4. SUBJECTIVITY, THE MIND, AND CONSCIOUSNESS

Life on Earth depends on the Sun. Just a tiny portion of its energy, reaching the portion of space wherein the Earth is placed, is enough to support all the life that exists on the planet. What we see throughout the day is thanks to the presence of the Sun. And yet, we are hardly ever aware of that presence through which we perceive other objects and persons. We fail to see it because it is too evident, too luminous. In the same way, all that we perceive, think and feel is possible due to the presence of consciousness, which, like the Sun, illuminates all. It is consciousness that illuminates the objects we perceive by our senses, that makes it possible to know that we have emotions, that gives life to our thoughts which, without it, would be no more than blind movements. Without its constant presence nothing would exist for us.

The scientist who studies the outer world does so by virtue of his consciousness; the latter ought therefore to be the fundamental element of every theory of the universe.

> After all, even the most "objective" scientific explanations exist in the end only "in the eye of the beholder". If consciousness would not be there to support them, not only beauty, love, experience, and truth would lose their meaning, but even scientific theories would dissolve into unobserved paper, ink, and fleeting plops of brain-chemistry.

David Chalmers has divided the "problem" of consciousness into two parts: the "easy" and the "hard". The "easy" problems are: to scientifically understand the mechanisms of perception, attention, assimilation of information; the capacity to categorize and discriminate, behaviour control, and memory; the difference between the dream state and the waking state, etc. Although this problem is far from being truly easy, and although today an explanation of these processes is still very far from our grasp, great advances in this field would not bring us any closer to resolving the "hard" problem: why and "how physical processes in the brain give rise to subjective experience". Why are we able to perceive the *qualia*, or qualities of objects? Qualities are not in any way physical; how could exclusively physical processes have produced them?

> Whitall N. Perry:
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> The credibility of the evolutionist hypothesis on the origin and development of life does indeed suffer from a missing link, but it is in the domain of cosmology, and not paleontology, that the crux of the matter resides. The link missing is *de facto* the pole 'subject', apart from which the pole 'object' is inconceivable. [...] For precisely what the evolutionists are telling us in so many words is that inanimate matter as *object* can 'enjoy' indefinitely, and hence presumably perpetually if it so 'wishes', perfect autonomy with no corollary reference whatsoever to a *subject*, namely, a 'cognizing agent' either principial or manifested. Yet whoso says *known* says *knower*: a galaxy 'out there' is known to be so uniquely by the observation and testimony of a knower 'in here'. Even the 'unknown' is the knower's concept.

Between the outer objective world made of matter and the inmaterial world made of thoughts, sensations and emotions there appears to be an almost unbreachable abyss, yet this abyss is even greater between the observer and the observed (which includes the contents of consciousness).

> The ontological gap between a thought and a neuron is less than that between the observer and the observed; there is nothing to be compared to the 'I', while thoughts and neurons are linked by their being objects of observation, contents of 'I', sharing some characteristics such as time and locality.

Peter Russell:

> Yet whatever idea is put forward, one thorny question remains unanswered: How can something as immaterial as consciousness ever arise from something as unconscious as matter? […] How had hydrogen, the simplest of elements, evolved into creatures such as ourselves, able to reflect upon the immensity of the cosmos, understand its functioning, and even study the mathematics of hydrogen? How had a transparent, odorless gas become a system that could be aware of itself? In short, how had the universe become conscious?

According to David Chalmers:

> Our grounds for belief in consciousness derive solely from our own experience of it. Even if we knew every last detail about the physics of the Universe [...] *that* information would not lead us to postulate the reality of conscious experience.

Already in the 18th century David Hume had negated the existence of an "I" within us:

> For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other. [...] I never can catch *myself* at any time without a perception, and never can observe anything but the perception.

It is worth asking who or what it is that enters into itself, that cannot grasp itself, and can observe nothing but perception. Yet various scientists, among them Steve Pinker, still follow in his footsteps. For Richard Dawkins, the sense of the "I" has been produced through blind evolution; in reality it is nothing other than

> an illusion that has come about because Darwinian selection found it expedient to create that illusion of unitariness rather than let us be a kind of society of mind.

Although the mind could be compared to a computer, who or what "sees" what occurs? Who inspects the mental operations or the results obtained by the computer? Only the human being who has created computers is capable of recognizing, interpreting, and understanding the answers given by a computer. Without some keys to interpret information—a previously established code—and without a consciousness that observes it, the information given by a computer is nothing but a string of meaningless data, nothing more than electrical impulses (which already need a "mind" to assimilate to 0 and 1). Information does not imply consciousness.

A light bulb goes on when electricity passes through a cable, and goes off when it stops. If the light bulb were painted red, the light that is produced would be red; if it breaks, the light stops. Could we explain light or electricity through meticulously studying the light bulb or the cable? When move the knobs on a television set, the images on the screen become distorted, and if we damage it the images disappear. Can we gain an understanding of television programs and stations through a detailed study of the TV and its internal components? Without a modem for a computer, we have no access to internet. Could the analysis of the computer and the modem reveal to us the workings of internet and how it is structured? Through a meticulous scientific study of the composite parts of the equipment and how they influence what we can see, can we conclude that the programs come from our television and the internet from our computer?

David Bohm uses the analogy of a radio antenna as an image to aid in understanding that the subtle, the "form", is prior to and independent of matter, and is used to generate the latter:

> You have a radio wave, sent out from a radio station, that has form (e.g. music), and this form is carried by a very weak electrical wave that is picked up by the antennae of a particular radio set. When the music comes out of the radio set, almost all of its energy comes from the power plug in the wall socket, but its *form* comes from the very weak electrical wave picked up by the antennae. So here we have a very subtle energy (picked up by the antennae) molding a denser energy (coming from the wall socket).

For Radin, "At a minimum, genuine psi suggests that what science presently knows about the nature of the universe is seriously incomplete." Nevertheless, "no amount of evidence alone is going to be enough. The implications for the current scientific paradigm are just too great."

B. Alan Wallace: "To discuss the mind/brain problem today without taking into account the implications of quantum theory is like discussing the movements of the planets without taking into account the Copernican Revolution".

Max Planck once remarked: "Consciousness I regard as fundamental. I regard matter as derivative from consciousness. Everything we talk about, every thing we regard as existing postulates consciousness."

For Arthur Eddington, "the stuff of the world is mind-stuff." Bernard d'Espagnat summarizes thus:

> The doctrine that the world is made up of objects whose existence is independent of human consciousness turns out to be in conflict with quantum mechanics and with facts established by experiment.

And Henry Stapp:

> Everything we [now] know about Nature is in accord with the idea that the fundamental process of Nature lies outside space-time, but generates events that can be located in space-time.

According to David Peat: “Consciousness [...] can be considered to arise out of a deeper ground that is common to both matter and mind.” For Henry Stapp, the inclusion of human consciousness in the physics theories is among the most decisive advances of quantum physics. And for John von Neumann: “The world is built not out of bits of matter, but out of bits of knowledge—subjective, conscious knowings.” And more clearly: “Consciousness creates reality”.

And the Dalai Lama says: “According to the Buddhist explanation, the ultimate creative principle is consciousness.”