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STRUCTURES OF MIND

Foreword

At the first glance the reality of the outer world and of things existing out there appears obvious and simple. I see an apple out there in the garden. I perceive it as a spectrum of sense impressions, as a green spheroid, precisely situated within the garden. I touch it and find it there where I see it, spherical and compact. I recall its taste and if I bite into it, my mouth confirms it. I may examine its fabric with a microscope, I may cut it, mash it, make it to jam or to jelly.

One wonders why philosophers complicated during millennia this simple obviousness, pretending that what I perceive is not a real apple, but some sort of "ideal" appearance.

Not all, by the way. Several "realists" tried to snatch the apples from the garden and to sell them in various dressings and sauces.

Some, called "naive", gave up all dressing and presented apples in their naked simplicity, "just as we see them". A good example is the well known argument of G.E. Moore:

****Here is a hand, (Motions with hand). And here is another (Motions with other hand). Therefore, Idealism is false.****

Such thinking with hands is indeed very simple. But if we introduce the head, things get a bit more complex. Let's consider some basic types of events, starting with perception.

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PERCEPTION

Focusing on the apple I perceive it steady and fixed in its 3D sphericity and other sense impressions, but when I center on the garden behind, strange things happen. The compact spheroid splits into two flat disks hazy and transparent, letting the garden to be seen through with clarity. Is the apple still there, or it decayed into two blurred shadows?

When I focus on one of them, the other jumps to join it and there it is back again, the green, opaque, spherical apple, mysteriously knocked together from two blurred shadows. But

what happened to the garden when I focused on the apple?

All trees and bushes behind the green, opaque spheroid split into couples of blurred shadows, some closer-, some farther apart, muddled up in confused, undistinguishable mess. So, the garden, our world out there, would also consist of flat blurs, every now and then covering one another and making snapshots of opaque 3D objects, scrambling the rest to chaotic mess?

Making a mountain out of a molehill - one might say - Simple stereoscopy. Two slightly different views of the apple on each retina fuse in the brain to the 3D object. Agreed, but then the apple I perceive would be a construct of my brain, not the apple out there. Projection, representation of it, perhaps, but construct of my brain anyway. But even that view - though compatible with superficial ophthalmology - would not satisfy a neurologist, who would say:

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- All I see in brain and retinas are EM waves, which are deemed covariant, but certainly not identical with certain sense impressions. And we clearly experience sense impressions, not waves, so we necessarily need some sort of support of their covariance with waves, which we shall call "mind".-

So, finally, the sense impressions I experience and the apple they make up are constructs of my mind.

"Mind" defined as continuous background support of sensual events is a synonym of "awareness" as defined in "TIME, AWARENESS AND EVENTS", better fit for structuring and for the currently vital "Mind-Brain" Problem (see "MIND AND BRAIN").

I-A2-4 IMAGERY

Mind's faculty supporting perception will be called "Imagery" to keep it compatible with another essential function - Imagination. Elements of imagery will be called Images, of which percepts are a subclass.

"Image" is a strict synonym of "Event" as defined in "TIME, AWARENESS AND EVENTS". Due to common usages, it's easier to talk about events in the most general context of ontology and about images in the much more specific one, that of mind and its structures.

SENSORIUM

Images are brought about amongst others by sensations. We have seen that a tactile sensation induces fully fledged green, spheroid, compact image of apple. Sensations' output provides input of Imagery setting off perceptual images as maps of a hypothetical territory assumed as input of sensations, but unattainable and incognizable as such, which we shall call "Transcendancy".

On the other hand, I may chose to pick the apple and this event of volition will output into kinesthetic sensations, closing the perceptual-motor coupling.

Calling "Sensorium" the mind's faculty handling sensations, we may consider Imagery as a map of a hypothetical, unattainable, transcendental territory, projected by Sensorium.

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SYMBOLISM

We have seen in "TIME, AWARENESS AND EVENTS" that events function as clocks integrating the fundamental continuity of time/awareness into periods bounded by their ticks and conserving in between the continuous fabric. It holds of course for images, synonymous with events and due to the universality of the CD polarity we naturally seek a discrete counterpart of the intrinsic continuity of images.

We find it in Symbols.

Images may be mapped to symbols which act psychologically as mnemonic pointers and physically as fixed point attractors.

We shall call "Symbolism" the mind's faculty handling abstract symbols and consider it as the discrete complement of continuous images.

Images are seldom reduced to single percepts, like the apple of our example. Usually they represent compound patterns or "situations" in the sense Sartre gave this term, which are mapped to Symbolism as complex abstract structures e.g. linguistic, logical and mathematical expressions.

We have seen that sensations provide perceptual input to Imagery, which is intuited as "real". Concepts represent another input source of "conceptual" images.

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RECOLLECTION ET (RE)COGNITION

Images are memorized. Previously memorized ones may be recalled to Awareness. A newly perceived Image may be recognized as homomorphic with a recalled one, in which case it will be considered as known.

Recognition underlies Cognition: an Image is known when it's recognized.

REFLECTION AND MEANING

"Reflection" will denote the faculty of reciprocal transfers between Imagery and Symbolism, involving:

1. "Symbolizing" or Mapping Images into symbolic or abstract structures.
2. "Understanding", or regressing symbolic Structures to Images, which embody their "Meaning".

ABSTRACTIONS POSTULATE

In the light of above defined reflection and meaning we may specify the Abstractions Postulate (AP) which underlies science and epistemology since the Second Scientific Revolution of the Extended Relativity:

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Abstract, symbolic constructs may be justified solely by their capacity to coordinate events which represent their unique meaning and justification, where coordination of events implies considering them in their context, i.e. upon their background of continuum.

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TRANSCENDENCY AND IMMANENCY

Meaning by "reality" all what's experiential, it is entirely mental and immanent, encompassed by sensations and percepts of Imagery.

However, Sensorium acts as a mapper, mapping Imagery maps of some hypothetical territory which we shall call "Transcendency". As it's undeniable, that sensations map an ordered immanent reality of Imagery, temptation arises to regress it to its hypothetical territory posited as the "real world out there" homomorphic with the constructs and the order of Imagery. Yet, no matter how tenacious and persistent this temptation may be, the assumed transcendental reality of percepts is an illusory "transcendental reification".

(My) reality stays immanent and mental, that of (my) Sensations and Images.

We say with Einstein: -(transcendental) reality is merely an illusion, albeit a very persistent one.-

"Existence" being for us equivalent with "reality", all above applies to it as well and, unless it's clear from the context we shall similarly qualify it as "transcendental" or "immanent".

It's undeniable, that sensations, though stemming arbitrarily from incognizable transcendency, trigger ordered immanent reality of images and, that, on the other hand, mind's faculty of cognition guides us through their labyrinth allowing to survive, to reproduce and to avoid oncoming buses.

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To quote Einstein:

... this fact is one which leaves us in awe, but which we shall never understand. One may say "the eternal mystery of the world is its comprehensibility."

As our essay endeavors to define the ontology emerging from the Second Scientific Revolution of Einstein's Relativity, it seems interesting to note that our structure of mind is a refinement and a generalization of Einstein's view presented in his "PHYSICS AND REALITY" of 1936 and that both views agree entirely in two essential points:

1.The apparent "reality" is immanent and mental.

2.Abstract concepts guide us through the labyrinth of apparently "real" percepts. Differences concern details: Einstein's view looks at the first glance as ours, reduced to Sensorium and Symbolism and lacking Imagery.

However, Einstein says:

I believe that the first step in the setting of a "real external world" is the formation of the concept of bodily objects (bodily objects constructed by mind from the sensory output).

We believe that our structure refines "PHYSICS AND REALITY" by specifying explicitly three defined above faculties of mind which the latter only implies:

1.Imagery handling these "bodily objects" and presenting them to the awareness as images or patterns of sense impressions.

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2.Symbolism, handling abstract concepts and structures associated with images of "bodily objects".

3.Reflection, the faculty of reciprocal transfers between Imagery and Symbolism, supporting meaning and understanding.

We also believe that our Imagery generalized Einstein's view, confined to physics, extending it over the imaginary "world" of psyche, art, ethics and logic.