

ON INTEGRATIVE KNOWLEDGE

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To know is an existence's feature. Knowledge is the main informational behaviour of existence. Human knowledge is only a form of knowledge that interacts with other forms. The *integrative knowledge* must take into account a possible integrative human knowledge acting together with the whole knowledge. Knowledge is also a process evolving in *time*, and it is not only a cumulative process. Knowledge gains and loses. It is an irreversible process, like the entire existence. The *integrative* human knowledge requires an integral human being. The **phenomenological unity** of existence can be known only by a human being that is able to balance a *phenomenological-spontaneous-structural* approach due to its well tuned *spiritual-imaginative-rational* capabilities. But, first of all, we must (re-)gain the ability to feel the subtle signs of existence's knowledge which knows that we know.

In the beginning was the deed
Goethe

1. A THREE-LEVEL DISSOCIATION

For the past two millenniums we have been living in a world which substituted, too many times, the good *differentiations* with bad *dissociations*. Ken Wilber emphasized this process in modernity, but we believe it is latent in Christianity and had only flourished in modernity. In this context various *integrating* processes are justified. There are many to be *integrated* or to be *re-integrated* after a long and disastrous dissociative process. Different kinds of *differentiations* were and are very useful, but excessively applied most of them degenerate in *dissociations*. The integrating tendency is imposed by the increasing understanding that the whole existence is **phenomenal** and only our bad *dissociative* attitude promoted the simplified **formal-structural** approach.¹

¹ “At a certain moment and in a certain part of the world people start to be obsessed of finding fast and safe evolving ways. The most safe way to have a fast solution is to make as much as possible net *delimitations*. Thus, any approach starts by even more rigorous delimitations, the conceptual spaces are dominated by extreme oppositions embodied in irreconcilable dualities. If for Plato, for example, the *Good* dominated lonely, then after a few centuries only, the thoughts about Existence were dominated by the *opposition between Good and Bad*. When rigid delimitations characterize the intimate support of thought, the *Truth's* obsession imposes intransigences in the presence of which the *truth of everyone* turns pale, the imposed joining is possible, the high ways of truth must be traced, in order to be able to march off in a line synchronized in action – not in thought – in the light of the Unique

In this context the discussion about *integrative science* takes place [Kafatos, 2000, Drăgănescu, 2001], about *integrating science and religion* [Wilber, 1998].

Human knowledge is a consequence of a bad dissociation which separates it from a widely spread process: the **existential knowledge**. Before being a human act, knowledge was a process inside of the entire existence. A long time ago we started to speak of *human knowledge*. This was **the first**, strongest dissociation when we forgot about the existence's ability to know.

The second one occurred when the human knowledge was dissociated to know about *structures*, about *spectacular things* and about *phenomena*. Thus, "occur" rigorous forms, beautiful objects, and spiritual feelings. The human being started to *have* spiritual feelings, to *admire* beautiful objects and to *know* only forms and structures. Most of the knowledge degenerated in feelings and contemplation.

The third level of dissociation corresponds to a sort of "labor division". We have now *scientists*, *artists* and *ministers*, each with their own "way of knowledge". The "true" knowledge is practiced only by scientists. When we refer to the knowledge of artists and of ministers we use the term "to know".

We must fight now with all the three dissociations in knowledge. The integrative knowledge means to avoid, in reverse order, all the three levels of these bad dissociations.

First, each of us must become able:

- to practice the formal-structural knowledge;
- to have the imaginative-spontaneous abilities in understanding the spectacle of existence and to contribute to it;
- to feel and to participate to the wholeness of existence.

Second, each of us must use in a non-dissociative manner all the three forms of knowledge, fighting with problems using "synchronously" all three weapons: *reason*, *imaginary*, *spirituality*. In other words, we must transform the dissociation in differentiation.

Third, the human knowledge must "co-operate" with existential knowledge. My knowledge effort, as a human being, is part of a process that is beyond mankind. We know and we are known. "Who" knows us becomes something else and we are forced to take into account this fact. Our knowledge is only part of a very complex process having a permanent output. Knowledge never stops, it is like a "music" continuously interpreted by existence. But what is the result of this existential music? In this respect we must ask the question: what is the result of knowledge?

Truth. The only chance for the human being is to accept the externally imposed split of its personality into a *spiritual* behaviour and a *rational* one. This dissociation, followed by others, will break the individuality and will atrophy natural behaviours. All that the Occidental man created in the last two thousand years is positively or negatively marked by this tendency of *dissociating*." [Stefan '92]

Knowledge is the main, *never ending* deed of existence as a whole.

The human being and mankind tried to distort the main deed of existence, dissociating from it. Now they must reintegrate in this whole harmony. The music of knowledge will sound *well* again.

2. WHAT DOES “INTEGRATIVE KNOWLEDGE” MEAN?

Almost all current concepts are defined in the context of the formal-structural scientific and philosophic approach. Thus, it is not easy to use them in an enlarged context of the phenomenological thought. We must redefine most of them in order to offer coherence and spontaneity to our structural-phenomenological discourse. *Integrative knowledge* refers to the existence as a whole. Therefore, we must define what *knowledge* means in this enlarged context. The following definitions are not formal. They represent only suggestions, guiding our way in the non-formal domain of existence as a phenomenon.

“Definition” 1: *Knowledge is an informational interaction in existence.*

“Definition” 2: *The information in existence is a re-presentation that acts.*

“Definition” 3: *A re-presentation is a partial replication of a sub-domain of existence which is represented.*

“Definition” 4: *A partial replication of a sub-domain is a replication which gains a view point and loses what that view point ignores.*

“Definition” 5: *The view point is responsible for the meaning associated to representation.*

“Definition” 6: *A view point occurs as a spontaneous act of the deep intentionality of existence.*

“Definition” 7: *The deep intentionality is one of the main processes of existence consisting in a spontaneous phenomenological fluctuation.*

A partial replication can have different ranges of similarity corresponding to different kinds of information:

- the phenomenological information is induced by a point of view which ignores the matter and cares of deep meanings (senses);
- the interpretative information deals with informal forms carrying contextual meanings (a meaning occurred in a certain context represents a discontinuity because a representation acquires, in a lost context, a capacity to act somehow);
- the structural information occurs starting from view points dealing with patterns.

These three types of information have associated distinct knowledge modes:

- phenomenological knowledge, operating with deep senses;
- spontaneous knowledge, using contextual meanings;
- structural knowledge, operating with forms and structures.

The *integrative knowledge* consists in all the three modes of knowledge. The existence's processes take into account the integrative knowledge and manifest accordingly in three forms: as phenomena, spontaneous and structural.

Because of the spontaneous knowledge, the integrative knowledge consists in a kind of "signed" knowledge: a knowledge with *gains* and *losses*. The contextual meanings work like an irreversible informational process: the meaning occurs and the context disappears. Existence loses knowledge about itself. *In its becoming existence forgets*.

If existence did not contain intentionality as a spontaneous fluctuation, then knowledge would be only a cumulative process without losses. The *pure* structural-formal existence *could be*² reversible because it is governed by time invariant rules and *pure* phenomenon self-contains all its history. In this case, a *pure* structural-phenomenal existence could be characterized by a cumulative integrative knowledge. However, existence is phenomenal-spontaneous-structural and, in this case, the integrative knowledge is a "signed" process.

What is "existence's attitude" as against human knowledge? Existence transfers the main characteristics of its integrative knowledge toward human knowledge. The human being, as part of existence, acquires knowledge within the limits imposed by integrative knowledge.

3. KNOWLEDGE & TIME

Integrative knowledge is time dependent. This dependency originates in the spontaneous behaviour of existence. In this context, is knowledge about passed phenomena possible? Yes, it is, but only a **limited** knowledge.

Because of the existence's self-knowledge, which contains only non-forgotten representations, knowledge, even if it is integrative, does not have access to lost information. Forgetting is a "symmetrical" process in existence acting like a "garbage collector". Existence maintains in its "internal" representations only the *useful* integrative knowledge. Only the information used to maintain the integrity of existence is preserved.

In some "moments" the spontaneous becoming of existence makes useless parts from existence's knowledge. Sometimes some representations end to act. A representation which does not *act* because its action domain changes or disappears, is "removed" and the integrative knowledge loses some of its content.

² Some times the structural reality could be irreversible. The best example is the structure of the current computing machines (if we add two numbers, then the result does not contain enough information the two numbers just added). It is possible, using Ed Fredkin's proposal, to build reversible computers but there result big and non-efficient structures.

A representation acts only if it is *interpreted* (by another acting representation) or *executed* by a physical structure. If the “interpreter” or the “performer” changes or disappears, then the representation becomes a simple structure without any meaning. Sometimes, if the “interpreter” or the “performer” is affected only by a small change, the representation takes another meaning and the old meaning is lost. In both situations something disappears and does not let any trace in existence.

The informational aspect of knowledge makes it time sensitive. Information is a match between a re-presentation and an “interpreter/performer”. Even if the representation remains unchanged, the “interpreter/performer” can change and thus the information is lost. If changes in the organization of the “interpreter/performer” are purely structural, then there is a possibility to “preserve” the old organization. But these changes are sometimes spontaneous, phenomenological or phenomenological-spontaneous and the informational losses can not be avoided.

Pre- and *ante-*dictions are thought to be possible only in a purely formal-structural approach where we *believe* in “laws” and in “rules”. They should be possible also in a purely phenomenological approach if the human beings had to deal with phenomena.

The “archaic” existence occurs like a partial skeleton and the future existence can be predicted only like a too schematic plan. The former can be rebuilt only approximately and the latter can be designed only as a general frame. Furthermore, it is possible that an approximated approach may leave aside too much about the essence of the “archaic” existence, and it is sure that the predicted frame will ignore the spontaneous behaviour of the future.

The laws of existence (if they exist) evolve in time, together with existence and our knowledge tends to keep into account only perennial behaviours.

The “perfect” integrative knowledge could be only one about the instantaneous “state” of existence. But, even if it is possible, it is useless.

The continuous thread of knowledge can not be imagined because of the spontaneous behaviour of existence. The integrative existential knowledge is a discontinuous process in which some knowledge is lost. Thus the human integrative knowledge has no chance to achieve a complete knowledge about the entire existence. In this context questions about general laws and rules must be formulated carefully. A future integrative human knowledge has more chances than the present dissociative human knowledge, but our expectations must be moderated by a better understanding of what existential integrative knowledge is.

4. THE KNOWLEDGE DOMAINS

Existence is a whole. Knowledge is fragmented. Responsible for this discrepancy is information. The spontaneous phenomenological fluctuations do not affect the wholeness of existence but break the continuous thread of knowledge.

To speak about existence's domains is sometimes useless. To speak about knowledge domains is compulsory. Each knowledge domain must be submitted to a special kind of knowledge. It is very important to have appropriate answers to distinct type of questions like:

- *What can I know about mind?*
- *What do I wish to know about this Vermeer's painting?*
- *What do I want to know about computers?*

Regarding the **first question**, it is very important to understand mind in a specific manner. The intention is useless to know about mind like about planets or computers. Klaus Mainzer is right, in a very well tuned book on complex knowledge:

*Is the "Newton of the human brain and mind" found? Of course not. The complex system approach cannot explain what mind is. But we can model the dynamics of some mental states under certain conditions.*³

If we intend to know what mind is, for example, we must ask the questions in an appropriate manner. *Brain, mind* and *consciousness* are related topics, but very distinct knowledge domains. The brain is, maybe, a structure, mind is a non-formal function of this structure and consciousness is a phenomenological behaviour of mind. How to deal with a non-formal function which sometime behaves phenomenologically? It is obvious that not in a formal-structural way as almost all contemporary approaches try to make it.

Certainly, many things are to be structurally known about the brain, maybe about mind, but a satisfactory answer to the question "*what is mind?*" can be given only in an extended space where, beside concepts, forms and structures, *other kinds of human acts will be involved.*

Regarding to the **second question**, a painting of Vermeer, for instance "A Street in Delft", will be known in a certain way, but this way must be specific. Can this painting be described? It is possible to tell something about the pavement of the street, about the walls of the buildings and so on, and nothing about the visual experience offered by the direct perception of this masterpiece. But, is a description enough to know a masterpiece? Obviously, not. Sometimes a detailed description leads us far from a deep understanding. We must be able to use the state reached in the direct experience of the free contemplation of painting. This state, "added" to the previous experiences and to the formal knowledge previously accumulated will contribute to our knowledge about Vermeer's creation.

The **third question** seems to be the simplest. Apparently the computer domain is completely formal-structural. Wrong! The computer is a tool used by a human being and it is a very complicated problem to understand how to make a computer useful excepting a few typical simple applications. An apparently simple

³ [Mainzer '97], p. 113.

question like “*how can a program for solving the problem P be written?*” doesn’t have a formal answer. It is very simple to explain what a correct program written in a certain language looks like, because it is a problem of syntax. But, what is the way from a problem to the associated program is, at least partially, a non-formally tractable subject.

The main problems regarding the knowledge originate just in the formal-structural domain, at that very place where the problems look simplest. In mathematical sciences there occurred the first signs about the limits of managing the truth. The explanation could be that in mathematics worked the strongest (bad) dissociations which characterize the knowledge process. The formal sciences, which most exercised different ways of knowledge, guided our research beyond the formal-structural approach.

We have assisted in the last half century to many ridiculous attempts to use the formal-structural approach in inadequate domains. The brute force of our computing machine also stimulated many inadequate approaches in different knowledge domains. But this over-trust in the power of forms and of concepts had a good point: it emphasized the fundamental limits of the bad dissociative processes which have oppressed us in the last two millennia.

The good differentiations of the knowledge styles will impose:

- the *structural knowledge* based on a rational use of formal forms;
- the *spontaneous knowledge* based on an imaginative use of forms;
- the *phenomenological knowledge* based on the human ability to be connected with the wholeness of existence.

If this differentiation doesn’t degenerate into a strict dissociation, the three emphasized styles are able to fruitfully “collaborate” in the human integrative knowledge. Each time the integrative knowledge will be dominated by one of the previous styles, depending on the knowledge domain. But, no time one of the previously emphasized styles will be ignored by the human integrative knowledge.

We must know that each “part” of existence must be submitted to a specific knowledge, specified by an appropriate set of weights associated to the three styles. Human integrative knowledge implies that no weight has the zero value.

5. FINAL VIEWPOINTS

The spontaneous behaviour of existence was emphasized in the ancient Greek philosophy. The atomist philosophy introduced the *clinamen* in order to explain how the actual things occur. But, this kind of behaviour is also responsible for the “signed” existential integrative knowledge which limits the human integrative knowledge to what is not-forgotten.

We are in the stage of substituting *bad dissociations* with *good differentiations*, in order to make steps on the way leading toward the integrative knowledge.

Our far away target is to integrate the human integrative knowledge in the existential integrative knowledge accepting the limit imposed by the spontaneous behaviour of existence.

The first step in this very long process is *to put aside Ockham's razor because the existence is a complex spontaneous whole.*

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