The Smith of the Gods

12 - «What we cannot speak about, we must pass over in silence; but what we cannot conceive, must it be forgotten?»

120- Around the year 1920, in a media space turned towards the ferment of the discoveries in quantum physics, a particular philosopher appears: “Ludwig Wittgenstein”. A philosopher of language who interrogated the nature of the exact meaning of what one says. His redefinition of language comes at just the right moment with the reinterpretation of the purely Laplacian physics. “What can we say, and how must we say it?” A necessary clarification for approaching a new understanding of the quantum world, apparently contradictory: simultaneously discrete and continuous, determined and undetermined. Wittgenstein, barycentre of the Vienna school, introduces formal logic into philosophical language, publishing in 1921 the “Tractatus Logico-Philosophicus”, hoping for a logical and solid basis of thought. In a neopositivist approach, clarifying philosophical language through the development of propositional logic, just as Albert Einstein had wanted with his hidden variable, in order to keep a deterministic basis for physics. The son of a master blacksmith, passionate about Art and Aesthetics, he came from a great Viennese family of artists. His character led him to notice the kinship between art and philosophy. A reader of Goethe, of whose “Theory of Colours” he was particularly appreciative, he finds himself in opposition with Hegel on the questions of Aesthetics. The “Idealism” of Hegel contains a form of relativism which cannot suit him, starting from the fact that the “Aristotelian Syllogistic” which Hegel claims for itself compares propositions of a different nature, and sometimes incompatible ones. In his mind, he imagined a philosophy rid of its incoherences, unfolding itself into magnificent “Aphorisms” like fragments of a Heraclitean essence. “Philosophy, really, should be written only as poetry”, he used to say. Father of Anglo-Saxon analytical philosophy. In 1924, with Bertrand Russell, he lays down the principle of the ontology of atomic facts as a composition of simple objects constituting logical atomism; the logical propositions adopting the same rules.

121- It is not only a discursive logical necessity which unfolds entirely around propositions; logic, according to him, possesses a reality more true and more real than the real world itself, and reflects the immutable essence of the world. He comes, at the end of the “Tractatus Logico-Philosophicus”, to declare: “What we cannot speak about, we must pass over in silence.” His conclusion is not meant to restrict the sphere of language, but to distinguish the limits of logical language from the other “language games”: linguistic spheres such as that of beliefs, the trivial language of the everyday, the professional sphere and others besides, answering to different rules and mechanisms. His about-turn in 1930 against the “Tractatus”, observing that certain propositional constructions were not decomposable into atomic facts, sounded the knell of that doctrine. He subsequently came to the “Philosophical Investigations”, which allowed him to observe that, in the final account, a proposition must be considered as the support of an image which we apply to reality in order to interrogate it, while taking the form of a detached reality aiming at the symbol thus figured.

122- We are in 1927, and the world of science was unknowingly beginning its fundamental metamorphosis, in the same measure as the Copernican revolution had been fundamental. The science which had wanted itself objective since the foundations laid by the great sage Thales was from now on confronted with complexity. A paradigm of complexity theorised by Gaston Bachelard in 1934, which translates well what the conquest of matter has been. Thus, at the same time as Schrödinger, Einstein and de Broglie were opposing the vision of Bohr, Pauli, Heisenberg and Born on the nature of the new quantum reality, there was the fact of the epistemological impossibility of reconciling the multiple aspects of the intimate image of matter which the new quantum science was beginning to reveal. Science obtained a wave state of matter with a device modelling the space-time substrate of the operative process; corpuscular when the device brought out the causal chain of the movement; and transitory when the experiment took into account the evolution of the "canonical variables" (space-time couples of every point of the system). Moreover, there was the introduction of a "structural uncertainty" brought to light by Heisenberg, due to the interference of the observation probes in their experiments, whatever their nature, confronted with the action of special relativity on the scene, destroying the precision of the results. One must add to this the impossibility of obtaining a solid and complete formal representation of these experiments, brought to light by Gödel's incompleteness theorem, which predicts an undecidable statement in every rich logical and formal system.

123- The height of fatality: our articulated language does not answer to logical processes but finds itself driven by beliefs and desires. Thus, from the dependence of the image of the world obtained according to the operative methods envisaged, is born the notion of the "Complexus", a connection between heterogeneous processes: the science of systems, the science of information, computation processes, plus the science of modelling, cognition processes leading, with Norbert Wiener in 1948, to the notion of cybernetics. This movement intensifies and produces the new sciences of the future, such as the science of systems, initiated later by Heinz von Foerster, called systemic or second-order cybernetics. He was also a great contributor to the mathematical and psychological constructivist movement. Psychological and philosophical constructivism is a branch of the sciences which rests on the idea that our image of reality, or the structuring notions of that image, are the product of the human mind in interaction with that reality, implying the notions of psychometry, and not the exact reflection of reality itself. And this is also the case for any animal species whatever, in its biotope.