How to do both at once without counting on one of both?

Not writing stories is neither accepting nor rejecting story telling and the narration of writing.

Not counting is neither accepting nor rejecting numbering.

Writing is not counting with rejections and acceptance, neither with numbering and telling.

Narration is about and of something, sometimes this something changes to nothing, writing the nothingness of rejection is fairly struggling with the self-understanding of natural language as such.

*"Was mir schön erscheint und was ich machen möchte, ist ein Buch über nichts."*(Flaubert/Meier)

Diamond strategies are not moving in a continuum or a labyrinthine field of being and nothingness, sense and non-sense, but jumping in the carré, designing fractured emptiness, not accessible to natural languages.

Neither to the artificiality of formal notational systems.

Saltations, branchings backwards, double salti, turning somersaults, and others, are topological metaphors that are closer to scriptural adventures than continuous iterations of meaningful sentences.

Situational topics, hazardous strategies, unchecked methods; rejecting adjectives.

Conceptual stories and stories of concepts, biographical and actual, transcribed and constructed experiences of anger and love.

Neutrality of observations and inventions entangled with abysmal ennui and annoyance. What else?

====CONTENT====

## **Modular Bolognese**

Paradoxes of postmodern education.

## **A Tale of Fishes, Birds and Diamonds in Second-Order Epistemology**

Why it is useless to write about the mono-contextuality of alphabetism and digitalism

## **Chez Maxime's**

Human rights in a polycontextural world

## **Primary Thoughts to a Manifesto for Awareness Fashion Marketing**

## **Which Equality?**

How equal are equal human beings?

## **Generalized Diamonds**

From monosemic to tectonic complementarity

## **Diamond Disreption**

Diamond interpretation of the kenomic succession operation

## **Diamond Web2.0?**

How social is social networking?

## **Web Mobility**

Web computing between semiotic and kenomic spaces

## **Double Cross Playing Diamonds**

Understanding interactivity in/between bigraphs and diamonds

## **Morphogramatics of Change**

A monomorphy based sketch of morphogrammatic transformations

PDF: [http://www.thinkartlab.com/pkl/media/Short Studies/Short Studies.pdf](http://www.thinkartlab.com/pkl/media/Short%20Studies/Short%20Studies.pdf)

posted by Rudolf | [6:24 AM](#) | [0 comments](#) [links to this post](#)

December 2008 / [http://www.thinkartlab.com/CCR/2008\\_12\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2008_12_01_rudys-chinese-challenge_archive.html)

THURSDAY, DECEMBER 25, 2008

Category of Glue

# Is there any glue to stop the decline of Western culture?

FULL TEXT

[http://www.thinkartlab.com/pkl/lola/Category Glue/Category Glue.pdf](http://www.thinkartlab.com/pkl/lola/Category%20Glue/Category%20Glue.pdf)

## Abstract

A typology of different categories of glue (ordinary, super-, para-, proto-, trans-glue) are glued together with different strategies of gluing (set and category theory, combining logics, bi-category with (co)spans, polycontextuality and diamond theory).

Interpretations of "interactional glue", "nerve glue", "logical glue" are sketched.

Keywords of the dissemination of the concept of "glue" in history (Hegel, Marx, Lenin, Gunther, Derrida, Obama) and strategies (Glue, Opium, Mediation) of gluing them together under a general parapluie (ontology, society, solidarity, fear) are critically sketched.

The economical question is: *Can we still afford to glue interactions together?*

The category of glue isn't blue. Categories are clueless to interaction and are banking unsecured resources.

## How good is Portuguese Glue?

The best quality of Portuguese Glue is accessible, for an affordable prize, at the Logic Shops for Combining Logics in Lisbon, Portugal.

Everything, that doesn't fit together by nature can be glued by categorical glues.

Best selling products, at the time, are the "(co)-span" articles by *José Luiz Fiadeiro*.

Without doubt, José's glue, especially his "interactional glue", is one of the most elaborated and purest form of glue on the market.

Glue, today, is highly important. It always was. To feel save and gluish it is crucial to use only the finest glue available.

*"We found out Portuguese glue is very good! LOL"*

*PlanetGeorge Forums*

*The Place George Michael Fans Call Home*

<http://planetgeorge.org/Forum/viewtopic.php?t=3552>

Such a high quality has its own tradition of expertise. Much was imported from the San Diego Zoo, California, USA. Other decisive work had been done by the scholars at place. They also had the opportunity to be guided by Brazilian specialists. As usual with success stories, there are hidden, well superseded sources, too.

Thus, the new product of combining and gluing is now available as the glue with the magic label "(co)span". To *span* has a temporal aspect and *span* is has metric determination of an inter-space or gap.

*"In order to make interconnections independent of the nature of components involved, interaction protocols are formalized not in terms of morphisms (i.e. part-of relationships) but a generalized notion of (co-)span in which the arms are structured morphisms | the head (the glue of the protocol) and the hands (the interfaces of the protocol) belong to different categories, the category of glues being coordinated over that of the interfaces."*

*"The 'semantics' of the protocol is provided through a collection of sentences | what we call interaction glue that establish how the interactions are coordinated. This may include routing events and transforming sent data to the format expected by the receiver."*

## Diamond theory

Agglutination, inversion, chiasm: "gl" and "lg"

Complementarity of categories and saltatories is interplaying in a glue-free game of jumps. Categories might be glued. Saltatories are not gluing their gaps. Complementarity between categories and saltatories happens in a glue-free interplay of bridging salti.

In other words, how can we glue things together without getting hassled by the clamminess of our glue and still being able to enjoy the gluishness of its intoxication?

The answer to this paradox is given by the jump-operation of saltisitions. Saltisitions and hetero-morphisms are characterized by antidromic orientations. Hence, it would be natural to think of them as products of inversions, i.e. as inverted morphisms. But that's not a solution.

The inversion of "glue" is "ugly", and there is no doubt that glue is fundamentally ugly and a categorial member of ugliness.

A combination of the ag- "gl" and de-glutinational "lg" to "gl-lg" is discovering a *tinychiasm* in the very concept of the ugliness of (ag)glutination (GLAS, Derrida).

This phenomenon probably was the very reason that let to the misleading hope that the mechanism and strategy of inversion and dislocation of (semiotic) glue to help to avoid the crash of the evaporating glue of togetherness.

Saltisitions are inscribing the conditions of the possibility of categorial compositions. Compositions in category theory are glued together by the matching conditions. Their clamminess might be avoided by a jump from category to diamond theory.

FULL TEXT

[http://www.thinkartlab.com/pkl/lola/Category Glue/Category Glue.pdf](http://www.thinkartlab.com/pkl/lola/Category%20Glue/Category%20Glue.pdf)

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FRIDAY, JANUARY 23, 2009

## Category Glue II

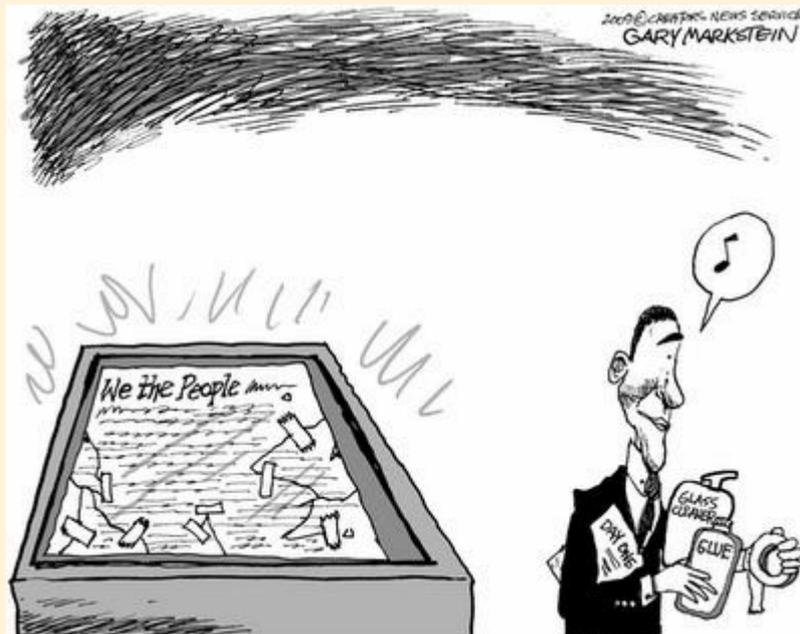
### FULL TEXT

[http://www.thinkartlab.com/pkl/lola/Category Glue II/Category Glue II.html](http://www.thinkartlab.com/pkl/lola/Category%20Glue%20II/Category%20Glue%20II.html)

#### Part II:

*How to get rid of glue? From gluing to jumping.* A new abstraction, the *as-abstraction*, and a subversion, the *morpho-abstraction*, has to be risked to avoid the complicity of category theory with the unavoidable exploitation of (conceptual) resources by the Western approach to interaction and communication in computer science.

To overcome the limitations of the category "glue", contextualization and mediation in a chiasmic and diamond framework has to be elaborated and achieved to create chances to surpass and subvert such cultural and technological limitations.



<http://cartoonbox.slate.com/hottopic/?image=8&topicid=114>

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### Category Glue II

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##### 1.1. Buffering super glue

###### 1.1.1. Gluing information

###### 1.1.2. Circularity of buffering information

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posted by Rudolf | [10:24 AM](#) | [3 comments](#) [links to this post](#) 

SATURDAY, JANUARY 03, 2009

## The Logic of the Bailout Strategy

# The end of capitalism or the end of the state?

FULL TEXT:

<http://www.thinkartlab.com/pkl/media/Bailout Strategies/Bailout Strategies.html>

<http://www.thinkartlab.com/pkl/media/Bailout Strategies/Bailout Strategies.pdf>

## 2. Bailout logic

*"In economics, a bailout is an act of loaning or giving capital to a failing business in order to save it from bankruptcy, insolvency, or total liquidation and ruin."*<sup>2</sup>

Detailed material and description about the complex aspects of the USA bailout is

summarized at [Emergency\\_Economic\\_Stabilization\\_Act\\_of\\_2008](#).<sup>3</sup> Or watch the video: [Why Wont The Bail Out Work?](#)<sup>4</sup>

There are funny discussions about the nature, probably it is better to call it, the ideology and stratagems, of what's going on today in the economic world.

The funniest chapter is the emergence of an ever growing debate about the transformation of the relationship between capital, economy, market and state, governments, administrations, bureaucracy.

Things are not as funny as they could be. The biggest economic crises since the last big crash is producing serious global poverty and will become a good reason for further wars.

What's annoying me is that the same stupidity of our ruler and their academic adviser is going on without any interruption or critical reflection on what happened and is still happening.

The same politicians and Nobel Prize Winners are on the floor.

Do we have to enter this debate?

There is no need to get messed up about their opinions.

It seems to be good enough to think about the most simple structure of the whole manoeuvre to understand its logic and strategy.



<http://cartoonbox.slate.com/hottopic/?image=23&topicid=279>

The state, of whatever governmental form, from the Swiss democracy to Gordon Brown's British parliament, the USA to China, the state is asked for or is offering a bail-out of companies, corporations, institutions which are running into bankruptcy.

The bail-out is paid by so called tax payers money. Hence, the state will take over such companies to some degree in ownership and regulations. It is seen as a reversal of the

process of privatization. Some, are happy to interpret it as the symptoms of the end of capitalism.

There are others, not many, for good reasons, which are more cynical and are understanding the bail-out manoeuvre of the state as a coup of the capital to overtake the state with its tax payer's money and its power of regulation.

This position in the debate is still hidden in the background. It would be too dangerous to defend such a complementary position explicitly and with the proper intensity.

It is said that the state will take shares of the companies and will use more control over them. Does it matter? There will be bankers and managers from the side of the capital which will enter the save heaven of governmental offices to do the job. Hence, the capitalist bankers are becoming administrators and the governmental administrators are becoming bankers.

The governmental bankers, which had been in charge to control the capitalist banks, are as much involved in the crash as their colleagues from the so called private sector.

Both positions of the debate, surely, are demanding for themselves unique truth of their interpretations. Only debaters with some secured positions are liberal or tolerant enough to accept, at least, the existence and relative reasonability of the complementary position. But that doesn't matter, now.

Hence, we are at the beginning, again. The crisis is declared as much too serious to allow the luxury of philosophical reflections and distinctions and is only weakening, argumentatively, the severity of the global situation.

In fact, there is, up to now, no debate at all. The opposite position to ones position in this virtual debate is declared as mislead and for empirical and logical reasons as wrong.

It is still the dominating position that the government has to save the failing industries (banks, car, insurance, etc.) with the help of bailout strategies.

The government declare, it will use the tax payers money properly, fulfilling highest standards of economical thinking and ethics.

It doesn't matter, where the money is from, directly from the national tax payer or indirectly, via China e.g. The government wasn't elected to spend this money especially for bailouts, anyway.

Is the tax payers money private or public?

Is a tax payer private? What happens if the so called worker is his own capitalist? A shareholder of "his" company for which he is now on the way to pay his bailout with the generous help of the government? And the capitalist, e.g. the manager his own (self-

)exploiter?

Hence, the tax payer is paying the bailout of his company where he is a shareholder and a worker at once, which makes him a owner of the company, which is, together with him, on the way to bankruptcy. This surely has to be prevented, otherwise the tax payer gets unemployed and is losing his status as a shareholder of his company.

It also has to be prevented because the tax payer could start a *rebellion* against the whole system, paid on the base of his private money he put aside. But how and where?

There are no capitalists nor workers, anymore. Both are intertwined into the complex reality of globalization and the self-exploitation by anonymous corporations.

That is, public money from the private tax payer has to save the private company owned by the capital. The state wants to become a part-owner of the capital with the money of the private shareholders of the company.

The mission is to save employment for the private shareholders.

This sounds humanitarian and is in harmony with a progressive protestant work ethic.

*But this is only one side of the coin.*

Is it not better for the public capital and the markets to get as much capital by the state's private capital to be fit to survive against the consequences of mismanagement and global competition?

In fact, and this will become, in the future, more and more obvious , the capital has to be made fit against the cultural limitations of Western science and technology and their decline.

The so called nationalization of markets is in fact a disguised *overtaking* of the state by the capital.

The state, complementary, is hallucinating a control and annexation of the markets and the capital. He wants to become owner of the banks, etc.

The bailout '*Promotes centralized bureaucracy by allowing government powers to choose the terms of the bailout.*' (Wiki)

The state is playing the rescuer of the markets to save its own existence.

The capital is overtaking in disguise the state to save its own existence.

Therefore, the whole bailout saga is a secret *coup*:  
*coup d'etat and coup de capitale.*

The common of both is the commotion and the threat of their proper existence.

Both forms of existence are fundamentally out of date and obsolete.

The *epistemological* problem is:

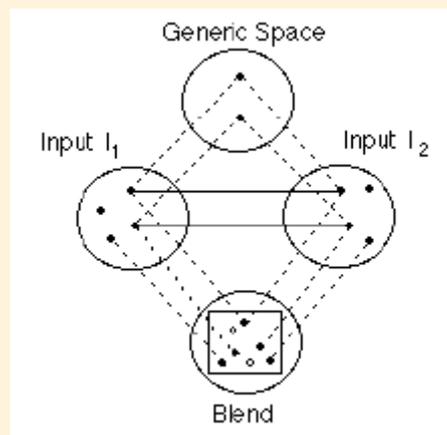
The (bailout) situation is polycontextural and self-referential, and our mathematical and computational paradigms, ideologies and tools are mono-contextural and linear.

[...]

### 3.2. Blending of bailout

The blending interpretation of the bailout is blinding for the fact that the emergent features of whatever mélange between capital and state has first to be generated and paid.

But a blending approach, with its undecided mix, is best prepared to offer the necessary structural vagueness and non-transparency for ever growing new departments in the opacity of both administrations, the state and the capital.



<http://marktturner.org/blending.html>

### 3.3. Chiasm of bailout

Inter-dependencies of both, capital and state, still intertwined and reciprocally dependent, but at least a holistic and processual conceptualization and understanding of the mechanism is uncovered and conceived by the chiasmic thematization of the bailout..

The chiasmic approach of the bailout is emphasizing the *complicity* of both movements, the privatization and the nationalization, as belonging to the same reality.<sup>5</sup>

Hence, any controversial debate, like with the logical, contradictorily or antagonistic, modeling, which is understanding the parts as singular or in a reflective turn as dual, is obsolete within the chiasmic understanding.

What has to be studied is the inter-relational complicity of both interpretations, their chiasmic relationality, like the coincidence and exchange relations. To function as a whole of interdependency, the exchange relations between the opposite, but common terms have to be adapted by the coincidence relations

between the similar but distributed terms.

The *dualistic* interpretation of the situation is conflictive and is not offering a tribune for negotiation. One, and only one interpretation is accepted by the defenders as adequate and true. On the base of such blindness, only ethical and moralizing judgements and the cry for more interventional actions are available.

The *chiastic* interpretation is offering an insight into the very mechanism of the conflictive situations. The mediating contextures of the chiasm is placing the structural possibility of negotiation and resolution, albeit inside of the framework of the scenario.

Both positions, the dualistic and the chiastic, are accepting the situation as it is. This is reasonable for descriptive and analytical motives. Despite its non-classical conceptuality, the chiastic model is not yet offering any structural strategies to overcome and reject the structural fundamentals of the whole situation.

As a result, a kind of a humanitarian harmony of the antagonism remains as the ultimate aim. This solution of the problem is guaranteeing a safe return of the problem on a new, more complex and reflected level of development, securing an even deeper and broader stage-management of the “*eternal recurrence*” of booms, bubbles and crashes.

### **3.4. Diamond of bailout**

The diamond approach is not denying the correctness of the chiastic modeling of the antagonistic situation but is trying to reject the whole construction in favor of a future-oriented transformation, where the components or “objects” of the chiasm, state and capital, are dissolved.

The diamond approach, with its complementarity of *acceptional* and *rejectional* thematizations, is separating the antagonistic aspects from their intertwining complicity. Both are conceived as autonomous societal movements, crossing at some parts, historically, and disappearing into other situational interactions.

Their complicity is historic and there is no necessity to reduce social life to it.

Because of the autonomic interplay between acceptional tendencies, framed by *categories* and rejectional tendencies, framed by *saltatories*, a chance to separate both structurations (of societal structures and movements) is conceived and accessible to realize.

### **3.5. The bailout of the bailout**

Rejection of the figure of bailouts by *dissemination* and *subversion*.

The bailout of banks and industries by the governments is a big sandbox game: moving money, power and control from one societal heap to another societal heap of a national and/or global economy framed by the opposition of capital and state.

#### **3.5.1. Dissemination: Polycontexturality of society**

Polycontextuality of society is dissolving such terminological identifications like 'state' and 'capital'. Terms, like 'state' and 'capital', are not observer-independent identifications, like 'potato' or 'herring', which in fact are neither. They are depending on observations and are set into multiple perspectives, which are dissolving their a-historical and nominalistic identity.

Polycontextual logics are prepared to describe, formalize and implement such complexities in an adequate way.

Gunther Teubner is describing the challenges for law and society and its understanding by polycontextual thematizations.

*"In Habermas' "ideal speech situation", formal procedures are supposed to guarantee the undistorted reciprocal expression of individual interests as well as their universalization into morally just norms. However, polycontextuality, one of the most disturbing experiences of our times, thoroughly discredits these recent variations of a Kantian concept of justice.*

*"With polycontextuality understood as the emergence of highly fragmented intermediary social structures based on binary distinctions, society can no longer be thought of as directly resulting from individual interactions, and justice can no longer be plausibly based on universalizing the principle of reciprocity between individuals."*

*"In these perspectives, irreconcilable incompatibilities result from colliding social practices each of them endowed with their own rationality and normativity and with an enormous potential for mutually-inflicted damage.*

*The highest degree of abstraction has been reached by Gotthard Günther who radicalizes polycentricity into a more threatening polycontextuality, that is, a plurality of mutually exclusive perspectives which are constituted by binary distinctions. They are not compatible with one another and can be overcome only by rejection values which in their turn lead to nothing but to different binary distinctions." (Teubner, p. 4/5)<sup>6</sup>*

### 3.5.2. **Subversion: Morphogrammatology of sociality**

A morphogrammatic subversion of the understanding of society is rejecting their leading concepts and models of monetary and phono-logical interpretations.

Subversion, hence is not rejection *"which in their turn lead to nothing but to different binary distinctions."* Binary distinctions discovered by rejections are establishing, again, contextures albeit new ones, and thus there is, in this strategy, no escape and nothing left except of contextures, and contextures of contextures.

There is not much to tell about such a morphogrammatic turn or abstraction, i.e. subversion, and it is hard to write and to inscribe how to subvert the surface structures of society to 'enlight' its hidden actional structuration by morphogrammatology.

Morphogrammatology is abstracting even from *"the highest abstraction"* (Teubner) of the contextures of polycontextuality.

To try it with metaphors, it seems to be reasonable, in what ever logic or rationality, that contextures too, are taking *place*, are *positioned* and *localized*, where?, in a kind of space(s).

Such a space might be called an inscriptional space or even more metaphorically a (meta-/proto)conceptual space, giving space and loci for *éspacement* (spacing) and *temporalisation* of positioned contextures and their interplay. Such a space is empty of all kinds of conceptual characterizations but it is nevertheless not a vague void, but structured, organized, beyond the dictatorship of order and chaos, axioms and rules.

That bailouts for state and capital can happen in a specific societal space, which has to be spaced and temporalized by actions and activities before/after capital and state can happen on/off historical stage of history, bailouts to save living space and future(s) have to be discovered and invented beyond state and capital.

Without fundamental *change(s)* nothing will be changed for the future.

### FULL TEXT:

[http://www.thinkartlab.com/pkl/media/Bailout Strategies/Bailout Strategies.html](http://www.thinkartlab.com/pkl/media/Bailout%20Strategies/Bailout%20Strategies.html)

[http://www.thinkartlab.com/pkl/media/Bailout Strategies/Bailout Strategies.pdf](http://www.thinkartlab.com/pkl/media/Bailout%20Strategies/Bailout%20Strategies.pdf) posted by

Rudolf | [4:49 AM](#) | [0 comments](#) [links to this post](#)

**February 2009** / [http://www.thinkartlab.com/CCR/2009\\_02\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2009_02_01_rudys-chinese-challenge_archive.html)

SATURDAY, FEBRUARY 21, 2009

## Xanadu's textems

### **Diamond theoretical reflections on hypertextuality**

#### FULL TEXT

<http://www.thinkartlab.com/pkl/lola/Xanadu-textemes/Xanadu-textemes.pdf>

#### **Abstract**

Xanadu is still not yet realized. Nevertheless, it is appropriate, not only to understand its principles and its radical difference to established Web hypertext and multimedia, but to try to think and design even more advanced concepts of non-traditional interactions. One interesting extension of identity-oriented thematizations is opened up by polycontextural, kenogrammatic and diamond approaches to text theory; proposed recently as textems or textemes. Textemes are based on the interplay of anchored semiotic diamonds and are delivering necessary environments for transclusions. Transclusions and transjunctions are modeled additionally in a polycontextural setting. The characteristics of 'electronic' text in contrast to 'physical' paper texts are emphasized.

#### **1.1. Hyper-textuality**

Since some decades, everybody knows Xanadu and nearly nobody ever has seen it working.

Most people think of it as a special kind of a hypertext project with two-way links and connected with projects like

Hypercard. Hence, the focus is on the machinery of links.

Personally I had a similar perception and therefore wasn't specially interested in it.

But there is a very crucial distinction at place which makes a profound difference to all kind of linking systems. It is Nelson's insistence on the difference of 'physical' and 'electronic' documents. At the first glance this seems to be obvious and trivial too, but it isn't at all.

There is a lot of postmodern writing about the virtuality and simulacrum of electronic media. Nevertheless I couldn't find any conceptually and technically useful elaborations.

With such a change, from the 'physical to the 'electronic', in the ontological and epistemological status of documents and texts, the whole topic of links (transclusions, deep links, content links, etc.) appears as a 'natural' consequence of the new understanding of text ('electronic', digital, 'virtual').

### 1.1.1 Ted Nelson's Xanadu

*"To Project Xanadu, that means enacting two types of connection: profuse and unbreakable **\*deep links\*** to embody the arbitrary connections that may be made by many authors throughout the world (content links); and **\*a system of visible, principled re-use\***, showing the origins and context of quotations, excerpts and anthologized materials, and content transiting between versions (transclusions).*

*This may be simplified to: connections between things which are **\*different\***, and connections between things which are **\*the same\***. They must be implemented differently and orthogonally, in order that linked materials may be transcluded and vice versa. This double structure of abstracted literary connection --**\*content links\*** and **\*transclusion\*** -- constitute xanalogical structure."*

#### **Transclusion**

*"Transclusion is what quotation, copying and cross-referencing merely attempt: they are ways that people have had to **\*imitate\*** transclusion, which is the true abstract relationship that paper cannot show. Transclusions are not copies and they are not instances, but **\*the same thing knowably and visibly in more than once place\***. This is a simple point which is remarkably difficult to get across. While copies and cross-reference are workarounds in place of transclusion, aliases and caches are **\*forms\*** of transclusion."*

#### **Text is not simply text**

*"Nelson always meant hypermedia when he said hypertext, it's one of the things that people get wrong about Nelson. They think that they've invented **hypermedia** and he only invented hypertext. He meant 'text' in the sense of corpus, not text in the sense of characters. I know this for a fact because we've talked about it many times (van Dam 1999, interview)."*

Hypertextuality in the sense of the **Web** and its WEB-0.X-mythology, is restricted to a unidirectional exchange of signs as data without environments. Web links are not only uni-directional by definition but they have only two logical states: broken/unbroken.

It would be great to enjoy a more dynamic bi-directional Web connectivity in the sense of *transclusions* (Ted Nelson). But Xanadu links are postulated as UNBREAKABLE. Does it matter if they are one- or two-way links if they are not qualified to *perish*? <http://www.xanadu.com/xuTheModel/>

#### What's an 'electronic' text?

It isn't easy to characterize properly 'electronic' or 'digital' texts and documents in the sense of Nelson's intentions.

One hint is given by the distinction of "*same*" and "*different*" instead of 'equal' and 'unequal'.

*"... connections between things which are \*different\*, and connections between things which are \*the same\*."*

A further hint to the different epistemological character of 'electronic' texts is given by the necessity of 'orthogonal' structures.

*"They must be implemented differently and orthogonally, in order that linked materials may be transcluded and vice versa."*

Furthermore, 'electronic' texts are characterized by a complementarity of polar distinctions, i.e. by a double structure of 'content links' and 'transclusions'.

*"This double structure of abstracted literary connection -- **\*content links\*** and **\*transclusion\*** -- constitute xanalogical structure."*

Some more distinctions might help to grasp the specific character of 'electronic' texts.

1. The mainstream understanding of text is still dominated by the sentence-model. A text is a composition of sentences (phrases, statements, etc.). A sentence is ideally a well-formed statement with a clear meaning.

2. Hypertext in the mainstream understanding is a text of a text. As a meta-level, a markup language is constructed to link textual elements of the primary text.

*"In a classical node-link hypertext, a graph can be constructed on the set of nodes where each edge is identified with a link and structure discussions typically take place with respect to this graph." (Neumuller, p.89)*

*"The Web link is in essence little more than a goto or a jump instruction to the Web browser to retrieve and display a new document." (ibid., p. 149)*

3. And to give the whole thing some meaning, a markup language of a markup language of the ordinary text is introduced. This is the concept of text in an ontology-based *Semantic Web*.

4. Nelson's *Docuverse*, "deep electronic literature", virtual documents

"...transclusions are hard to formalize in graph theory: are they nodes themselves? If they are, they would transform trees into directed graphs. I have included them in this section, as they seem to mark a breakpoint of graph theory." (ibid., p.90)

The same at different places, without 'physical' representation by copy-and-paste.

"Transclusions are not copies and they are not instances, but 'the same thing knowably and visibly in more than one place'." (Nelson)

### **Key Concepts**

- Parallel Documents
- The Big three : Transpointing, Transclusion and Transcopyright.
- Transpublishing.

Hence a further aspect of the epistemology of 'electronic' texts is the fact that they have to be *placed*, that they have to take *place* in a textual space. There is no such thing in classical text theory as a textual place or *locus*. This shouldn't be confused with the triviality that in classical text theory all kinds of topologies, hodologies and super-graphs might be used to explain, model and formalize classical texts as complex objects.

FULL TEXT

<http://www.thinkartlab.com/pkl/lola/Xanadu-textemes/Xanadu-textemes.pdf>

posted by Rudolf | 6:40 AM | 0 comments [links to this post](#) 

THURSDAY, FEBRUARY 12, 2009

## **Diamond Text Theory**

### **From signs to textems**

FULL TEXT

<http://www.thinkartlab.com/pkl/media/Textems/Textems.pdf>

<http://www.thinkartlab.com/pkl/media/Textems/Textems.html>

"From signs to textems" is sketching the basic constituents for an intertextual theory of texts, based on the diamond concepts of bi-signs and textems.

Applications to inter/intra/trans- and hypertextuality (Xanadu) are sketched.

Some remarks about the relationship between semiotics and Gunther's place-valued logic in the 70s are added.

### **1.2 Inter/intra/trans- and hyper-textuality**

#### **1.2.1 Signs and environments**

Text theory seems to be fundamental for any media and cultural theory.

But classical, modern and post-modern studies of intertextuality in general is restricted

mainly to a semantic or pragmatic level, concerning the intertextuality of meaning as an interaction of different texts, discourses and stratagems in translation, interpretation or reconstruction of what happened anyway.

Poetic, evocative, propagandistic and prophetic modi, transformed by post-scientific writing, are taboo to the enlightened elite.

The basic semiotic system of whatever color is presupposed by such highly propagandistic and delirious and post-technological SiFI-fantasy and are not by themselves involved into the interaction of intertextuality in general.

It is understood that there is no semiotic theory of sign systems which is reflecting inner and outer environments of basic signs as a constitutive part of the definition of signs.

The literate reader of postmodern education will know very well that he will fail to answer a single question about how his or hers pragmatistic, interactive, discourse driven, multimedial, deconstructivist, quantum-inspired dialogism (and much more) is working.

The laconism to write of/on signs and their paradoxical subversions is not generating jobs.

Therefore, a first step to a general theory of interactional semiotics on the base of the new concept of textems, i.e. bi-sign systems or anchored diamonds, consisting of the semiotic intra-kernel and the semiotic internal/external environments, and its interplay, is proposed.

#### **1.4.4 Conceptual graph for two bi-signs building a textem**

A textem consist of two diamondized anchor signs, i.e. bi-signs, inter-playing together by their mediated external environments.

Hence, a textem is an interplay of two bi-signs.

A bi-sign is a diamondized anchor sign, i.e. a sign with intrinsic environments and its anchors.

This is a kind of botton up introduction. Because we know signs and have not yet experienced textems, this way of building up textems is legitimate.

But nevertheless, it works only because we know how to construct textems out of signs which are not able to offer any of the principles of textems, which are needed to realize such a construction, like their chiastic interplay between the environments of signs, the environments of signs and the anchoring of signs.

As we no well enough, signs lack environments, there is no chance to construct out of signs inn sign-theoretical sense a semiotic environment of the sign conception.

And obviously, there is no such mechanism as a chiasm in the sense of proemiality for signs.

Hence, neither environments, internal and external, nor interactions between signs based on their environments are conceivable.

Therefore, as a consequence, there is no such thing as a reduction mechanism for textems, which is reducing without loss, textems to signs. On the other hand, after the intuition of textems is introduced, formalized and implemented, reductions are naturally available.

Hence:

A *textem* is reducible to its interacting bi-signs by excluding its chiasmic interactivity. A semiotic *diamond* is a bi-sign, de-rooted from its anchor.

A single *bi-sign* is disconnected from its neighbor bi-sign, hence it is a bi-sign without interaction but realizing an anchored semiotic diamond with its isolated, and hence restricted, environment.

A *sign* is a semiotic diamond, deprived from its environment.

## FULL TEXT

<http://www.thinkartlab.com/pkl/media/Textems/Textems.pdf>

<http://www.thinkartlab.com/pkl/media/Textems/Textems.html>

posted by Rudolf | 8:47 AM | 0 comments [links to this post](#)

March 2009 / [http://www.thinkartlab.com/CCR/2009\\_03\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2009_03_01_rudys-chinese-challenge_archive.html)

SUNDAY, MARCH 29, 2009

## The Chinese Challenge-华文?谁怕谁!

推广华语理事会推出崭新的活动《华文?谁怕谁!》，让华族新加坡人和永久居民，通过有趣的问答游戏，感受中华文化的博大精深，深化对文华华语的认识，并进一步提升华语掌握能力。

## The Chinese Challenge

*"The Promote Mandarin Council has launched an exciting new initiative, The Chinese Challenge, to encourage Singaporeans and Permanent Residents to enjoy and improve their Mandarin and deepen their knowledge of Chinese culture through experiencing the finest in Chinese culture and language."*

<http://www.thechinesechallenge.sg/>

*"If we can raise the level of Chinese language and appreciation of Chinese culture, it could have an indirect impact on our economy in the future," he said."*

<http://www.straitstimes.com/>

# The Chinese Challenge

# 中国挑战

**The Chinese Challenge: Hallucinations for Other Futures**

# ***What can we learn from China that China is not teaching us?***

It is the paradigm of writing on which main cultures are depending. Their kind of rationality, their efficiency of technology, the way they organize society and communication, arts and sciences, all are not to separate from their paradigm of writing. How people are involved in writing and scriptural practice is enabling their possibility of thinking and living. Main cultures always depend on their paradigm of writing. Writing in general is the most abstract mechanism and technology of cultural, political and technological formations.

中

国对西方的挑战不是经济的、也不是政治的或者军事的；苏醒的技术中国和经济中国这个事件并不构成对西方的所谓的"大挑战"，真正的挑战是重新发现她的文字系统，并设计出新的理性形式系统，就像创造新的数学和新的编程语言一样；是面对一个崛起的中国我们是否做好了充分的准备。

The Chinese Challenge to the West is not economical, political or military. It is not the event of a re-awakening economic and technological China which is the Grand Challenge to the West but the possible re-discovery of the operability of its writing system for the design of new rational formal systems, like new mathematics and new programming languages

[http://www.thinkartlab.com/CCR/2006\\_08\\_01\\_rudys-chinese-challenge\\_archive.htm](http://www.thinkartlab.com/CCR/2006_08_01_rudys-chinese-challenge_archive.htm)

## **Text in Chinese**

[http://www.thinkartlab.com/pkl/media/The\\_Chinese\\_Challenge-CN.pdf](http://www.thinkartlab.com/pkl/media/The_Chinese_Challenge-CN.pdf)

## **Video Chinese&English**

<http://www.youtube.com/watch?v=jCNcFmPI-9E>

posted by Rudolf | [6:54 AM](#) | [0 comments](#) [links to this post](#)

**June 2009** / [http://www.thinkartlab.com/CCR/2009\\_06\\_01\\_rudys-chinese-challenge\\_archive.html](http://www.thinkartlab.com/CCR/2009_06_01_rudys-chinese-challenge_archive.html)

THURSDAY, JUNE 11, 2009

## **Luhmann's secret diamonds**

### **New entries for the Zettelkasten**

FULL TEXT

[http://www.thinkartlab.com/pkl/media/Luhmanns\\_Diamonds/Luhmanns\\_Diamonds.pdf](http://www.thinkartlab.com/pkl/media/Luhmanns_Diamonds/Luhmanns_Diamonds.pdf)

[http://www.thinkartlab.com/pkl/media/Luhmanns\\_Diamonds/Luhmanns\\_Diamonds.html](http://www.thinkartlab.com/pkl/media/Luhmanns_Diamonds/Luhmanns_Diamonds.html)

### **Abstract**

A kind of a similarity between Luhmann's concepts of sign, system, difference and re-entry and the main figures of diamond theory is observed.

## 1.2. Interpretation

It seems to be more fruitful today to thematize and formalize Luhmann's distinctions with the help of *diamond* theory instead of the *Calculus of Indication* of George Spencer Brown.

A key notion in Niklas Zettelkasten, obviously, is *self-reference*.

The other crucial notion is the self-referential concept of *difference*.

With that all kind of connections to logical, methodological and epistemological considerations are provoked. A strange connection to Spencer-Brown was inaugurated, mainly by the influence of Heinz von Foerster. The re-entry figure became a *machina creativa*, albeit nobody had a training in formal languages at all.

### Difference and relation; *différance*

But Luhmann's work is about social theories and not about logic. Neither is Luhmann's theory of social systems a semiotic or semiological theory. This point is not yet well understood. Semiotics, but the french "sémiologie" too, are based on *relations*, triadic for semiotics and dyadic for semiology. But Luhmann's concept of a self-referential and "therefore", paradoxical concept of difference isn't based on relations but on difference (*Unterscheidung*). Relations are presupposing difference, and are thus secondary to the paradox concept of difference. Relations are logical and not paradoxical.

Derrida has given strong deconstruction of the semiological and semiotic sign concept and its relational foundations in logocentrism. With his radicalized interpretation of de Saussure's semiology, he transformed the concept of difference to the paradoxical non-concept of *différance*. The difference of the difference, the *différance*, is not in a relationship to relations.

Similar, Gotthard Gunther's non-concept of *proemial relationship*.

Hence, Luhmann's insistence on self-reference might well be reformulated in different ways. One, which I proposed for many years, is interpreting self-reference and its circularity in the framework of a polycontextural understanding of *chiasms*, i.e., technically, as proemial relationships.

Now, after this chiasmic theory got some maturity, albeit not much recognition, it is time to introduce the *diamond* approach to difference and circularity of system and environment. Diamond strategies are a further radicalization of the earlier approach of polycontextural chiasm.

Also Luhmann's work is not well known in the Anglo-Saxon world, it isn't a wrong feeling to observe that also the themes and topics, and their highly reflected treatment by Luhmann, has no real existence in the world-leading sociological literature of the super-power theoreticians.

## 2. Supplementing the Zettelkasten

It doesn't seem too risky to risk an interpretation of Luhmann's theoretizations out-side or beyond second-order cybernetic figures and metaphors.

In other words, is there a strict necessity to understand Luhmann's adventure in terms of his entries of his own Zettelkasten?

Is it possible to 're-construct' his constructivism and re-enter into it without its terminology and jargon of difference, distinctions, re-entry and self-referentiality?

Luhmann's theory is self-referential, thus it could refer to itself in different terminological modi, and still keeping its adventures strategies and networks of constructing a de/constructive theory of social systems alive.

Hence, I will take the risk to supplement the Zettelkasten by smuggling some non-contents of diamond boxes into this, now electronic, Zettelkasten.

By re-reading the passage with its introduction of the difference of *system* and *environment*, I think that I'm observing, or as I prefer to say, hallucinating some features not yet been recognized and mentioned, neither explicitly by Luhmann nor by his followers.

Self-referentiality without referentiality?

The rhetoric figures of Luhmann's texts are not necessarily determined by the frameworks of the used technical weaponry. The cage of the jargon is not necessarily incarcerating the dynamics of the gesture.

Technically, I try to understand Luhmann's theory of social systems from the viewpoint of polycontextural and diamond systems. Hence, I try to avoid to go into the litany of second-order cybernetics, systems theory and Spencer-Brown's Calculus of Indication and its extensions.

Even more technically, my interpretation of Luhmann's gestures with the introduction of his rhetoric figures is due to a morphogrammatic subversion, abandoning any jargon and terminological content, as crucial as it might be, and conceiving the dynamics of the pattern, only.

After this new diamond approach is introduced, experienced and further developed, a renewed lecture of Luhmann's work as involved with the above mentioned second-order trends, might happen again.

The term "diamond" refers to itself, only. There is no reference to exposed marketing labels necessary.

## 2.2. Uncovering Luhmann's diamonds

### Statement

*"When a communication constitutes a previous communication as a communication, it simultaneously distinguishes it from all those other things in the world that are not communication. In this sense, all operations of autopoietic systems always constitute the difference between the system and its environment"*

How can this happen? If an operation of an autopoietic systems is producing by its action, i.e. operation, both, the intended operation and at the same time, the operation of distinguishing the system of the first operation from its environment, then it "*constitute[s] the difference between the system and its environment*". How is an autopoietic operation simultaneously operating in its domain (system) and producing an environment of the domain? Or in other words, how is an operation operating that it is able to operate and thereby by such operation constituting (operating) its own environment?

The first answer, which might be given by Luhmann is the hint to Spencer Brown's Calculus of Indication: "Draw a distinction!" With this distinction, the 'world' is 'divided', i.e. 'distinguished' into two parts, the *inside* and the *outside* of the 'world' or 'space'.

But what is given by the CI? Two 'equations'.

In this formulation, no world appears. The world or space is presupposed and realized by a sheet of paper or another

medium of inscription. This might be interpreted cognitively by a user of the CI. And this interpretation will become a meta-theoretical environment of the calculus. But nevertheless no part of the calculus in question.

Again, "*When a communication constitutes a previous communication as a communication, it simultaneously distinguishes it from all those other thing in the world that are not communication.*"

### **Interpretation**

*"When a communication constitutes a previous communication as a communication"*

This is involving several procedures:

1. "*communication constitutes a previous communication*", this might be naturally understood as a *composition* of two communications.
2. "*as a communication*" means, that the composition has to be realized as a composition of communications and nothing else. But this condition is exactly what is called the '*matching conditions* for compositions'.
4. With this formulation we get a clue to understand what could be meant by the consequence: "*it simultaneously distinguishes it from all those other thing in the world that are not communication.*"

This consequence of the composition of communications is following *consecutively* the 'assumption' of the operation of composition albeit it states its *simultaneity*.

### **Diamondization**

Luhmann's communicational statement, the 'axiom' of communication, interpreted as a categorical composition of communications offers a natural introduction of the otherness of communication, i.e. the simultaneous environment of communication by the saltatorial hetero-morphisms.

It needs two communications to realize communication and its environment as the singular otherness of communication. This asymmetry is directly covered by the saltatories of diamond theory, which are complementary to the categories of communication.

Because of the operativity of the diamond interpretation of Luhmann's conception of communication, communication might now be studied operatively on all levels of complexity and complication necessary, together with their interplay.

This diamond interpretation is not reducible to the indicational calculus and its use for autopoietic and communicational systems.

Again, what are the conditions for communication? Communications have to be "*anschlussfähig*", i.e. they have to fulfil the conditions of connectivity.

In category and diamond theory, such conditions are exactly the *matching conditions* of composition.

Now, there are two possibilities opened up.

One insists that the conditions of the possibility of something are not identical with such a conditional something. The other position could take a highly formalistic turn towards self-referentiality and postulate that there is no logical difference between the conditions of something and such a something.

Without doubt, the latter position leads quite directly to logical paradoxes. But who cares?

Why should we use logic? And which logic anyway?

It also could be mentioned that the comparison itself is too much restricted by logic and alternativity.

The first position sounds harmless if we take the statement in a hierarchical way, i.e. if we postulate a sequential order between the conditions and the entity. But why should we accept this decision as the only working

possibility?

The diamond approach, obviously is postulating a simultaneity of both thematizations, the conditions of the possibility and the characteristics of the entity.

It might be a question of taste which of both positions has to be considered as more crazy: the ultra-formalistic or the diamond approach.

### **Re-entry and in-sourcing**

*“To cope with these consequences of a re-entry of the internal/external difference in itself, the system needs and constructs time.” (Luhmann)*

Again, in-sourcing:

*“The idea of in-sourcing the matching conditions into the definition of diamonds seems to be in correspondence with the two main postulates of “Chinese Ontology”, i.e., the permanent change of things and the finiteness or closeness of situations. That is, diamonds should be designed as structural explications of the happenstance of compositions and not as a succession of events (morphisms).”*

The figure of re-entry tries to correspond to the device to include *“the internal/external difference in itself”*. This happens in *“consequences”* and needs/constructs time.

Hence, the idea of a simultaneous realization of the difference of system and its environment gets lost in the infinite delirium of self-reference.

In-sourcing the matching conditions of composition is a finite and simultaneous constellation of categories and saltatories. It is the interplay of both, categories and saltatories of a diamond constellation, which is realizing the figure of re-entry in a finite and differential manner.

Both strategies, the re-entry and the in-sourcing, seems to correspond to a similar gesture.

### **FULL TEXT**

[http://www.thinkartlab.com/pkl/media/Luhmanns Diamonds/Luhmanns Diamonds.pdf](http://www.thinkartlab.com/pkl/media/Luhmanns%20Diamonds/Luhmanns%20Diamonds.pdf)

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