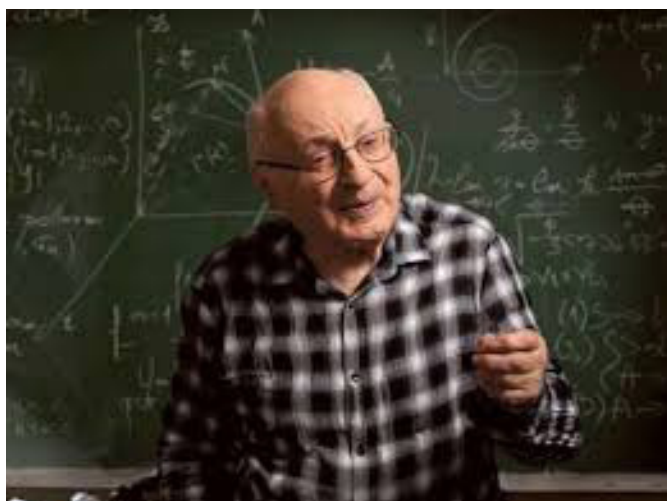


THE HERMENEUTICS OF AN ENCYCLOPAEDIC PARADIGM: IN MEMORIAM ACADEMICIAN SOLOMON MARCUS



On March 17, 2016 acad. Solomon Marcus (born on March 1, 1925, in Bacău), world-wide reputed Romanian mathematician, full member of the Romanian Academy (since 2001), passed away. His books - around 60 volumes, apart from the 26 co-authored works -, as well as his over 500 studies issued in prestigious scientific journals, have been translated into 20 foreign languages. His scientific work has been cited by more than 1,000 authors. The main domains of his preoccupations were mathematical analysis and application of mathematics in computational linguistics, theatrical analysis, natural and social sciences. He published several books and studies devoted to various topics, from semiotics and philosophy, history of science and education, culture and art, up to linguistics and poetics, combining in Pascal's polarity - as he himself used to say - "the spirit of geometry, the spirit of subtlety". In this respect, prof. Vasile Burlui, President of "Apollonia" University of Iași, in his *Laudatio*, presented on a solemn occasion, when the celebrated mathematician was awarded the distinction of *Doctor Honoris Causa*, offered a highly suggestive definition of such a personality: "one may rather say that he escapes any classification ... His look, constantly fresh, devoid of any preconceived ideas or common places, discloses to us a secret: science is a fascinating

universe". The model of living he created, that of an interrogative life, which gives meaning and depth to the human being and to human life, in general, was also outlined.

Open-mindedly concerned with the challenges of all classical disciplines and, equally, of the most recent ones, continuously structuring the specific realities of his investigation domains, acad. Solomon Marcus transformed his project into an encyclopaedic work. Application of the mathematical, logico-philosophical, semiotic-linguistic thinking has finally turned into a systemic and comprehensive manner of thinking, capable of including the universal paradigmatic potential of most various disciplines into universal patterns of knowledge. Such a concept - discussed exhaustively in his fundamental synthesis work, "Universal Paradigms" (issued in 2011 at "Paralela 45" Publishing House of Pitești, a volume bringing together five of his previously published books) - represents an authentic hermeneutics of knowledge, the mark of a subtle, refined and original declarative consciousness. In the Preface to this *opera magnum*, the author will explain the methodology he applied: "The segmentation of knowledge here operated, according to the criterion of universal paradigms, is proposed not for substituting it in various disciplines, as we usually do, but for enriching the latter, for coming closer to the understanding of the world-knowledge unit, for discovering the common denominator of certain facts and phenomena which, otherwise, might appear as overwhelmed by their specificity and, consequently, almost impossible to be grasped. At first sight, the world is complicated, however it is guided by a hidden order, which challenges us to discover it - this is actually *the great game*, to which both art and science are dedicated. We are the witnesses of a show of ideas which reveals to us aspects hidden by single-disciplinary, fragmented knowledge. The reader is invited to contemplate it, in its integral complexity and beauty" (p. 5). Solomon Marcus was a fervent

supporter of the intellectual Republic imagined by Erasmus of Rotterdam, always open to new challenges, and a constant promoter of such idea in the today context of globalization and integration of all types: economic, financial, political, linguistic, informational, cultural.

Starting from the same conceptual platform, the philosopher and sociologist Edgar Morin puts forward the idea that the universe is a very long narrative, in which we act as belated protagonists, on mentioning the presence, within each society and each individual, of a rationalistic-empirical-technical thinking, along with a symbolical-analogic-magic thinking (Morin, Edgar, *La méthode. 5. L'humanité de l'humanité. L'identité humaine*, Paris, Seuil, 2001, p. 65). Observing the decomposition of the human being as isolated fragments analyzed by various disciplines, Edgar Morin pleads for going beyond the considerable difficulty of grasping the unit in a multiple, and the multiplicity of an unit (*ibidem*, p.10). In this respect, I remember a brilliant conference held by academician Solomon Marcus about the show of figures, played mostly between 1 and 0, and suggestively interpreted by professor Vasile Burlui in his superbe poem *Unu (One)*, dedicated to acad. S. Marcus:

Din goluri Universuri reduce iar la Unu
Se reclădesc în Cosmos ca de la început
Ca și într-un miracol, când totul este într-unu
Se recompun galactic cum Numărul a vrut.

On reading the volume "Universal Paradigms" several times and on consulting different other texts, I could observe that the theorems of knowledge act at different levels, of mental/affective/sensitive type, reminding of the equation of Bergson, which brings together the psychological Ego, the social Ego, the metaphysical Ego, up to the most profound Ego. The element bringing together and unifying this paradigm is the position of creative subjectivity, the insertion of one's personality traits, through which the multiple and dynamic author launched a hermeneutic search upon *summum enciclopedicum*. The effect attained refers to the exploration of some new domains and perspectives in different disciplines, alongwith their intersection by means of an enriched

epistemological, transdisciplinary and interdisciplinary approach. Follower of an integrative vision, acad. Solomon Marcus projected his dreams of mathematician upon wholly different – as to their interests – fields, and viceversa, asserting that "by their interaction with socio-humanistic disciplines, mathematics and computers acquire a cultural value for quite a large public segment". (p.93) "Is mathematics exclusively of conceptual type?", the distinguished academician asks himself, after which he states that mathematical logic is an universal key for knowledge, invoking in this respect "the algebric pattern of grammatical category", "narrativity and dramatism, the theatrical character of the mathematical language" while also offering the answer – following the spirit of a Bahtinian-type of dialogue – by developing the "polyphony of the mathematical text" concept: "a mathematical text assures collaboration of a vast variety of codes, if considering the multiplicity of its components and functions, some of them focusing on sequentiality, others on its transgression; some of them metaphorical, others metonymic; some continuous; others discrete; some of them visual; others sonorous"; "in the case of the mathematical language, the cinematographic idea of Eisenstein about the vertical montage has been taken over". In this context, the works of acad. Solomon Marcus demonstrated that mathematics develops a permanent metabolism with multiple other systems, whereas the mathematical structures and the algorithm lay the foundations of creation, by modelling it: "mathematics reflects the architecture of our minds and displays the same elegance and subtlety". In this respect, acad. S. Marcus continued the tradition of the ancient Greeks, who viewed mathematics as a discipline of the spirit. Accordingly, the far-reaching intellectual project of Solomon Marcus, similarly with that of Edgar Morin (*ibidem*, p. 11, 12), is conceived as a reflexive integration of most different domains of knowledge, not for their simple bringing together, but for their combining, joining and interpreting. The intention is not of restricting human knowledge, for example, exclusively to sciences, while considering literature, poetry and arts not as mere means of poetic expression, but also as instruments of knowledge.

His apparently Utopian project of *mathematical poetics* (an oximoronic syntagm, indeed), provoked a "scandal" more noisy than the previous one, burst out when he published *Mathematical linguistics*. To understand such an uncommon pattern of analysis, we have to resort, as Solomon Marcus himself did, to the poetry of Nichita Stănescu: "one should return to his *Necuvintele* (*No(n)-words*), issued in 1969, and to the volume of poems *Respirări* (*Breathings*), published in 1982. Poetry and mathematics have in common the contrast between the clothing with which they enter the world and their hidden life."

Actually, the relation acad. Solomon Marcus has always had with the Romanian language was special, indeed. His personal relation with the language began as early as his adolescence, when he came to understand the deepness of Mihai Eminescu's poetic world: "It was as if I had discovered a different Romanian language. From that moment on, I called Eminescu co-author to the Romanian language."

Analyzing, in several writings and in numerous interviews, his personal evolution in time, the scientist outlined that, since his early adolescence, he was attracted by poetry, theater and philosophy: "What shall one find when looking farther and farther?", the future mathematician used to ask himself, since childhood. "As a matter of fact, in my student years, I suddenly realized that I used to look at mathematics with the eyes of a literature and theater lover and also that, later on, I approached linguistics from the angle of mathematics. All marvellous moments offered to me by poetry are also to be found in mathematics. I never performed as an actor on the stage, however I was influenced by the relation between mathematics and theater. I have even created the Romanian school of mathematical theater science", concludes Solomon Marcus in an interview, thus synthesizing the analogical relation operating between these domains: "But which is, after all, the connection between theater and mathematics? Think on this, the word characteristic to mathematics is *theorem*. Well, the etymology of this word comes from Greek, meaning *performance*. Consequently, for the ancient Greeks, the theorem appeared as a form of show. The definition of the word *show* is

alarmingly simple: everything that can draw and keep the attention of an audience. *The show* is the common characteristic of any profession..." (see adev.ro/nva7h5).

Considering Moldova as a space with special affective resonance in his evolution, the celebrated academician accepted, in 2013, the invitation of the "Mihai Eminescu" Romanian Cultural Institute (the Chişinău Branch), which organized, together with the Institute of Philology of the Academy of Sciences of Moldova and with the Institute of Philological and Intercultural Researches of ULIM, a public conference, as part of the manifestations organized on the occasion of the "*Limba noastră cea română*" National Day. In his lecture, entitled *The Romanian language between hell and paradise*, the scientist convinced his audience about the importance of the Romanian language in all its social, professional and international projections, making evident the irrefutable trumps of the Romanian language in relation with the European integration (viewed as a paradisiacal condition), as well as of its awful inadvertencies - namely, its deviations from the linguistic norm, the more and more frequently employed argotic, family, deviating and pragmatically narrow forms. The optimistic conclusions he drew were related to a more pertinent promotion of the Romanian language along its cultural, scientific and spiritual aspects, for facing successfully the competition with the European languages of the great cultures.

Acad. Solomon Marcus was curious and interested not only in all sciences - whose evolution he keenly followed -, he was also a curious and permanent observer of the realities surrounding us. Contemporary with the epoch in which - as he himself confessed - "people used to live surrounded by major uncertainties, a time when the future was limited strictly to the following day ...", he remembers facts and events collected from the rich *Fragmentarium* of his life, which he comments upon and skilfully transforms, with Socratic wisdom, into meaningful effects.

Surveying, last year, the 90 years of his life for which he was celebrated, Solomon Marcus recited by heart a poem of Tudor Arghezi, which impressed him since early youth. Cited in the

following are the verses which, today, can be interpreted at even deeper levels of understanding and dramatism:

Dragii mei, o să mă joc odată
Cu voi, de-a ceva ciudat.
Nu știu când o să fie asta, tată,
Dar, hotărât, o să ne jucăm odată,
Odată, poate, după scăpătat.
E un joc viclean de bătrâni
Cu copii, ca voi, cu fetițe ca tine,
Joc de slugi și joc de stăpâni,
Joc de păsări, de flori, de câni,
Și fiecare îl joacă bine.
Ne vom iubi, negreșit, mereu
Strânși bucuroși la masă,
Subt coviltirele lui Dumnezeu.
Într-o zi piciorul va rămâne greu,
Mâna stângace, ochiul sleit, limba scămoasă.
Jocul începe încet, ca un vânt,
Eu o să râd și o să tac,

O să mă culc la pământ.
O să stau fără cuvânt,
De pildă, lângă copac.

[Tudor Arghezi, *De-a v-ați ascuns...*].

Even if he experienced, several times, the effects of and wrote about "the loneliness of the mathematician" and also about "the loneliness of the academic world", advancing in upward direction between the limits and the infinity of the human spirit, today academician Solomon Marcus brings us all together in his (un) accepted solitude with which he resisted time, until becoming part of time.

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