

CONSCIOUSLY INTENDED REASON FOR INTELLIGENT FAITHFUL EVOLUTION

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Abstract. *To come closer to consciousness on the way to simulate intelligence by intelligent simulation, we approach simultaneously faith, intelligence, and their main link, conscience. Simulation is the relation between function and structure. Simulation of conscience demands transcending from computability to simulability following philosophical goals, by integrating essential mathematical and physical knowledge. We are intelligent, so we are conscient; evolution demands construction; both call for contribution. A way to begin is a hierarchical self-reconfigurable hardware-software cosimulation. A way to continue is a self-reconfigurable hardware-software partition. A way to approach reality is an intelligent self-reconfigurable system.*

Keywords: *abstraction, conscience, faith, intelligence, simulation.*

1. HIERARCHIC INTELLIGENT APPROACH

Algorithms, designs, artificial systems can be computer simulated so they represent computability bottom-up (understanding, verification, learning) or top-down (construction, design, plan). Algorithmic is equivalent to formal approach. Hierarchy types open the way to simulate intelligence as intentioned adaptable consciousness, extending present computing limits. Enriching the template concept to structures, we create a theoretical kernel for self-organizing systems, based on a hierarchical formalism, and resulting in theoretical development and efficient application to different cosimulation types of reconfigurable systems. // ↑ abstract

Class (↑concepts) ↔ virtual object-oriented framework

Symbol hierarchy (↑mathematics) ↔ stepwise formalism

Module hierarchy (↑managing) ↔ recursive stepwise managing of types on levels

Construction hierarchy (↑simulation) ↔ multilevel simulation framework for different abstractions

Knowledge hierarchy (↑theories) ↔ reflexive abstraction, aiming that each level has knowledge of its inferior levels, including itself; this hierarchy type enables consciousness.

Knowledge and construction have correspondent hierarchy types: their syntax relies on classes, their meaning on symbols and their use/ action on modules. Their hierarchies cooperate to integrate design and verification into simulation: structural object-oriented concepts handle data and operations symbolically [1].

The hierarchy types can be formalized in the theory of categories. The hierarchical types are objects of equivalent categories - functorial isomorphic, formally representing hierarchy types. The consciousness hierarchy type communicates to the other hierarchy types by countervariant functors, while the others intercommunicate by covariant ones.

Constructive type theory permits formal simulation by generating an object satisfying the specification. Applying similar abstraction kinds to hard and soft representations and operations based on object-orientation, symbolization and structural abstraction can be extended from soft to hard.

A generic type has the ability to parameterize with types a hard/ soft element. Recurrence is confined to discrete worlds while abstraction is not. All this suggests searching for understanding following mathematical structures that order algebra into topology. *Reality is beyond Nature.*

The alternative ways followed to extend the computability concept concentrate respectively on the mental world of the good managed by engineering, the physical world of the truth researched by science, and Plato's world of the beautiful abstractions discovered by mathematics. We follow the mathematical paradigm of intelligent simulation by functionally modeling the self-aware adaptable behavior to simulate intelligence.

To begin was the word. Words enable us to express ourselves, to be humans among humans. The expression is complex, so it has to be hierarchical in order to be comprehensible. Words are sequences of letters, sentences are sequences of words, and texts are sequences of sentences. Phrases, paragraphs, subchapters, chapters, volumes, etc can enrich the levels of the textual hierarchy. Hierarchy is not necessary linear. The basic hierarchical type is tree-like, to optimally represent the generic strategy of divide et impera et intellige, or even graph-like, in order not to constrain the links between levels. Class, concept, term are aspects (syntax, semantics, pragmatics) of the expression. Class is a primitive notion. Set is a class that belongs to another class. Class operations are paradigmatic: serial (\cup), parallel (\times), and hierarchic (\wp - set of all parts). The possible expressions form a language [2].

Syntax, semantics, and pragmatics define any language; the rules of each of the former defining components to refer, respectively, to correct construction, interpretation, and application. Syntax is determined grammatically. Grammars are of different types that can build a hierarchy that corresponds to the reciprocal inclusion of the defined languages. Grammar is a language that refers to the language that grammar defines, i.e., is beyond the defined language – a metalanguage. This is another hierarchy type than modularization (of a text) or inclusion (of the languages due to the stronger rules of the defining grammar). Its definition is based upon the principle that each level is a metalevel of its inferior ones [3]. Further, the language can be symbolic, and symbols can symbolize other symbols, what reveals another hierarchy type. We classified, symbolized, divided into modules, and reflected an inferior level (language) on a higher one (grammar). Grammar as language has a grammar that, if isomorphic to the initial grammar or to the language itself, means a reflexive language, i.e., capable to express itself. Classes, symbols, and modules permit the construction of a system that structurally implements a function expressed in a language, i.e., behavior. In the same way, with classes, symbols, and modules, the behavior of a structurally described system can be determined. Another hierarchy type orders the variety of languages describing function and structure - the simulation hierarchy assists passing from the goal function, constrained by functional parameters, to the structural form, and inversely, determines the mathematical function or the physical behavior of a system defined by structural properties.

Function is a transformation, mathematically formalized, $f \in \text{Domain} \rightarrow \text{Codomain}$, or physically instantiated as temporal behavior. Structure is a set of properties that characterize a mathematical or physical space. The properties can be constant or variable in time, reflecting static or dynamic structures. Simulation is the relation between function and structure. Structured set = (Set, structure). Language/ system is a generic form of a mathematical/ physical model. Model results from an inversion-able representation of the simulation object. Abstraction is a human defining capacity that enables him to think. Hierarchy is a functional/ structural concept that fulfils mathematically/ physically the concept of abstraction [4]. *Hierarchy = syntax (abstraction)*

Researching intelligence by simulating it, to enable intelligent simulation, demands the study of combined essential mathematical structures (algebra, order, topology), to understand the different hierarchy/ abstraction types. By the hierarchic relation between static

and dynamic structures, and that between structural and functional, simulation contributes essentially to understand the human mind. As in any dichotomy, intelligence and faith can converge toward integration, or can destroy one another if not associated. Conscience is the link between them.

To prevent the danger of dichotomy, we concentrate in three different ways on the unique Reality (Plato): Art for the art - to look for the essential way; Science with God's fear - to search the existential truth; Engineering-technology - to understand the being and to concentrate more on the spirit in our life.

2. ABSTRACTION – HIERARCHY - REFLEXIVITY

The power to abstract is the crucial difference between human and any other natural being. Divide et impera et intellige applies the hierarchically expressed abstraction. The abstraction can be simplifying or reflexive. The first concentrates on a superior level the information considered essential for the current simulation approach. Reducing the informational complexity affects positively both syntax and semantics; it can be only quantitative, but also qualitative, i.e., it can affect the simulability of various aspects of the simulation object.

The reflexive abstraction, expressed as the knowledge hierarchy type, tries to better self-understand on each superior level, by better understanding more of the inferior levels. We extend the reconfigurability to the simulation itself. First, by a self-aware simulation, we get self-control of the simulation process building a knowledge hierarchy corresponding to the simulation hierarchy. Then, by expressing both simulation and knowledge hierarchies in the reference system of the basic hierarchy types (classes, symbols, modules), we create the context for a self-organization of the simulation.

The triad of the basic hierarchy types corresponds to the fundamental partition of the real life (beauty-arts, truth-science, good-engineering) that has to be continuously integrated by philosophy (essence, existence, being). Therefore, we try to model the conscience for simulating the intelligence, and then to reach for intelligent simulation. Both intelligent simulation and the simulation of intelligence demand transcending the present limits of computability toward simulability, by an intensive effort on extensive research to integrate essential mathematical and physical knowledge guided by philosophical goals.

Arts and science are equally noble, even if one appears rather spiritual and the other rather material. Their alliance is vital and demonstrates the insolvability of the nowadays spirit-matter dichotomy, and of all resulted secondary dichotomies, actually functionally generated by the space-time dichotomy that is necessary to the human evolution.

Society is only the memory of the past, the manager of the present problems, and the assurance for a right future. We have to live together in respect of the others on the way to understand each other, in order to evolve toward essential beings for an integrated existence. Human among humans should reflect a strategic equilibrium, without hiding or even violating, as happens nowadays, the principle that the society has to assist the individual, to educate him/her correctly, enough and unconditioned, and to help her/him by an intelligent faith to search and research the unknown.

The unknown can be interpreted as a unique God that represents the absolute freedom by understanding all the necessities, and the absolute unity by closing the divide et impera et intellige necessary to the Way to look for the Truth along the Life.

Reason is an extension of the Nature. Nature is not an ephemeral context, but the matter we are built of to develop spiritually. The integration experiments for the Spirit-Matter dichotomy failed because of their extremism. The present society is extremely materialistic, and tries to destroy every trace of ideal.

We have to surpass the limits imposed by the essential dichotomy by a unique ideal, named God, constructive by continuous intelligent reconfiguration. Intelligent simulation means to integrate simulation and its knowledge hierarchy, converging to self-consciousness of the intended adaptable simulation as in Fig. 1.

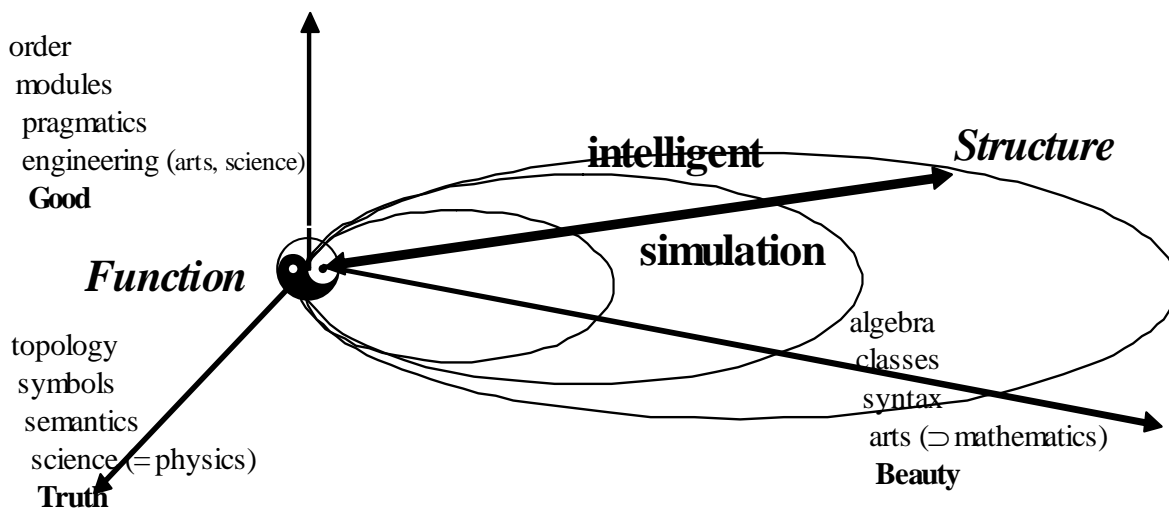


Fig. 1. Hierarchy Types Diagram. The \odot represents the absolute functionality and the waves are increasingly structured hierarchy levels for simulation and for knowledge.

The hierarchical types are objects of equivalent categories (functorial isomorphic) formally representing hierarchy types. Consciousness hierarchy type communicates to the simplifying hierarchy types by countervariant functors, while the simplifying types are connected by covariant functors. Fig. 2 explains the yin-yang as structure of the human mind.

Philosophy is not a specialty but a human right. There have to be schools to prepare the teachers of philosophy for the other humans. These schools have to develop also respect for those that look for the way on one of the three alternative paths that correspond to the fundamental partition (arts, science, and engineering). Because recently the essential divide et impera do not intellige, the only philosophers are the masters in: arts – especially mathematicians, and others that, aware or not, compose mathematically, science – physicists, and those that do not forget their science is a chapter of physics, and engineering – mostly those working in domains that attain the limits of the pure Reason [5]. Pure Reason is the context-free evolution of the human adaptability.

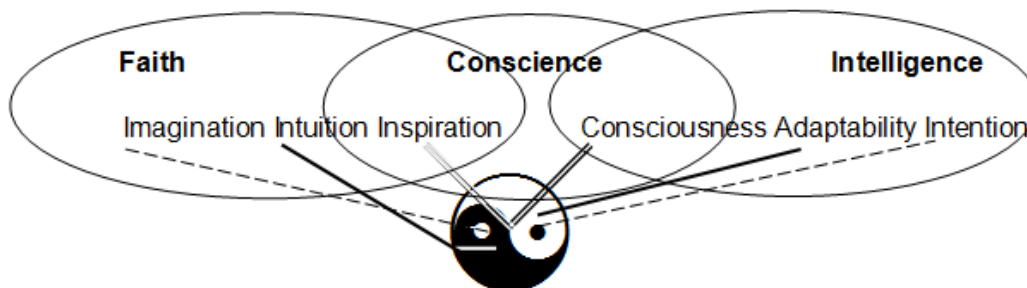


Fig. 2. Human mind.

$$\begin{aligned}
 \textit{Intelligence} &= \textit{Consciousness} \times \textit{Adaptability} \times \textit{Intention}; \\
 \textit{Faith} &= \textit{Inspiration} \times \textit{Intuition} \times \textit{Imagination}; \\
 \textit{Conscience} &= \textit{Consciousness} \times \textit{Inspiration}.
 \end{aligned}$$

Mathematics is one of the arts, and music is at least as beautiful and expressive. Mathematics does not demand an extraordinary talent, allows a reasonable dialog about it, and has well-defined reconfigurable limits of that it is aware. Mathematics has to be educated as soon as possible and has not to be confounded with its handcraft.

The music gets more often out of its character. The two arts evolved together: Bach, Vivaldi, Haydn were musically gifted mathematicians, who preferred the liberty of the music to the bands of the Reason. Reason, as initial zone, makes mathematics more sure but less charming than the other arts that can refer directly to the Reality: music and literature. The visual arts are too dependent of the Nature because seeing is the most used sense for the human natural being.

The mathematics school is continuous, whereby the literature and the music can generate sooner higher singular peaks: Shakespeare, Beethoven. Arts are free. But mathematics first expressed reasonably that Reality could only be known by Reason. Mathematics is the most accessible of the arts, science of the abstract ideas, and engineering of the Beauty. It discovers and studies structure types: (algebra, topology, order) corresponding to (construction, orientation, understanding). Mathematics is an example to science and engineering of correct and complete integration. Arts for the arts is a self-referent definition, the liberty to create beauty, by thesis-antithesis-synthesis, dialectic principle for the evolution by closure to the inverse.

God is in us - as the Faith is part of our definition, *with us* - by the others, and *for us* - by the spiritual evolution, that is first conditioned, and then assisted, to be followed, by the social one.

Physics is the Science. The other natural/ social sciences are its chapters, even if they are not yet aware of it, or just try to return to their riverbed by intermediary specialties instead of integrative bridges. As any artificial system, the society is structured on natural bases, and it develops by natural laws. While the modern age, these laws were forced towards Reason, and recently they got out of control. The social laws got also unreasonable (in the bad sense). Physics is essential for the constructive reconfiguration of the Faith. Physics is the paradigmatic science, the art to represent the Nature - as exercise for the Reality, the engineering of the Truth.

Physics has to integrate the fundamental forces in a theory, and all natural and social sciences as chapters, leading them to a real application of mathematics. Social sciences study a universe as complex and nondeterministic as the natural one, therefore mathematics is at least as important. Recognizing physics as the fundamental science, mathematics could be more directly inspired by the sciences. Science raises the fear of unknown, and the research inspired by it, to zones that are more abstract: defined by God's fear when we look for the Truth. Science evolution results from qualitative leap consequent to consistent convergent quantitative accumulation.

Engineering is most frequently both art and science, and is as important as arts and sciences in the fundamental partition of the Reality needed for evolution. However, it is more dangerous than its alternative approaches, of which it has to be strictly bridled. Reasons are twofold: its result, called technology, is defined by its complement - so it is not superior to this, and it does not impose spiritual proximity between the creator and the user - so it can be applied in a complete different scope than it was generated. Any engineering is the homonymous complement of a special science that collaborates with mathematics. Therefore, this problem is solved if the sciences are integrated into physics and if mathematics remains one of the arts.

Engineering (art of construction, science of simulation, technology of Good) should develop closer to mathematics (approach, integration of parts, not only applying techniques), and to science - courage, multiple perspectives, not regarding only the results. Concentrating

exclusively to the Good in the life is very dangerous, as the third part of Reality, also called mental world, is then defined by its complement, and therefore is not superior to it if not closely constrained by Arts and Science. Denying the negation is not a context-free game.

To go further, thinking while advancing, we divide twofold as we cannot yet Intelligere the dichotomies: Spirit-Matter (force-substrate, soft-hard) \Rightarrow real-natural (continuous-discrete, analog-digital), structure-function (representation-simulation), real-possible, perspective-profoundness, beauty-truth (arts-science, mathematics-physics) \Leftarrow space-time (evolution). There should be no balance in most of the dichotomies; \odot represents by rotation any of them.

Philosophy has to learn us about essence, existence, and being. Our conscience is our representation of the essence of our existence as being; so it tells us that God is in ourselves, for ourselves, and among ourselves. Further, we have to be in order to search our essence researching our existence.

*Dear God, search from the Sky, see and research this Vineyard (Life),
implanted by Your Right (Truth),
and complete it (Way)*

Orthodox Pantocrator

3. EVOLUTION BY CLOSURE TO THE INVERSE

Divide et impera et intellige has three parts as alle guten Dinge sind drei of the most philosophic European people. Mathematics develops by three basic structure types, integrating them. We divide our Universe in three worlds: essence, existence, and being. We divide our existence in three interdependent components: arts, science, and engineering corresponding to our beauty-loving ideas, our truth-searching efforts, and our good-oriented constructions. The third part is presently exaggerated to exclusivity. As the Reality contains abstract ideas, even if physics could explain everything as being discrete, the power of continuum cannot be forgotten. Consequently, the analog engineering cannot be neglected in modeling and simulation.

Physics permanently uses as dichotomy the discrete-continuous, while the engineering-technology just adapts intuitively (as any primitive life form) to the requests of a consumption-oriented society (as that of the primitive life). The Reason for this is that presently the engineering neglects the inspiring arts, and the consciousness for the science conditioning its existence [6].

For physical or philosophical orientation, we need cardinal points. To inspire ourselves of the most pure of the arts, we learn about cardinal numbers - although, being sincere, mathematics leads the way to show that nothing is pure, so without leaving anything behind, the way has to be followed further.

Cardinal numbers are numbers of elements in a set; sets can be infinite. The Nature demands the least infinity and is defined by (0, successor, induction): $\text{card}(\mathbb{N}) = \aleph_0$. Adding is in Nature's definition. However, the inverse operation, subtraction, needs negative numbers. We close mathematically the Nature to an integer world that opens physics to recognize the limits of the Reason (electrons), in the meanwhile, attracting marvelous engineering solutions for different technologies. Electronics is among the most advanced engineering sciences; therefore, it has to be practiced by the most conscient human beings.

Recurrent addition is multiplication, a most important parameter for the Nature. Mathematics closes the integers to the multiplication inverse, defining the rationales. They are not more than the naturals; we can do many useful things with the Reason, from strategy to computer. So what else do we need? say too many, forgetting that the limits of the, so-called,

pure Reason are caused by the fact that it bounds itself to close the adaptability to discrete/ sequential operations.

Thanks God, neither mathematicians, nor physicists accept all-happiness. They discover in three ways (order, algebra, analysis), which assist all of them to think together, the power of continuum and that of the patience.

Mathematicians and physicists are the theorem, natural laws, or even new approach discoverers, and more, the engineers that understand the essential of mathematics and of physics, being able to find informally new ways. Presently, we talk about electronic computers, but the nowadays trend is to copy from the living nature, i.e., the emulation of the advantages the living beings show to achieve unconsciously complex duties. The vanguard domains are biotechnology and computational intelligence. We understand well neither life nor intelligence, so it looks like *Zauberlehrling*. More important is that emulation is less human than simulation, so they should develop in parallel, permanently exchanging experience. Reality does not reduce to Nature, as $\text{card}(\text{IN}) < \text{card}(\text{IR})$. Reason is the closure of the Nature relative to the primary operations, as \mathbb{Q} is the closure of IN to the inverse operations of addition and multiplication. However, the Reason is dense in Reality, as the real numbers are the analytical closure of the rational numbers i.e., $\mathbb{R} = \{\lim_{n \rightarrow \infty} (q_n) \mid (q_n) \in \text{IN} \rightarrow \mathbb{Q}\}$. The Reality extends beyond Nature and Reason, not just for the quality of the quantity, but also regarding the power of transforming operations. \mathbb{R} is the closure of \mathbb{Q} to the inverse of exponent-operation – the last arithmetic operation resulted by recurrence of the prior one, which can be pursued by Reason. Further, the closure regarding the inclusion order – the set of all subsets of IN , \mathbb{Z} , or \mathbb{Q} in general, of countable sets, is the uncountable \mathbb{R} , representing the power of continuum. To get from \mathbb{R} to \mathbb{C} is just a matter of imagination. Reason closes the Nature to the inverse of natural operations.

Reality is the closure of the Reason to the inverse of artificial operations, to the reasonably deducted infinite, or to an order over the being itself. We know that if there were no cardinal number between the natural / integer/ rational discrete and that of the real continuum, then the logic would include the principle of the excluded tierce. This hurts the Human, who is fond of nuances [7]. Therefore, we can imagine an intermediary level between Reason and Reality (*non-constructive*). There are angels between Human and God said the wise.

The density of Reason into Reality means that every real is the limit of a sequence of rationales. Therefore, we hear nowadays that if we master the Reason, Reality becomes a complexity problem, i.e., speed of convergence. We dare use mathematics as metaphor for the relation between Nature and Reality, but it is only a correct inspiring analogy. \mathbb{R} is an initial step in mathematics for algebra, topology, and order. Mathematics is for Reality just one of the favorite ways to get the Human closer to it. There were times of the Reason when mathematics was free, creating itself the necessities, and even if physics had sometimes to make the needs aware to mathematics, they both always followed the way to Reality. Nowadays, there is no Nobel Prize for mathematics, only for its economical applications. Nowadays, there exists no liberty by understood necessity, only a so-called one by satisfied economical needs. *Nowadays, Reason cannot reflect Reality.*

The density of \mathbb{Q} in \mathbb{R} shows that between any two real numbers there is a rational one. Therefore, Reality is much more than Reason can even imagine, but something reasonable exists between any two real objects (*non-intuitive*).

Neither Intuition nor Reason arrives to something that mathematics proves elementary. As any true art or beautiful science of the ideas or phenomena, mathematics does not limit itself to either Intuition or Reason, allowing them to collaborate by Conscience. The Faith experiment, based on concentration, search, and construction, took place in the Middle Age by spiritual and chivalrous search, mediated by Masonic buildings. The Cathedrals were

the symbol of the coming revolutions that intended to institute the constructive Faith as basis of the human society. *Architecture is the simulation-intelligence type hierarchic level containing essentials of both functions as structure.*

Napoleon's Code witness that the prepared superior level of the human-social evolution was not any sort of capitalism, more general of socialism – meaning the upside-down human system that gives priority to the society relative to the human.

Capitalism is just the worst socialism, imposing an arbitrary Good-oriented universal measure. Even mathematics concentrates exaggerately on computable (discrete) information, physics finds the limits of the Universe (inside of what?), while engineering has just to serve the Good-oriented society to transform the human into a social reasonable robot.

Now, society is conservative – it tries to last forever at any evolution level, using a common measure. Everything can be evaluated, although most of the essential things on that our existence bases its being are not measurable. The so-called *pure reason*, i.e., the context-free Reason – most adaptable, conscious only for having, intended by the tactics of the consumption society, and totally unfaithful, gives the necessary force to stagnation or even to choosing a wrong way.

Unfaithful means here that the components of the Faith (Inspiration, Intuition, Imagination) are used separately to serve the competition for the Good that makes present Life credible. However, the society is less than reasonable, whereby, the irrational of arts, particularly in mathematics, is more than reasonable, opening the way to Reality by closure to an essential and radical operation. To master the New Power of the continuum is beyond Intuition and Reason, if they do not integrate by Conscience and do not collaborate by Imagination and Intention [8].

The historical experiment of the pure Reason was the necessary intellectual condition of the first, and by now – the last, social revolution. The initial goal of this event was a reintegration of the ways to search for the Spirit from the Matter (knights) and for the Matter from the Spirit (monks), during the pure Faith experiment. It failed because it kept the arms, the wars, and the social classes, against it had risen.

More important, the experiment continued beyond its historical limits, what created the context to renounce to human dignity in order to reduce the human mind to adaptability and to throw Conscience and Faith into facultative. The reduction of the constructive thinking to pure Reason weakened the human mind and made possible to restrict the point of views to the most dangerous of them. The number of alternative paths, totally different but convergent to Reality, must be 3 – the last prime number successor of another prime.

The concentration of the mind on the reasonable control of the adaptability followed the spiritual revolution, which tried to bring into individual and social conscience that the human has chosen the evolution without disregarding the eternity or knowing the way. The spiritual revolution selected a primitive form of *divide et impera et intellige*, to research what is partially known, leaving the unknown to be approached at the end of the first step; the *intellige* is contained in the *impera* of the unknown that has to begin after the *impera* of the partial known, with the completed knowledge that results. This first step was done simultaneously by the institution that still pretends to serve God - (Luther, the knight popes), and by the most human Reality approach—the arts (Rinascimento, Descartes). Their strategies were human-oriented. The contradictory sentence "to serve God" had sense as long as the Church tried to simulate the human conscience. Perhaps was its partition thought as *divide et impera et intellige* for the Way–Catholic, the Truth–Orthodox, and the Life–Evangelic, but there came no *intellige*, and all of the alternatives fell into the exaggerating "-ism". Perhaps this is analogous for Christians searching a beautiful Way, Jews researching a true Truth, and Buddhists engineering a good Life!? But many of us, of any religion, and respecting the

traditions, are conscious of the way to follow, do not expect anything from a metareal God (sounds like material), and are free to laugh even of their deepest Faith.

Moreover, we are able to have a good Life, just enough to concentrate on the Truth and to follow a beautiful way. The concentration of the society on the material component of the human existence was necessary to liberate them of inhuman problems, not to attract the humans on secondary path. The antique Greece is an inspiring model (substituting slaves with intelligent systems).

The Reason experiment had to finish two centuries ago, when: We could consider just the simplifying types of hierarchy (classes, symbols, modules) and then express the construction, hoping to aim the absolute liberty, if we considered God as the simplest, totally unconstrained, essence of the Reality.

However, we can simulate/ construct/ work/ live, associating knowledge hierarchies to all our activities, aiming to constructive understanding of *the most complex absolute necessity, by this defining God. Abstraction is the human gift to go beyond natural limits extending pure reason to real intelligence*. Neither intelligence nor life is well understood, remember Goethe's Zauberlehrling. More important is that emulation is less human than simulation, remember Mozart's Zauberflöte; they should always develop in parallel, permanently exchanging experience, remember Thomas Mann's Zauberberg. *God is the absolute abstraction - the evolution goal for faith-assisted intelligence*.

The pure Reason experiment climaxed by an unprecedented number of contemporary geniuses. This proved that people have to select wisely and to construct in good understanding and courageously a society that encourages/ assists them to evolve beyond the attained peaks: Beethoven, Mozart, Gauß, Cauchy, Fourier, Laplace, Goethe, Schiller, Franklin, Kant or Hegel. The cathedral builders tried to extend their work at a continental scale, neglecting the people on the building area, whose culture did not concentrate on to have but godly simple on to be; Napoleon, a genius of the military and social strategy art, showed that a new social form, reasonable in his plans, can not be imposed by the force against the revolution had fought. A century after Bonaparte, a German genius of strategy, Otto von Bismarck, learning from his predecessor's experience, was more successful in unifying Europe. As we said, the pure Reason experiment was of the form: complete the better-known part (Bonaparte) to its limits (Bismarck), to have more chances beyond the limits. However, this time the materialistic forces were already masters of exploiting the instabilities, and hurried up to transform Europe in a laboratory to compromise any idealistic movement. They helped the generation of these movements and directed them to terrorism.

The falling and remaining in materialism hurt a lot both Nature and Human. The importance of the experiment was significant, but its continuation after the results could be interpreted has killed countless people and even cultures. Nowadays the materialism torments increasingly, threatening the future. The adaptability-based Reason cannot explain or control thoughts, even if sequential is extended to unlimited parallel/ nondeterministic [9]. Anyway, these desired operational properties can be found mainly in the right faith-oriented side of the mind. Further, the difference between continuous and unlimited parallelism is positive. Therefore, the Reason has to be Faith-dependent completed to Intelligence. A Human needs Conscience to integrate Intuition and Adaptability to surpass the Matter by Spirit. The prior considerations inspire to propose the thesis, formally sustained in the category theory:

$$\text{Conscience} = \text{closure} ((\text{knowledge} \circ \text{simulation})^{-1}) (\text{Conscience}) // \text{initially Conscience} = \text{Consciousness}$$

4. CONCLUSIONS

Intelligence simulation designates the project to understand and technologically implement hardware-software a conscious adaptable knowledge generation/ processing. We changed the standard name of artificial intelligence, to emphasize the need to understand the simulation as approach to the intelligent simulation of intelligence. The simulation of intelligence uses intelligent simulation, which is based on intelligence simulation. The hierarchical simulation, assisted by mathematics to get theoretical and formal, can lead to comprehension of the results.

The approach has to be concentrated on the knowledge hierarchies, to simulate metaknowledge, for the system's adaptability, and for searching the way to simulate the Conscience. A reactive controlled continuous soft/ hard process replaces the recursively controlled sequential one. Most probably only the sequential reasoning distinguishes two limits of the computability, i.e., speed and possibility, in the essentially unique problem: the Conscience.

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Manuscript received: 10.11.2010

Accepted paper: 05.12.2010

Published online: 01.02.2011