REALITY AND ITS MODES OF KNOWLEDGE

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Abstract:
The text briefly outlines the principal types of knowledge concerning reality, highlighting their genealogical and functional interrelations.

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"*We, naturalists, do not imagine*
the subject of our inquiries;
we simply ascertain it."
(E. Racoviță)

1. Reality exists

Reality exists independently of the entities it contains, of individuals' minds and of all their products and subproducts (mental, ideological, spiritual, cultural, moral), whose existence and functioning it partially determines. It is manifold and diversified, coherent and unified, complex in its genesis, structuring, functional exercise, development and evolution; and the relations within it, together with the effects thus produced, augment its complexity. Reality may be known as a result of the interactive processes between human beings and their environment.

2. Knowledge

Since the human being is a component of the environment, it can exist and function only by responding to environmental demands (in conjunction with the requirements of its internal needs and tendencies). Through the attributes of perception, representation and expression, humankind has extended its adaptation to the environment, thereby integrating the functions

of sensory-affective, rational and communicative structures, and generating the biological epiphenomenon of knowledge that serves survival. Consequently, the organs and processes that procure knowledge have evolved as instruments for understanding the real world, while the cognitive and linguistic categories thus generated have developed and evolved in correspondence with the environment and as a result of accommodation to it. In consequence, human adaptations are biologically determined by the imperative tendency to seek and possess truth – a tendency arising from the organism's correct orientation toward the reality of its environment, thus enabling the transition from potentiality to actuality in the possibility of survival.

3. Segmentation and Delineation of Reality

Even so, the senses, cognitive aptitudes and linguistic communicative capacities exhibit severe limitations regarding sensory amplitude and depth, information-processing and storage capabilities and the structural-functional accuracy of expressive instruments. Therefore, for humankind, reality is only partially knowable and expressible, and that in varying degrees, yet solely as a result of mental and subsequently linguistic segmentations and delineations that modulate the manner in which it is understood. In this way, the various sciences (physics, chemistry, biology), their branches (mechanics, optics or neurology, cardiology etc.), then the domains of knowledge (sociology, psychology, philosophy) and the methods and instruments of knowing (logic, mathematics) are defined. This means that reality has been segmented not because it was constituted, exists and produces its effects in such a way, but because the being that strives to know it possesses no other means of encompassing, investigating and understanding it.

4. Paths of Knowledge

After the sensory perception of reality and the processing of signals by neural networks, perceptions and then representations are necessarily mirrored faithfully. Sequentially and constantly requiring stimuli, energy, maintenance and verification, and being a component of the selection mechanism, the process is neither always successful nor ever guaranteed. Thus arisen and exercised, the activity of knowing develops and arranges itself in relations of adequacy to reality. Since the organism possesses the potential to perceive and process reality through multiple paths – incongruent in scope and depth, strongly marked by their nature –, the human being has

developed and practised several modalities of knowing throughout their existence. Because the purpose of these variants was to serve survival, they interrelated in a collaborative-competitive manner, so that they have come to coexist in positions both of dominance and exclusion, yet always with a measure of complementarity.

Sensory and intuitive knowledge arise from the processing of information supplied by the senses during ongoing activities, and subsequently by recalling memories of past experiences. This type of knowledge, therefore, belongs to the primary equipment of organisms, manifests spontaneously and instinctively and its results impose themselves under the imperative of the act itself.

The evolution of the senses and then of the brain's processing capacities has likewise permitted the emergence of confusion, uncertainty and insecurity, which led to the decoupling of instinctual behaviour from cognitive behaviour. In this way, the multitude of mentally conceived possibilities could be somewhat regulated through sociality and magic, which allow for the modulated expression and simulation of reality – modalities of ritualisation governed by emotional-affective behaviour.

Magico-mystical and artistic knowledge graft themselves upon and grow from intuitive knowledge. In the first paradigm, intuitions generate mental constructions that produce convictions expressed through myths, later reinforced by judgements with the appearance of reasoning, and ultimately dogmatised. In the parallel paradigm, representation and expression guided by the senses generate a delicate canvas of superimposed and interwoven conjectures. Governed largely by subjectivity and mediated by perceptible and intelligible conceptual patterns, the imaginative constructs produced by religion and art are built upon experience (both personal and socially mediated), and the categories of information they bear direct behaviour, connecting it with motivational systems and their roots (feelings, ideas, values). In this context, stakes constitute an essential feature of mystical and artistic knowledge. Given their relation to ideological stakes and their incapacity to offer rationally valid explanations – as they are not concerned with correspondence to reality – beliefs and doctrines impede recourse to the criterion of validity (to the concept of 'truth'). Eschewing empirical evidence and urging the construction of sensory-mental constructs, possibly the building of arguments of authority, they ultimately come to establish sets of dogmas.

Possessing the capacity to organise experience by imparting meaning in subjective forms, religion and art continue to hold crucial roles in formulating, managing and sharing representations of 26nterna land social emotional, affective and ideational life; they thus constitute necessities for the development of the individual and of the social self. It becomes evident, therefore, that this second type of knowledge is self-representational and, in essence, refers to itself.

Scientific knowledge emerges as the complex effect of developmental processes undergone by the human being and differs profoundly from the preceding forms. Although it remains of biological essence and, at its point of origin, likewise rests upon the senses, it detaches itself from its material provider, subjecting it to meticulous and methodical formal and substantive verifications grounded in 26nterna land26 rational bases. In relation to observed reality, its primary products (hypotheses) are tested and then employed as building material for other products (theories and explanations), all subjected to verification at every step. Thus, observation and the initial conclusion thus generated are followed by analysis, reflection and experiment (all reproducible), and as a result of their collaborative yet competitive interplay, knowledge accumulates and gradually develops, constituting an integrated and increasingly complex network of data. The system thus self-structured is constantly subjected both to the natural requirements of internal coherence and unity and to the imperative demands of conformity with expressed reality. Constantly referred to objective reality, the exercise leads to the elimination of sensory-intuitive, emotional-affective and intellective-rational impurities. Rational and reasoned decisions regarding anything (object, method, instrument) are subjected to revision, without implying that final and absolute knowledge has been attained, but rather that the sequence of improving reasonings and their results, and then selecting the latter, is ongoing and generates outcomes conducive to progress – in the development of knowledge, of its methods and of its instruments. As a historical process through which both the world and the researcher become clarified and edified, scientific knowledge is provisional and partial, always perfectible. Populated by uncertainties, it is more capable of indicating *what something is not* than of decisively asserting *what something is*.

Moreover – as Darwin observes – scientific knowledge is unconcerned with hopes and fears, but solely with the discovery of truth, insofar as human capacities permit. Consequently, it is devoid of ideological

stakes of any kind, since it acknowledges that objective reality is as it is regardless of any human consideration or calculation, whether religious, philosophical, artistic, economic or otherwise.

All this reveals that science is a historical-evolutionary process of continuous acquisition, accumulation, verification, hierarchisation and selection of data and products, in pursuit of certainties. Occurring through the constant interplay of observation, experiment and reasoning, scientific knowledge persistently seeks data with the smallest possible degree of contamination – by: a) senses, thought and language; b) methods and instruments; c) other modalities of knowledge –, systematically subjects its products to 27nterna land external verifications (through experiments and rational methods), and develops continuously in increasingly complex modalities (monitored by improved methods and instruments), being capable of evolving at the level of all its components. All unfolds as a consequence of successive transgenerational-processual corrections, mediated by methods and instruments which themselves are subjected to all the processes to which knowledge itself is subjected. The entire system of control (from thought) and validation (from reality) aims at obtaining knowledge that faithfully reflects the state of reality.

It is thus understood that this third path of knowledge possesses the highest possible degree of cognitive potential, being not merely a provider of knowledge but also a procedure that legitimises itself insofar as it confirms the validity of reason constantly subjected to the test of truth. Scientific knowledge does not impose itself and does not speak of itself. If authentic, it can only seek conformity with reality and present its conclusions.

5. Conclusion

Although they may refer only to state, moment and sequence, the results obtained through any single path can prove useful. Full understanding, however, arises only as a consequence of a thorough knowledge of the premises, origin, constitution, emergence, exercise, functioning, development and evolution of that entity. Matters stand thus simply because entities are the products of premises: they have an origin, they have been constituted, have emerged, have been exercised and function, have developed and, eventually, evolve. And all these induce various determinations that cannot be ignored without consequences for the quality of knowledge results. Furthermore, given the unitary character of reality, an authentic knowledge of it tends towards the pursuit and comprehension of the entire becoming of reality.

Since reality does not merely exist but becomes, and since the purpose of science is to procure knowledge precisely of reality, genuine scientific inquiry should constantly observe reality, perpetually accommodate itself to it and allow itself to be guided in the wake of reality's evolutionary processes, in which evolution itself evolves.

Modes of understanding and judgement that do not derive from the conjunction of what is empirical with what is reasoned belong to the realms of Religion and Arts, where they operate freely and assume the role of supreme guides. Authentic knowledge, however, does not arise from an imaginative and seemingly creative act, but from one that is comprehensive and replicative of reality. Moreover, even if a sequential grasp might be operational, if it does not start from the beginnings and act cohesively, through selective inclusions, if it does not traverse reality together with the entire context upon which it depends, then, however fruitful, pleasing and beneficial it may appear, it remains deficient and bears a high potential for generating error.

Sensory, ideological and aesthetic stimuli may provoke feelings, intuitions and experiences that seem refined and elevating. Likewise, imaginative products – whether ideological, artistic or scientific (when they seek not conformity with reality but only crystalline coherence with themselves) – occupy the supreme rung of human ecstasy. Naturally, for the being that considers itself created through a special and separate effort of the Creator, it may be discomforting and deprive one of satisfactions to discover and admit that the fascinating, synesthetic and uplifting minuet of sensations, states of consciousness and aesthetics is nothing more than the apparent effect of electrochemical reactions occurring in neural structures, as a result of the biochemical processing of physical information received from receptors upon which the determined play of the entire theatre has acted. However it may seem and however it may be preferred, matters stand thus and not otherwise.

In truth, serving survival, knowledge serves the edification and evolution of the human being – and herein may lie its sacredness and splendour.

(Translated from Romanian by Oana Voichici)