THE INFORMATIC ANALOGY
An explanation model for NDEs

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Translated from French by Jeanine Viallet

1-Introduction

The Nde (Near Death Experience- EMI or imminent death experience in French) are a real challenge to the common sense and the science of our time. I am not going to relate in detail this sort of experience, see the site of Iands France (http://www.iands-france.org) for further information.
Although I have not experienced myself anything of that sort, I don't question the truth of it and what is reported about it. This is why I wonder about a possible explanation, the science of the moment doesn't give any answer and the official explanation is hallucination. I think a new science, an extension of the one in the moment, is to be found or invented.

I am giving here some extracts from my book "analogic thoughts" with the intellectual proceedings which lead me here. Particularly:

-about progress, for the evolution of science
-about analogy, for this kind of intuitive reasoning
-about suffering, a central notion in Buddhism with the vacuity which seems to have some correspondance with the informatic analogy (a cheer for the virtual)
-about love, my idea of the central notion with the NDE
-about atom and relativity, where I elaborate this informatic analogy with modern physics. It is to be noticed here that this conception is corroborated by the quite recent theory of "granular universe" by Lee Smolin

After that some considerations are made to conciliate NDE with cosmic computer.

In the manner of a Lucretius who came to the conclusion of the existence of atoms through only just observing familiar elements and reasoning, I am here elaborating an intuitive hypothesis wich remains to be put into equations so as to become a real science (somewhat in the manner in which Lee Smolin discretized the equations of relativity).
It's up to you research workers and mathematicians.

2-About progress

For a well formed conscience, that is to say for grown-ups, the world perception refers to one's culture. This world-vision will be fashioned according to one's own religion, personal convictions, but mainly in Occident according to the world scientific understanding. For instance, everyone is fully acquainted with the fact that the earth is round and one is easily aware of it when phoning to a distant place or when watching TV in direct when the altering of the time is to be taken into account- or else quite simply watching a satellite photo: Galileo has come into our everyday life.

Just as well the theory of the species evolution, the atom discovery, the big bang theory, lead to a vision and an understanding of what is surrounding us which is quite different from what it was a century ago.

Considering this evolution in the scientific ground one can honestly think that progress has not come to an end and will be going on in the future years and centuries (which the "reductionists" are used to forget, for them everything has already been discovered).

Let us think about the wonderful technical achievements, for example in electronics or radio: that would mean magic for someone born one or two centuries ago. In sheer extrapolation, sciences considered nowadays as "magical" could then be expected in the future. Quite a lot of ideas nowadays classified as belonging to esoterism are likely to be part of official science in the future.

One can wonder to what point evolution will get in a short while, let us say in twenty or thirty years time, one can expect to be still alive to see this progress by ourselves. But one can also wonder what could happen in the long run for future generations. In the both cases I think that science fiction is having a part to play so as to enable us to imagine the universe of possible achievements.

As a line for progressing, science will undoubtally have to explain the NDE some day (near death experience or imminent death experience) in which dying persons see themselves going out of their bodies, they observe and then disappear into a luminous tunnel. It is just the same with the astral journey (a voluntary going out of one's body) which is practised among others by the Tibetan people.

Science could also be expected to give an opinion about the idea of reincarnation.

And then there are quite a lot of unexplained phenemenons (premonition, synchronicity...). If one is convinced of the veracity of these phenemenons and the fact that science describes reality, it is normal to think that this science is incomplete nowadays but that it should be able to explain or at least describe such phenomenons in the future.

Nowadays we are living in a period wonderfully rich in technical progress mainly as regards micro-informatics and molecular biology. The last century has been extremely fertile with two major theories: relativity and quantic mechanics.

A question can be asked: why ourselves? Why are we born exactly in this period when sciences are accelerated?

Already in the ancient times, Lucretius in "De natura rerum" was observing technical progresses (war machines, seafaring) and his conclusion was that the world was young, or otherwise these innovations would have come into existence long ago.

There are periods for acceleration and periods for stagnation, undoubtedly our period is exceptional.

But what part are we taking in this evolution? Apart from the very few scientists and research workers who make science progress, the common citizen is satisfied with observing either by keeping informed in foremost readings, either quite simply with observing the technological progress arround him. Technology has become democratized with industrialism and the consumer is often in the first line for innovations.

At the best one can be satisfied with waiting for novelties. What can be said is that we are placed in a favoured time and place for observing this kind of evolution.

3-About analogy

Asking oneself questions, thinking or reasoning means using the language at our disposal. But are these words able to grasp a somewhat fundamental reality?

One may be tempted to answer in the negative:
-the mystics from different origins seem to assert the ineffableness of their experience
-the Orientals insist on practice, saying that reasoning is not enough to reach awakening
-the new fields of knowledge are bound to create their own vocabulary
-the laws of nature obey, through physics, to a mathematical language.

The words then would be at a loss and experience could not be easily transmitted. But faced with the unknown, all the honest man can do is to use the notions he has at his disposal and knows, and so he has to reason in analogy.

So the ancient myths are stories showing gods or semi-gods having human characteristics so as to try and explain natural phenomena. This is a human analogy to answer fundamental questions such as for example the creation of the world and man.
Besides the gods in antiquity have a human character, thunder representing god's wrath or else this god can reward or punish.

And then, one can see in the past the use of agricultural metaphor, for example in the bible: for people living on agriculture and sheep breeding, the notion is immediately understood.

From the Renaissance time, with the observation of the sky, analogy becomes mechanical. The planets are balls moving round the sky: this is celestial mechanics.
After that, the triumph of machinism makes things appear mechanically. For Descartes the animals are only machines, some sorts of natural automatons.
In the end, with the theory of atoms, the world is reduced to a gigantic billards game.

But after man, agriculture and mechanics, we now have more modern objects of analogy: electronics intruments such as television, telephone, and also the computer. Nevertheless, the first analogy with man is not so archaïc maybe: after all is not man entity much more elaborated than anything else we can produce?

If there is something (rather than nothing) our senses cannot grasp the whole of it: if human thought is limited by language and vocabulary, our senses are naturally bounded.
Let us consider the case of hertzian or electromagnetic waves: they go through us, through the walls and different obstacles, can bear various peaces of information (music, pictures, informatic files) but we don't have any sensation of it. A radio receiving station is needed to convert these waves into a more accessible form for us. These waves have been discovered only just about a century ago.
As we said above, one can think that science is incomplete today and that other types of phenomenons are most likely unknown to us.

Analogy with the television seems interesting to me. For example one can imagine that the brain is a receiver and that the consciousness or soul is seated elsewhere. As a television set: the picture is not created in the T.V but is only just received, the transmission through the waves being unperceived through our senses. The real center of the picture is the television studio. Of course if something goes wrong with the receiver the picture goes wrong too, just as well as absorbing alcohol or any other substance acting on the neurons disorders consciousness.
Let us imagine a monkey in front of a television: may be he thinks the picture is created in the set or even that the scenes exist in the set itself. Whereas as a matter of fact they are virtual.

But let us now have a monkey in front of a television screen put off. By dint of training the monkey may understand the function of the mirror. In front of a set being put off the monkey may think he has understood the use of it like that of a mirror. This is without taking into account the button "on" which suddenly makes a new function appear. Better than that! You can easily zap. What if man could use his brain like a television "off" or else like a television "on" but thinking there is only one channel, whithout guessing unknown functions?
From the moment when there is something, why couldn't there be something else, perceptible or not?

Informatic analogy also brings new prospects. Our senses enable us to perceive the outward world and everything around us. But what is reality? The informatics, with the coming of the virtual, gives way to new analogy. Such science-fiction films as "Matrix" have been working on the ambiguity between real and virtual, our common reality being in this film the simulation of a gigantic computer.
This comes close to the oriental thesis about reality illusion. It is amazing to see that technological evolution makes it possible nowadays to fit with millenary philosophies.

4-About suffering

This is so important a subject that the avowed aim of a philosophy such as buddhism is to eliminate suffering. But what exactly is this notion?
Suffering is either a physical or moral pain.
As a matter of fact suffering is useful. For example if one inadvertently touches something hot, the ensuing pain makes us at once withdraw our hand and thus avoid its being hurt. Moral pain is useful as well and makes us act according to our welfare, for example the satisfaction of a desire or need.
But such mechanism is blindly produced and quite often suffering is needless. For example for a dying man in his last extremity sufferings are soothened by opium...
Considering informatic analogy again, one can compare pain as well as desire, pleasure and some feelings with a counter. This counter is linked to the rest of the organism (by what I would call "inward" cabling) and goes up or down according to what we are doing.
This reminds us of the small japanese virtual animals (called Tagamushis) which young children were so fond of a few years ago. It's striking how the make of it is easy: they are small electronic cases only just having a clock, a counter (for hunger) a button (used for food) and a bell. The game consists in "feeding" the animal at regular intervals by pressing on the button, or else the counter comes down to zero and the animal dies.
In the case of a sick person relieved by opium, one doesn't act on the pain counter through the normal circuit (curing the disease) but indirectly (or artificially) on the counter by means of the drug.

5-About love

One can observe a living creature's course on earth: Animals are born, they eat and drink to subsist, they grow, reproduce, die. Most of them sleep during the night (which comes from the alternation day/night caused by our planet rotation).
Unlike other species, the brain in a man's baby is not fully developed when born. The baby will go on developping outside its mother's womb and a very long learning will follow before reaching grown up age (officially 18 years old!). What is held from birth for the least evoluated animals requires learning and becomes acquisition for man: culture then performs the part of an "external" ADN.

Besides sexual instinct which is peculiar to all animals and is necessary for the species reproduction, man has developped love feeling which will enable man and woman to remain united, time for them to bring up the little one. Sex, and love as well, in my opinion, then have reproduction and preserving of the species as a finality, as well as its culture.

Beyond the love for a person of the opposed sex or parent/child love, there may be some sort of more universal love for mankind generally speaking: this feeling enables humanity to be preserved just as well in the best possible conditions.

It would be this form of more universal or spiritual love which would be felt during the NDE, concretized by a very bright light.

6-About atom

The atom hypothesis has been verified in the beginning of the XXth century confirming Democrite's intuition. I think all the consequences of this tremendous discovery have not been drawn yet: far from been continuous and infinitely small, matter is discontinuous, discrete. There are "grains" of matter (which cannot be cut into two parts but which can get transformed into other particles), in short matter is finished.

This gives me the impression that there are some guys living on the picture of a screen and discovering they are made of pixels...

It is tempting to extend this notion of discontinuity to space and time: there would be a scale where space could no longer be divided into two parts.

This hypothesis (an hypothesis because this is not observed by the physics of the moment, the grain being supposed to be very small) would be credited as solving the greek paradox of the arrow never reaching its target: the arrow must first fly half the distance between its own position and that of the target, and then again the half of it, and this to the infinite. In our hypothesis of a discrete space, there comes a moment when the notion of half distance does not mean anything and then one goes to the following "grain".

The distance axis and the time axis would be discrete: any interval would contain a finite number of elements, which is satisfying for me on the intellectual point of view for I think the infinite is a view of the mind but doesn't exist in physics.

This notion makes us turn back to informatics where everything is number, but finite number and in consequence computable. The universe could be the result of the calculation of a "cosmic" computer, a computer with gigantic power bearing no comparison with our petty instruments.

But what level of dimension could this granularity have?

Physician Max Planck, combining the constants in physics, found an elementary time called "Planck time" having 10^{-43} (10 power –43) second. He doesn't consider this time as a "brick" but instead of that he says that below this value, the laws in classical physics can no longer be applied. Consequently one would get a "Planck distance" with the value of $c*\Delta t$ # 10^{-35} meter.

In the discrete hypothesis, a position expressed in meter would be a number with 35 figures after the decimal. Time expressed in second would have 43 decimals. The highest possible frequency, or clock frequency of our cosmic computer, would be a value of 10^{43} hertz (10 millions of billions of billions of billions of gigahertz). One can see that even on the atom scale (10^{-10}m) the grain is infenitesimal and one can easily use the differential equations (an approximation on infinetly small) for the functions about waves becoming particles.

About relativity

The hypothesis of a discrete space-time makes it possible for us to have an intuitive approach to what could be called the paradoxes of the relativity theory, at least for common sense. If for example everyone agrees with the fact that c, the light speed, is the greatest possible speed, this limitation cannot be intuitively understood. It is just the same with the relativity of time with speed.

If an "atom" of space Δx is run within an "atom" of time Δt, one can understand at once that the maximum speed is $c = \Delta x/\Delta t$. In a way this is our cosmic computer performance speed.

An intuitive approach of time relativity occured to me when working upon an informatic console table: the computers in shared time treat several users and several calculations at the same time. If someone sets a calculation which requires a lot of means, the rest of the users see the time of response on their screen slow down, which is visualized on the curve of the factor of charge. This curve represents the slowing down of relative time.

If the equivalent of a computer treats in shared time the relative time to an object and the position of it in space, in consequence one can intuitively understand that, loaded by the calculation of position due to a very high speed, the relative time comes to slow down...

7-About the cosmic computer

This is for the setting, but what kind of physical support could this cosmic computer have? As a matter of fact the computer principle, just like the information one, is very abstract. It may take several forms for support. If the usual support is electronical, one can imagine a mechanical computer (the ancestor of which is the counting-frame), an optical computer and so on... One can then imagine any kind of support in another world.

But just as electromagnetic waves don't have any physical support (there is no ether as it was believed last century- as a matter of fact the support is space itself) one could even imagine a computer without any support.

Computer, computer networks, other computers simulating other universes, one can imagine everything.

The advantage with informatics is that everything can be simulated and the only limit is the performance of the instrument itself. If everything is discrete and our universe is the resulting calculation of a huge cosmic computer, the virtual aspect would have a link with the oriental intuitions in the idea that reality is illusion... In the end everything could be in theory permitted.

Our universe is limited by the laws of physics: now nothing prevents our imagining an extension for this universe obeying other laws or limitations... These other possibilities are exactly what can be approached through the NDE sort of experiences.

8-NDE and cosmic computer

The first unexplainable phenomenom which appears in NDE is the "disembodiment" or coming out of one's body (OBE for "out of body experience"). This experience which is also called "astral journey" can also be lived by persons awakened and who are not near death. So the person can watch himself above his physical body, and is mostly endowed with another subtle or astral body, can observe and hear the conversations, enjoys a panoramic vision by 360° and seems to be able to see everything on all sides at the same time.

The person becomes a telepath and the subtle body can go through walls. There is another amazing property: it is enough for the person to think of a place to get there at once...
All this happens with persons whose electro-encephalogram may be flat, and so not having any brain-activity.

Dr JP Jourdan suggests the existence of a fifth dimension in order to explain the visual aspect and the properties of the subtle body. An eventual fifth dimension or even more in extension of our usual dimensions do not raise any problem for mathematics and so can be simulated in our cosmic computer.
But the main revelation with this concern is the duality physical body/spirit: obviously consciousness is not seated in the brain...
One can then imagine that the informations relating to consciousness are stocked in the central memory of the cosmic computer and not in space. The astral vision would be an immediate perception in a gigantic data-base for space-time, somewhat in the manner in which one can visualize a picture in a 3D informatic program: there is no need for physical eyes but the data treatment is direct in informatic memory.
So then the astral body would only just be an avatar making us able to keep physical habits.
Just like in a 3D program one can move instantly at pleasure.
There is not any problem for telepathy in our informatic model: connection with the information source is enough.

There may be zones in the 5th astral dimension in which the persons could create their own realities by themselves, somehow just as when dreaming: at least this is what is reported by some experiencors. At last this dimension would be the dimension of spirits referred to in spiritism.

The next NDE step is that of a tunnel and meeting a light in the end. The experiencor feels infinite love, goes under the impression that he can understand everything, meets a luminous beeing and disappeared persons, and can see the whole of his life filing on in front of him.
Here one reaches the high strata of the ISO model (informatic model with 7 strata: from material to applicative) in our cosmic computer. The omniscience sensation could thus be explained: consciousness having access to a uniersal data-base.
But the experiencors never bring back to us new knowledges: either they have forgotten, or our language is unable to convey fundamental realities..
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The playing back of one's life implies a registering device in the computer for a whole life. Not only persons can watch forgotten parts of their lives but they can also experience the feelings of those around them in the play back.
All this is linked to the esoteric idea of the "akashics" annals which would be the whole registering of the world story, which some astral travellers could consult.

Somehow this stage is a "big gate" which the experiencors never go through- they are told that the time for dying has not come yet and they come back to their physical bodies.
What is beyond this gate: paradise, reincarnation?

The whole of this story does make one think of an informatic game, with different stages to pass. In a way our consciousness would be a prisoner of the program.

Another question is that of time: is there a different time, some sort of non temporal system, in the high strata of our cosmic model? That would make it possible to explain the meeting with disappeared persons and the speed for one's life play back.

9-Conclusion

Trying to explain all the phenomenons by means of a principle in which by definition everything is possible may seem trifling. And yet there seems to me that the informatic model can bring further our understanding of the possibility for so strange a phenomenon as the NDE.

I think that mathematics and the information theories (I am thinking of Turing machines) could make the theorisation of this model progress.

As for experimentation, some astral or "divine" instruments could be invented may be (in the high strata of the cosmic computer) so as to measure something that simply material instruments cannot reach.

In short, everything is information.

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