

## Ontology of Knowledge

logico-philosophical summary (issue 20240111)

The Ontology of Knowledge (OK) does not claim to expose the truth of reality but only to propose a coherent model of representation according to which:

- Reality is not subject to form or time.
- The Knowing Subject is a wave of meaning running through the immobile reality.

Let's start with a simplified model : a structure of links between elements with more than two links per element.

*NB: this structure, as a logical object, is not subject to time.*

The abundance of links in this structure is such that it would be impossible to ordain the elements in any space regardless of its number of dimensions. Such a structure would in itself be unspeakable.

Let us call "**ordering modes**" all the possible ways to follow the links, without excluding superposition between order modes.

OK postulates that among these ordering modes there necessarily exist some which present a statistical equilibrium between expansion and contraction of complexity. This equilibrium occurs simply because, however small its probability, the number of possible ordering modes is so gigantic that some must necessarily "be the case".

*NB: The term equilibrium characterizes the modality that orders and not what is ordered nor the resulting order.*

The OK calls this case an **Individuation**.

The Shannon entropy of such an ordering mode is zero by definition.

An Individuation therefore merges all the complexity that constitutes it into a single digit of information E carried by a one-dimensional link.

The information carried is written: conditionnal probability of E "knowing"  $E=1$  ( $\Pr(E|E)=1$ ) and expresses a One and continuous necessity.

*NB: The term "one-dimensional link" should be considered in a purely logical sense of One to One relationship and not a geometric sense: We represent the logical relationship as a space-time line. Likewise the logical concept of "continuity" means that between the experience of E and the experience of E one can experience E but not that E would be endowed in itself with a continuous existence.*

The **reality is unfounded**, i.e. an Individuation is always "separable" into component individuations and can always "merge" with others into a compound individuation.

The reality being unfounded, the disjunction between Individuations would be unprovable.

Complexity therefore creates its own objects as possible statistical singularities.

The "substantial object" element of the initial model is therefore not necessary. It can be abandoned and replaced by Individuation, which is not a point substance but a possible one-dimensional statistical singularity. This possibility constitutes a form of partial existence.

The **(transcendental) subject** is an Individuation among the possible Individuations.

The transcendental subject is not a « being » but a singularity.

The information it carries is the **Existence** of the subject:  $\Pr(I|I)=1$ .

This information is not a thought of the subject but a fact of probability.

It is not the state of something but a relation between logical facts.

The transcendental subject does not designate what we call a spiritual or bodily envelope of the subject but a mode of order without topological limit and not subjected to time.

The Individuation I "separates" into component Individuations ( $\Pr(X|X)=1$ ). Since separation does not imply disjunction, there are infinities of infinities of "possible modes of separation" which will be called "**representations**".

These representations are constrained by the fact that they participate in the unity and continuity of the I and this infinitely, from separation to separation, from compound to components:

- The Individuations of the Xs composing a representation merge in the One Existence of the subject.

- The continuity of the I imposes a law of probability distribution on the possible modes of separation of any X "knowing" I.

This law of distribution is the **meaning** of X for I.

In the transcendental subject, the relation ( $\text{pr}(I|I)=1$ ) separates into a structure of probabilities over all possible X's "knowing" I: ( $\text{pr}(X|I)>0$ ).

This structure of probabilistic expectations animates meaning and representation in a continuous and irreversible way.

This structure of probabilistic expectations animates meaning and representation in a continuous and irreversible way.

The meaning of a representation is the law of probability on the representations it makes possible.

The representation is formally described as a **wave** of meaning.

This wave of meaning is the **knowing subject**.

X exists for the knowing subject if:  $\text{pr}(X|I)=1$

On a philosophical level:

The Ontology of Knowledge is in no way idealistic, it is rather a radicalized form of realism since the physical world and mind are of one and the same probabilistic nature.

The transcendental subject is not a present object there, determined by past causes; It is a probabilistic singularity without reference to a causal foundation, nor to time, nor to any dimension. To underline the link of the OdC to current science rather than its affiliation with Kantianism, it would have been possible and more accurate to speak of a singularity-subject rather than a transcendental-subject.

*Note: The concept of singularity-subject is compatible with the "objectivized" model proposed by General Relativity of a singularity-universe in a space-time continuum.*

However, the topology of a singularity is fundamentally different from that of an object: A singularity has neither a proper reality, nor substance, nor strictly defined boundaries.

The subject-singularity is only an infinitely diffuse and immeasurable part of reality.

Strictly speaking, the singularity-subject is neither a content nor a container, it is a probability attractor. As a model it is nothing other than the Unified consideration of the probabilistic interdependence which makes it possible and constitutes its reality.

In the singularity-subject the knowing-subject appears formally as a wave of meaning, that is to say a wave of probabilistic expectations.

- Meaning is not a data for thought but the very principle of thought.

- The meaning is not determined to change (in a prior time) by its own law, but the meaning and its change are induced by the necessity (out of time) of the Individuation of the subject.

- A representation of the existing implies possibilities according to a law of probabilistic expectations which globally preserves the unity, the coherence and the continuity of the knowing subject and his representations. This law of representation is **inductive**, **idoneous** by necessity.

- Some of the possible will come to exist and so on.

- For the subject, the Existing is certain, present (to the representation), necessary and non-contradictory ; the possible is probable, out of time, contingent and possibly contradictory.

- The principle of **causality** is stated:

*For the subject, what exists (in the present) separates into possibilities (out of time).*

- The notion of **concept** is stated:

*For the subject, what exists (in the present) is possible (out of time).*

- The statistical balance (out of time) between expansion and contraction of complexity, which characterizes the transcendental subject, takes on the meaning for the knowing subject of a parametric law which imposes itself on what exists in the world and time represented. Starting with space-time parameters.
- The Individuation of the transcendental subject is not disjoint from the Individuation of other subjects and all participate in other "Individuations" that could be designated by Humanity, Languages, Cultures etc... The OK is therefore in no way idealist or solipsist.

The reference text is :

[Introduction to the Ontology of Knowledge](https://philpapers.org/rec/BOUITK)

<https://philpapers.org/rec/BOUITK>