STÉPHANE LUPASCO AS AN ILLUSTRIOUS NEO-RATIONALIST

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Stéphane Lupasco's three logics are three *ONTO-LOGICS*, or, more precisely, *THREE HORIZONS OF AN ALL-INCLUSIVE ONTOLOGY* in which the ancient Aristotelian-mediaeval categories of *ACT* and *POTENCY* are closely connected with the irrepressible evolution of the Hegelian discourse of *BECOMING*, to lead us to an original *METHODOLOGY OF THE FRACTALS OF ENERGY* and help us accept, as naturally as possible, in the closest context, a principle like that of Einstein's relativity, which seemed to be suspended in the realms of mega-cosmos. *ACTUALIZATION* (or *achievement*), *POTENTIALIZATION* (or *virtualization*) and *STATE EQUIDISTANT TO THE TWO EXTREMES*; *HOMOGENIZATION* (or *identification*), *HETEROGENIZATION* (or *diversification*), and *STATE EQUIDISTANT TO THE EXTREMES*; *OBJECTIFICATION*, respectively *SUBJECTIFICATION* and *STATE EQUIDISTANT TO THE TWO EXTREMES* – these are the elements in the "*stylistic matrix*" of a philosophy reminding us, in ample coordinates and in an equally "*personal*" interpretation, of both Wilhelm Ostwald's *ENERGETISM* and Alfred North Whitehead's *ORGANICISM*.

Stéphane Lupasco's thinking, to be seen in the sixteen volumes published during his lifetime, was said to revive "the tradition of a philosophy which is in harmony with the sciences". 1

As for the kind of this philosophical tradition, the (sub-)titles of only a few of his books describe it conveniently: Essai d'une nouvelle THÉORIE DE LA CONNAISSANCE (Paris, 1935); De la nécessité et des directives d'une nouvelle LOGIQUE et des mathématiques qu'elle commande. Esquisse d'un nouveau DISCOURS DE LA MÉTHODE (Bucureşti, 1940; Paris, 1941); LOGIQUE et contradiction (Paris, 1947); Le principe de l'antagonisme et la LOGIQUE DE L'ÉNERGIE (Paris, 1951); L'énergie et la matière psychique. Ses LOGIQUES NORMALES ET PATHOLOGIQUES (Paris, 1974); L'homme et ses trois ÉTHIOUES (Paris, 1986).

As for the sciences required to redefine philosophy, they cover the area of knowledge, from *MACROSCOPIC PHYSICS* and *MICROPHYSICS*, *COSMOLOGY* and *ASTRONOMY*, through *CYBERNETICS*, *MATHEMATICS*, *BIOLOGY*, *MEDICINE*, *PSYCHOLOGY*, *SOCIOLOGY*, *ETHICS*, and so on.

At the junction point of the two axes, the Romanian philosopher writing in French developed a *QUANTIC SCIENCE OF CONTRADICTION* which illustrates the three-polar character of *ENERGY* in all its forms of condesation and manifestation: as *matter*; as *spatio-temporality*; as *system*; as *universe*, or as *world*; as a range of *efficient causality*, or *final causality*; as *behavioral adaptability*, or *failure in*

¹ Constantin Noica, Forward to: Stéphane Lupasco, *Logica dinamică a contradictoriului*, Editura Politică, București, 1982, p. 5.

adaptation; as memory; as forgetting; as conceptualization; as a totto genere cognitive approach; as dynamism of conscience and subconscience; as ethics; as "ensignment" and signification; as evaluation; as modalization; as determination; as a critical approach to this or that reason; as (implicit or explicit) dialectics; as (subjacent, or self-conscious) cybernetics; as (spontaneous, or reflected) method, and beyond all this and in terms of all this, as avatar of the logical and of logic.

According to Stéphane Lupasco, (almost) everything is *LOGICAL* and thus *logic* is to be found in everything, as *in re* articulation and also *in mente* frame.

On the basis of the ample discursive development of a philosophy spanning over more than three decades (Stéphane Lupasco's first philosophy volume was published in 1935, and his last one in 1986), we came to disagree to the idea of a *GENERALIZED LOGIC OF THE CONTRADICTORY* and its congeners (logic of the *INCLUDED CONTRADICTION*, logic of the *INCLUDED TERTIARY*, *DYNAMIC LOGIC OF ANTAGONISM*, *ANTAGONIST LOGIC OF ENERGY*, etc.), an idea embraced by the philosopher in an Aristotelian and Hegelian exclusive spirit, and, somehow outside *LOGIC* and *METALOGIC* (or *PROTOLOGIC*), by physicists, biologists, psychologists and anthropologists, ² etc.

We agree, on the other hand, to the idea of a *THREE-POLAR DYNAMIC METHODOLOGY*,³ "to know the world and change it",⁴ a methodology placing the philosopher born at the turn of the century in the line of another reformer of science and epistemology, Charles Sanders Pierce.

The THREE-POLAR DIAGRAM OF THE ENERGETIC STATES, this original "science de l'entre-deux" in Georges Lerbert's terms, also implies the idea of the LEVELS OF REALITY (respectively of PERCEPTION and COGNITION in general), convincingly

² Gérard Moury, *Stéphane Lupasco: Pour une nouvelle logique – la logique dynamique du contradictoire*, Institut National de Recherche et de Documentation Pédagogiques, Paris, 1976; Marc Beigbeder, "La logique d' antagonisme et ses complementarités contradictoires", *Nouvelle Acropole*, June–August, 1982, pp. 31–32; Jacqueline Barbin, Heading article to the (special) issue 23 (December 1982–February 1983) of *Psychologie humaniste* Bulletin, edited by the French Association of Humanist Psyhology (*Stéphane Lupasco: la logique antagoniste et ses possibilités d'application en psychothérapie et dans l'intervention en entreprise*), Paris, 1983, p. 1; Basarab Nicolescu, "Science et contradiction", in: loc. cit., pp. 20–28; Basarab Nicolescu, Preface to: Stéphane Lupasco, *Le principe d'antagonisme et la logique de l'énergie*, Éditions du Rocher, Monaco, 1987; Philippe Girod, "Entretien avec Georges Guelfand", in: *Psychologie humaniste*, 23, 1983, pp. 29–36; Bernard Dugué, "Utilisation de la logique dynamique du contradictoire pour formaliser les systèmes: vers un paradigme ondulatoire en biologie?", in *Revue Internationale de Systémique*, vol. 5, n°. 4, Paris, 1991; etc.

³ The phrase might just as well be equivalent to "THREE-POLED DYNAMIC LOGIC", because Ştefan Lupaşcu considers "logic", "experience" and "method" to be synonimous terms. Cf.: Stéphane Lupasco, Logique et contradiction, P. U. F., Paris, 1947, p. 220.

⁴ Stefan Lupaşcu, *Universul psihic*, translated from French, Institutul European, Iaşi, 2000, p. 207.

⁵ Georges Lerbet, *L'insolite développement. Vers une science de l'entre-deux*, Éditions Universitaires UNMFREO, Paris, 1988.

studied by Basarab Nicolescu⁶ (in terms of the "quantic revolution", as "a simple and obvious explanation of the inclusion of the tertiary", also the idea of antagonism and the one of becoming that the philosopher living in the age of the expansion of the "quantic" spirit and the "microphysical experience" into the very human thinking could not accept whole-heartedly.

Notwithstanding Stéphane Lupasco's reactions of rejection,⁸ and a few attempts to describe the origins of the irrational in contemporary science and art,⁹ he is an illustrious representative of *RATIONALISM*, a *NEO-RATIONALIST*¹⁰ or, perhaps, a *SUPER-RATIONALIST*,¹¹ simply because he touched on all the dominants of *REASON*, the way they are described by Gilles-Gaston Granger¹².

We specifically state that Stéphane Lupasco: (1) expressed the new *ideals* of cognition and action; (2) imagined new *attitudes* in the re-signification of the data of experience; (3) opened up new *methods* of thinking; (4) formulated new *principles* of stating ideas; (5) illustrated new *modalities* of dealing with and appraising events; (6) found new *rules* of decoding the real; (7) described a new *kind of conscience*; (8) highlighted new ways of *certain cognition* and *just action*.

The thesis we defend is justified by the multitude of the discursive manifestations and objectives in the works of Stéphane Lupasco.

Stéphane Lupasco (the philosopher, the epistemologist and the methodologist whose wide range of ideas is largely suggestive of new fields, and whose reconfiguration of *reason* provides further dimensions to *l'esprit du siècle*) left his imprint: (1) at the *COMBINATORY* level, of formal reason; (2) at the *LINGUISTIC* level; (3) at the *AXIOMATIC* level; (4) at the *ALGORHYTHMIC* level; (5) at the level of *CONSTRUCTIVE MOVEMENT* making of reason the main propulsive force; (6) at the *MATHEMATIC* level; (7) at the level of *CREATION stricto sensu*.¹³

⁶ Basarab Nicolescu, *Nous, la particule et le monde*, Ch. "La génèse trialectique de la Réalité", Le Mail, Paris, 1985.

⁷ Basarab Nicolescu, *Le tiers inclus. De la physique quantique à l'ontologie,* in: Horia Bădescu et Basarab Nicolescu (éds.), *Stéphane Lupasco: L'homme et l'œuvre*, Éditions du Rocher, Monaco, 1999, pp. 113–144

⁸ "Me ranger maintenant parmis des rationalistes [...] c'est là que réside le malentendu" (Ștefan Lupașcu, letter to Edgar Morin on 19 February 1972). Cf.: Edgar Morin, Entretien avec Basarab Nicolescu, in: Horia Bădescu et Basarab Nicolescu, loc. cit., p. 48.

⁹ Dominique Terré-Fornacciari, *Les sirènes de l'irrationnel*, Albin Michel, Paris, 1991; Dominique Terré, *Les dérives de l'argumentation scientifique*, P.U.F., Paris, 1998, especially pp. 115–120 (subchapter 2–IV: "Stéphane Lupasco et le dualisme antagoniste").

¹⁰ Vasile Sporici, *Un néo-rationaliste dialectique*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, pp. 253–263.

¹¹ Gaston Bachelard, La Philosophie du Non. Essai d'une philosophie du nouvel esprit scientiphique, 1940, 4^e édition, P.U.F., Paris, 1966, p. 137.

¹² Gilles-Gaston Granger, *La Raison*, P.U.F., 7^e éd., Paris, 1979, p. 6.

¹³ Gilles-Gaston Granger, op. cit., pp. 42, 51, 55, 59, 64, 66.

At the level of formal combinatorics, Stéphane Lupasco gives due of right — with the most constricting logic — to the simple idea that the mechanism of opposition in any energetic manifestation articulates three rather than two terms, two of the terms in focus being the extremes of dynamism, the middle terms being the most intense collision of the contrary tendencies.

The *LINGUISTIC* level of reason is abundently highlighted by the stylistic quality of Stéphane Lupasco's work, by the accuracy of his discourse in contradistinction with the century-old ideal of non-contradiction, which is why some of the contemporary thinkers see him as an exponent of (non- and anti-Aristotelian) *PARA-CONSISTENT* logic.¹⁴

At the AXIOMATIC level of reason, Stéphane Lupasco expresses the rhythms of "contradictional" reason in "basic" phrases of energetic antagonism and also in combinations of phrases making up DEDUCTION TABLES, respectively ORTHO-DEDUCTIONS and PARA-DEDUCTIONS, thus tripling the axiomatics of inherited logic, of identifying reason.

Especially in his "quantic" logic, the Romanian philosopher meets with similar approaches, like the *logic of quantic mechanics* represented by the three-valued Łukasiewicz-type formalisms;¹⁵ the *logic of quantic mechanics* as syntax of the experimental propositions interpreted on sets of points in the "field of phases";¹⁶ the " L_{3E} " three-valued (onto)logic, the " L_{3Q} " three-valued noeto-logic and the logic of complementarity, studied by Paulette Février;¹⁷ the logic of quantic mechanics in the manner of Hans Reichenbach,¹⁸ with many other such approaches by H. Margenal,¹⁹ Hilary Putnam,²⁰ Ernst Nagel, ²¹ Paul Feyerabend,²² T. A. Brody,²³ etc.

¹⁴ Dominique Terré, Les dérives de l'argumentation scientifique, 1998, pp. 115–120.

¹⁵ Zygmund Zawirski, *Les logiques nouvelles et le champ de leur application*, "Revue de Métaphysique et de Morale", 1932, pp. 503–519; *Über die Anwendung der mehrwertigen Logik in der empirischen Wissenschaft*, in: *Das Causalproblem*, II ("Internationaler Kongress für Einheit der Wissenschaft"), Kopenhagen, 1936. Cf.: Anton Dumitriu, *Istoria logicii*, Editura Didactică şi Pedagogică, Bucureşti, 1969, pp. 525–526.

Garret Birkhoff and John Von Neumann, *The Logic of Quantum Mechanics*, in: "Annals of Mathematics", XXXVII, 1936, pp. 823–843.

¹⁷ Paulette Février, *Les relations d'incertitude d'Heisenberg et la logique*, in: "Travaux du IX ^e Congrès International de Philosophie", VI, Paris, 1935, pp. 88–94; *Idem, La structure des théories physiques*, Paris, 1951

Hans Reichenbach, *Philosophical Founadions of Quantum Mechanics*, Berkeley, Los Angeles, 1944, German edition, 1949; Idem, *Les fondements logiques de la théorie des quanta: utilisation d' une logique à trois valeurs*, in: *Applications scientifiques de la logique mathématique* ("Actes du 2^e Colloque International de Logique Mathématique", Paris, 1952), Paris, 1954, pp. 103–104.

¹⁹ H. Margenal, *The Nature of Physical Reality*, New York, 1950.

²⁰ Hilary Putnam, *Three-valued Logic*, in: "Philosophical Studies", 8, 1957, pp. 73–80.

²¹ Ernst Nagel, *Professor Reichenbach on Quantum Mechanics: A Rejoinder*, in: "The Journal of Philosophy", XL, 1946, pp. 247–250.

²² Paul Feyerabend, *Reichenbach's Interpretation of Quantum Mechanics*, in: "Philosophical Studies", 9, 1958, pp. 49–59.

²³ T. A. Brody, *On Quantum Logic*, in: "Foundation of Physics", vol. 14, no. 5, 1984.

Such a revision by integration rather than by dissolution, of Boole's "algebra" of classes as genres, and of sylogistics as a system of systems including genres, Stéphane Lupasco calls algorhythmics, and the kind of formalism he developed, in terms of a sui generis predictional analysis, seems to be wholly compatible with algorhythmics, which is quite mysteriously changed into support for artificial intelligence.

That the level of the *CONSTRUCTIVE MOVEMENT* of the spirit is brought into play is seen in the abundent energy with which the philosopher drew, in clear-cut and still pleasant colours, a wide lively network of cognitive facts introducing, much like a Dutch painter, various fields of human knowledge, and all this meeting the requirements of trialectics.

Conversant with mathematics, the way it was in the 1930's, Stéphane Lupasco did not fail to draw new fields of the science on quantity (discreet but continuous in form) and suggested epistemic approaches, like SYSTEMOLOGY, 24 STRUCTUROLOGY, 25 DIALECTO-METHODOLOGY, 6 etc., never ceasing to put forward the idea that becoming means *opposition* and *equilibrium* between extremes.

Familiar with the most diverse manifestations of what was new in knowledge, Stéphane Lupasco is described by Georges Mathieu as "approaching all the domains of thought and life: physics, from mathematics to be sure, biology, medicine, psychology, through arts, dreams, ethics, sociology, to metaphysics and religion". ²⁷ While covering the "rich variety" of the quantic universe, Stéphane Lupasco

employed an "epistemology to require a new logic". 29 It is worth discussing whether the LOGIC OF ENERGY, described as a "fabulously rich work", 30 is actually a "logic" (either one of the "contradictory dynamism", or one of "antagonism and the contradictory complementatity"³¹). Failing to see a "T STATE LOGIC" (and its subjacent contradiction), like Edgar Morin³², does not mean diminishing the contribution of the Romanian philosopher to the study of the "energetic non-being" which is the becoming³³ and of contradiction as "house of eternity".

Stéphane Lupasco, Qu'est-ce qu'une structure?, 1967, p. 44.

²⁶ Ştefan Lupaşcu, *Universul psihic*, Iaşi, 2000, pp. 207, 209, 215, 223, 240.

²⁷ Georges Mathieu, *Mon ami Lupasco*, in: Horia Bădescu et Basarab Nicolescu (éds.), vol. cit., pp. 26-27.

Michel Camus, Stéphane Lupasco et la revue "Lettre Ouverte" en 1960, in: Horia Bădescu et Basarab Nicolescu (éds.), vol. cit., pp. 37-41, p. 39.

²⁹ Michael Finkenthal, Rethinking Logic: Lupasco, Nishida and Matte Blanco, in: Horia Bădescu et Basarab Nicolescu (éds.), vol. cit., p. 217.

⁰ Georges Mathieu, *loc. cit.*, p. 26.

³¹ Stéphane Lupasco, *Letter to Edgar Morin* on 19 February 1972. Cf.: Edgar Morin: *Entretien* avec Basarab Nicolescu, in: loc. cit., pp. 47, 49.

Bedgar Morin: loc. cit., p. 53.

33 Stéphane Lupasco, *Qu'est-ce qu'une structure*?, 1967, p. 94.

²⁴ Stéphane Lupasco, Les trois matières, Julliard, Paris, 1960, p. 135; Idem, Qu'est-ce qu'une structure?, Bourgois, Paris, 1967, p. 44.

³⁴ Stéphane Lupasco, *Les trois matières*, 1960, p. 105. Cf., also: Michel Random, *L'énergie et* la troisième matière, in: Horia Bădescu et Basarab Nicolescu (éds.), vol. cit., p. 284; Michael Finkenthal, *loc. cit.*, p. 217.

In the vast "domain of contradiction"³⁵ (marking off the work of the energetist philosopher) the *THREE-POLAR METHODOLOGY* gives Stéphane Lupasco the stature of Charles Sanders Pierce living only several decades before him.

Deeply connected with the *CONTRADICTION TYPE REASON*, Stéphane Lupasco is to be seen as an exponent of dialectics and scientific hermeneutics.

Who's afraid of the lessening effect of labelling should not forget that the "individuality" of a personality is ultimately a "packet", or a "condensation" of generals.

Thinking of Stéphane Lupasco as a great (NEO)RATIONALIST, or even a SUPER-RATIONALIST, in Gaston Bachelard's terms, ³⁷ does not mean making of him an outsider to his kindred spirits but, rather, making of him an alternative to them, giving him his right of due, one of the great philosophers of his age, maybe "the greatest 20th century philosopher". ³⁸

If in a former study Lucian Blaga has been styled a "great neo-kantian", ³⁹ Stéphane Lupasco might just as well be described as NEO-RATIONALIST, as one of the great NEO-HEGELIANS, perhaps, the GREATEST NEO-HEGELIAN.

As a matter of fact, this "homme de la Promesse", this "figure de l'homme prophétique" is another Hegel, just like he is another Aristotle, another Claude Bernard, another Émile Durkheim and another Henri Bergson. 41

As logic is ultimately the main concern and the beacon of the Romanian philosopher based in Paris, some further discussion is necessary.

The fact that Stéphane Lupasco's three-polar logic is not out of keeping with the first *Organon* coming to full self-awareness in the field of theoretical science is highlighted not only by the inclusive perspective of the "science of contradiction" but also by the triadic configuration of the Stagirite's logic which superimposes the (practical, or rhetorical) *LOGIC OF PERSUASION THROUGH DISCOURSE* (in the horizon of the opinable) on the (analytical and apodictic) *LOGIC OF THE DEMONSTRATION OF TRUTH*, in between coming a lively *LOGIC* (or *TOPIC*), of *FOR AND AGAINST DISCUSSION*, in the horizon of the probable preceding certainty and verisimilitude leading to truth.

This last type, described as such by philosophers after Aristotle, is directly connected with the mechanism of "orthogenesis" studied by Stéphane Lupasco.

³⁵ Michael Finkenthal, loc. cit., p. 224.

³⁶ Constantin Noica, *Scrisori despre logica lui Hermes*, Cartea Românească, București, 1986, p. 61.

³⁷ Gaston Bachelard, op. cit., p. 137.

³⁸ Georges Mathieu, *loc. cit.*, p. 27.

³⁹ Petru Ioan, *Lucian Blaga, un mare neokantian*, in: Mircea Borcilă (ed.), *Eonul Blaga: Întîiul veac. Culegere de lucrări dedicată centenarului Lucian Blaga (1895–1995)*, Editura Albatros, București, 1997, pp. 347–360.

⁴⁰ Gilbert Durand in Georges Mathieu memoirs, in: *loc. cit.*, p. 27.

⁴¹ Georges Mathieu, *loc. cit.*, p. 27.

Mention must be made, as well, that Aristotle's concept of MATTER is superimposed on the "entity containing the contraries of life and death under the umbrella of potentiality", that is to say of the "contradictory", ⁴² and Aristotle's contribution to the idea of complementarity is now being discussed in terms of the HYLEMORPHISM promoted by the ancient philosopher and taken over by his successors.

Georg Wilhelm Friedrich Hegel, on the other hand, made of logic the pivotal point in philosophy, and if his *trichotomy of logic* promoted by the triadic schema of the becoming of the soul (as *SUBJECTIVE* spirit, *id est soul*, then conscience and spirit, to be seen in law, morality and the institutions of ethics; as *ABSOLUTE* spirit, *id est* arts, revealed religion and philosophy) were not enough, the three-polar partition dealt with in two of his books is quite revealing.

In Hegel's philosophy, much like in Stéphane Lupasco's, one of the "parts" or "moments" of logic (and of "any real logic, id est any concept, anything generally true" asks for and counterbalances (at the maximum tension of contradiction) the other two "parts" or "moments", in their position of extreme logics. Granted that (1) the moment of "thought as intellect" and the corresponding logic, of the BEING; (2) "the dialectic moment, of negation" and the corresponding logic, of ESSENCE; (3) the moment of "the speculative, or the positive rational" and the corresponding logic, of the CONCEPT.

Stéphane Lupasco's three logics are, therefore, three *ONTO-LOGICS*, ⁴⁶ or, more precisely, *THREE HORIZONS OF AN ALL-INCLUSIVE ONTOLOGY* in which the ancient Aristotelian-mediaeval categories of *ACT* and *POTENCY* are closely connected with the irrepresible evolution of the Hegelian discourse of *BECOMING*, to lead us to an original *METHODOLOGY OF THE FRACTALS OF ENERGY* and help us accept, as naturally as possible, in the closest context, a principle like that of Einstein's relativity, ⁴⁷ which seemed to be suspended in the realms of mega-cosmos.

ACTUALIZATION (or achievement), POTENTIALIZATION (or virtualization) and state equidistant to the two extremes; HOMOGENIZATION (or identification),

⁴² Dominique Temple, *Le principe d'antagonisme*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 249.

⁴³ Thierry Magnin, *Entre science et religion. Quête de sens dans le monde présent* (preface by Basarab Nicolescu, postface by Henri Manteau – Bonamy), Éditions du Rocher, "Transdisciplinarité" series, Monaco, 1998, pp. 85 sqq.

⁴⁴ Georg Wilhelm Friedrich Hegel, *Enciclopedia științelor filosofice*, partea I, *Logica*, Editura Academiei, București, 1962, p. 157.

⁴⁵ *Ibidem*, pp. 41 sqq.; *Idem*, *Ştiinţa logicii* (translated by D.D. Roşca), Editura Academiei, Bucureşti, 1966, pp. 167 sqq.

⁴⁶ Pompiliu Crăciunescu, *L''état T'' et la transcosmologie poétique*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, pp. 183–216.

⁴⁷ With a novel principle of relativity in terms of Lupasco's philosophy Basarab Nicolescu deals in: *Le tiers inclus, loc. cit.*, p. 137.

HETEROGENIZATION (or diversification), and state equidistant to the extremes; OBJECTIFICATION, respectively SUBJECTIFICATION and STATE EQUIDISTANT TO THE TWO EXTREMES – these are the elements in the "stylistic matrix" of a philosophy reminding us, in ample coordinates and in an equally "personal" interpretation, of both Wilhelm Ostwald's ENERGETISM⁴⁸ and Alfred North Whitehead's ORGANICISM.⁴⁹

As a promoter of an *OPEN RATIONALITY*, "flowing rather than frozen", ⁵⁰ with echoes in Edgar Morin's "dialogic", ⁵¹ Stéphane Lupasco meant to "revolutionize the intellect" and actually contributed to it, obliging us, like a contemporary Leibniz, "to reconsider all the problems in the light of logistic mechanisms". ⁵²

Learning the lesson of microphysics like no one else, Stéphane Lupasco extended it into the field of *sciences of life* and, a few years before Niels Bohr, introduced the principle of complementarity⁵³ taking upon himself the task of exploring cybernetics, psychology and psychotherapy, sociology, ethics and aesthetics.

"A forerunner in the field of cognition research from the latest point of view", 54 Stéphane Lupasco saw the cerebral events as quantic phenomen, manifestations of the "uninterrupted and irresistible becoming" 55 thus contributing in a decisive manner to the "dismemberment" of the psychic system and the display of the dialectics of conscience, signification and resignification, memory and forgetting, etc.

In the spirit of rationalism and under the umbrella of a genuinely rationalizing attitude, Stéphane Lupasco decanted the *SCHEMA OF THE THREE MAJOR ENERGETIC STATES*, and the surprising pattern helped him consider some unknown fields of mathematization and mathematics-type formalization, and enabled him to find ways to accomodate physics to the multiple layers of reality. ⁵⁶

Mention should also be made, in terms of the same three-polar paradigm the Romanian philosopher operated with, of: the "rational coherence" in modelling the psychic universe⁵⁷; the "founding epistemologic lesson" with echoes in the

⁴⁸ Author, among others, of *Vorlesungen über Naturphilosophie* (Veit & Co., Leipzig, 2 vol., 1902), of *Die Energie* (J. A. Barth, Leipzig, 1908; French translation by E. Philippi, 2^e éd., Alcan, Paris, 1910), of *Energetische Grundlagen der Kulturwissenschaft* (W. Klinkhardt, Leipzig, 1909; French translation by E. Philippi, V. Giard et E. Brière, Paris, 1910) and of *Die energetische Imperativ* (Akademische Verlagsgesellschaft, Leipzig, 1912).

⁴⁹Author, among others, of *Process and Reality. An Essay in Cosmology* (MacMillan, New York, 1929).

⁵⁰ Georges Lerbet, *L'"Univers psychique" et la pensée complexe*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 106.

⁵¹ Edgar Morin, *loc. cit.*, p. 44.

⁵² Georges Mathieu, loc. cit., pp. 18, 27.

⁵³ Dominique Temple, *loc. cit.*, p. 239.

⁵⁴ Georges Lerbet, *loc. cit.*, p. 137.

⁵⁵ Michel Random, loc. cit., p. 283.

⁵⁶ Basarab Nicolescu, Le tiers inclus, in: loc. cit., p. 129.

⁵⁷ Georges Lerbet, *loc. cit.*, p. 97.

anthropological sciences⁵⁸; the approach to art from an epistemological point of view⁵⁹; the systematization of the ideas on education and school from a new angle⁶⁰; the reconsideration – along new coordinates – of the equilibrium between culture and civilization⁶¹; the appeal to complementarity in theology⁶²; the foundation of a "practical transcosmology", and "the dynamic concilliation between the biological and the noological, a necessary step after the psychoanalitic one"⁶³; the configuration of a "musical-logical axiomatics", focused on the duality of musical space and time⁶⁴; and many other exemplifications and interpretations.

Due to his guiding *ONTO-LOGICAL* pattern, Stéphane Lupasco: anticipated by one decade the bootstrap principle which was to be introduced in quantic physics by Geoffrey F. Chew⁶⁵; got into Edgar Morin's "pantheon"⁶⁶; met in spirit with Olivier-Costa de Beauregard⁶⁷; confirmed Ludovic de Gaigneron⁶⁸ in what concerns "the synthetic field concilliating affirmation and negation in a show in which science got rid of nothing else save the negative aspect"; inspired Julien Alvard in *L'Art Moral*⁶⁹; had Salvador Dali⁷⁰ among his disciples, and the series of such occurrences could go on and on.

- ⁵⁸ Gilbert Durand, *L'Antropologie et les structures du complexe*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 67.
 - ⁵⁹ George Mathieu, *Mon ami Lupasco*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 18.
- ⁶⁰ Cf.: Robert E. Horn (ed.), *Trialectics: Towards a Practical Logic of Unity*, Lexington Institute, 1983; Olivier Clouzot, *Enseigner autrement. Des logiques éducatives à la transparence pédagogique*, Les Éditions d'Organisation, Paris, 1989, pp. 49–50.
- ⁶¹ André Peretti, *La potentialisation énergétique selon Lupasco et son application à l'éducation et la culture*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 268.
 - 62 Thierry Magnin, op. cit., ch. "Différents niveaux de réalité?", pp. 59–66.
 - ⁶³ Pompiliu Crăciunescu, *loc. cit.*, pp. 183, 213.
- ⁶⁴ Costin Cazaban, Temps musical / espace musical, comme fonctions logiques, in: Hugues Dufourt, Joël-Marie Fouquet et François Hurard, L'Esprit de musique. Essays d'esthétique et de philosophie, Klincksieck, Paris, 1992; Idem, Le temps de l'immanence contre l'espace de la transcendance: œuvre organique contre œuvre critique, in: Horia Bădescu et Basarab Nicolescu (éds.), vol. cit., pp. 225–235; Mireille Vial-Henninger, Essay de mythe-analyse du procesus de création musicale (thèse de doctorat), Septenrion Presses Universitaires, Paris, 1966.
- ⁶⁵ Geoffrey F. Chew, *Hadron Bootstrap: Triumph or Frustration?*, "Physics Today", vol. 23, no. 10, 1970; Basarab Nicolescu, *Nous, la particule et le monde, Le Mail*, Paris, 1985, ch. "La théorie du *bootstrap* topologique".
 - 66 Edgar Morin, loc. cit., p. 59.
- ⁶⁷ Olivier-Costa de Beauregard, *Le réel est-il autoporteur?*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 283.
- ⁶⁸ Ludovic de Gaigneron, *L'Image ou le Drame de la nullité cosmique*, Le cercle du livre, Paris, 1956, pp. 184–185; Barasarb Nicolescu, *Le tiers inclus*, in *loc. cit.*, p. 120.
 - ⁶⁹ Georges Mathieu, *loc. cit.*, p. 25.
- ⁷⁰ Alde Lupasco-Massot, *Lupasco et la vie*, in: Horia Bădescu et Basarab Nicolescu (éds.), *vol. cit.*, p. 33.

Obviously so, the strongest echo of Stéphane Lupasco's consequently rational philosophy is to be found in Basarab Nicolescu's "trans-disciplinary model of nature and culture". There are levels of reality and also levels of perception consequent of this paradigm.

As the TRANSDISCIPLINARY SUBJECT is "the whole of the levels of perception and its complementary field of non-resistence", this discourse will have contributed to the "transdisciplinarization" of a philosopher who, true to LOGIC as "admiral-ship" on the troubled waters of cognition, did not fail to see the manifestations of PARA-LOGIC, or the ineffable field of affectivity, with its character of A-LOGICITY. To

⁷¹ Basarab Nicolescu, *La transdisciplinarité. Manifeste*, Éditions du Rocher (collection "Transdisciplinarité"), Monaco, 1996; Romanian edition, Polirom, Iași, 1999.

⁷² With the *logic-paralogic-alogic* triad in Stéphane Lupasco's works Marc Beigbeder its first great exegete, deals in: *La logique d'antagonisme et ses complémentarités contradictoires*, "Nouvelle Acropole", June–August, 1982, p. 32.