

LUCIAN BLAGA AND THOMAS KUHN: THE DOGMATIC AEON AND THE ESSENTIAL TENSION

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Abstract: The paper presents in mirror Lucian Blaga's philosophical theory about the stages of knowledge and the significances of dogma, and Thomas Kuhn's theory of scientific change, paradigms and dogma. The similarities and differences emphasized by this comparison are used as basis of some epistemological observations concerning the scientific knowledge.

Keywords: Lucian Blaga, Thomas Kuhn, epistemology, dogma, science, mystery, unknown, knowledge.

INTRODUCTION

In 1931, the young Romanian philosopher Lucian Blaga¹ publishes his first book from his trilogy of knowledge, *The Dogmatic Aeon*², which is followed by his series of ontology, anthropology and theory of culture. Thirty years later, the young

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¹ Blaga's philosophy has elements of irrationalism and hesitations between irrationalism and realism, but it contains a rich theory of knowledge that it's a pity to be forgotten. As we know, "the subjective side of the object" was developed just by this type of philosophy (see Karl Marx (1845, <http://www.marxists.org/archive/marx/works/1845/theses/index.htm> (7-XII-2011)).

² *Eonul dogmatic*, 1993. Excluding the specific quotes from other works of Blaga, this paper reproduces and interprets the ideas from *The Dogmatic Aeon*.

The Dogmatic Aeon was followed by *The Luciferian Knowledge*, 1933, and *The Transcendent Censorship*, 1934.

In the ancient Greek, αἰών meant *time, lifespan, life*. In fact, at first it meant *life* (from ἐ-ών, or ἐ-όντος in Homer). Michel Bréal, 1878, pp. 253–254, explained how this word was formed, ἐ-ών, as an illustration of the phenomenon of the survival of the function of the words after their mutilation: εσ (generating εσ-τί, to be) from the Sanskrit *as* (*as-ti*, he is); later the σ fell, for it is between two vowels, and the ε was underlined by the ών; and after the ε was retired and what remained was the ending, but it kept the significance (*existence, being, life*).

The root of the αἰών meaning *time* is αἰ, a preposition which signifies *if only* or, related to a verb, *in order to*; the length of life is showed just through précising that the existence of a man is circumscribed, or that the existence is concrete and only a certain concrete existence could be considered: a lifespan.

The sense of αἰών as *time* has thus derived from the generalisation of the human lifespan to an impersonal length of time. Moreover, it tended to be related to the feeling of a long and exterior lifespan to that of man: this exterior lifespan (the later understanding of time as receptacle) seemed to be forever, i.e. αἰών became to mean an entire *age*, thus an indefinite long time, even "an eternity". Khronos himself was represented (in Greek-Roman mosaic) as Aion.

This sense of αἰών as *time* was that which was later developed in the Greek Christian doctrine, either as *age* with a finite length – this is the sense used by Lucian Blaga too – or as *eternity*.

American historian of science, Thomas Kuhn, write a paper presented at a symposium, *The Function of Dogma in Scientific Research*³. What does dogma mean in the conception of the two writers? Would a comparison be plausible between such different domains and approaches as those of a philosophical theory aspiring to become a coherent philosophical system and an epistemological theory based on the history of natural sciences?

It certainly is. First and foremost, it's really interesting to link the philosophical imagination, intuition and freedom to create theories not yet based on scientific data and theories, to the scientific imagination, intuition and creation. Indeed, when we read all of these creations we observe that there are many *similar* ideas which we discover as having been repeated – in different intellectual languages and constructions. From a standpoint, people and thinkers always repeat some ideas, conclusions and inferences, since they always re-discover the relationships between different parts and aspects of life, between them and the duration where they make such a marvellous and short journey. From another point of view, a historical one, philosophy has preceded science, as well as epistemology. This could be true even when we compare an individual philosophy with an individual scientific or epistemological theory. Or, to put it in a different way, science demonstrates with its own instruments and finishes what a philosophical theory has advanced, irrespective of its logical coherence. Therefore, our comparison started from a simple curiosity concerning the word *dogma* present in both works: which are its significances in the two texts?

But this means that neither philosophy is reducible to science, nor vice versa, obviously. Although science completes and clarifies a philosophical theory, this one offers us a human creation richer in suggestions than a precise scientific theory that explains a precise concrete aspect. From this standpoint, a) science is like “the normal science” (the mature science developed within a demonstrated and assumed paradigm) toward the grasping of “anomalies”, of contradictions which will push to and allow the creation of a new paradigm, to use Kuhn's formulas, (or toward an aoristic perspective put in order by an aoristic logic⁴), and b) at its highest levels, science, i.e. the quantum mechanics and the celestial mechanics/ or the theoretical physics and cosmology, merges with philosophy⁵, is a new type and moment of intellectual thinking, characterised by a *continuum* science-ontology/metaphysics in the same unit of knowledge.

Then, the connection between works from different domains or intellectual creations emphasises the possibility to translate each of them in the language of the

³ Thomas S. Kuhn, (1963, pp. 347–369).

⁴ See Alexandru Giuculescu, http://sic.ici.ro/sic1998_3/art11.html, and Alexandru Giuculescu, <http://www.bu.edu/wcp/Papers/Scie/ScieGiuc.htm> (15-XI-2011).

⁵ See for example David Bohm & B. J. Hiley (1993), or Bernard d'Espagnat (2006), or Stephen Hawking and Leonard Mlodinow (2005), or Stephen Hawking and Leonard Mlodinow (2010).

other. From this viewpoint, it's important to show *how* and *if* a philosophy is *translatable* in modern scientific terms. And, as we shall see, Blaga's theory of knowledge is translatable and is worth being translated. By this action, we can better integrate a particular philosophy, as the one of Blaga, into the world intellectual and philosophical effervescence: the integration itself is only an opening toward connections, similarities and grasping of differences, and consists rather in common suggestions made by so diverse philosophers such as Blaga and, for example, Husserl.

In what follows, we are going to deal with three concepts – dogma, mystery, tension – which represent some of the main issues the two thinkers focus their research on.

WHAT DOES DOGMA MEAN?

• *Thomas Kuhn*

Thomas Kuhn works with the *usual* sense of this word: that of a fixed cognisance, considered uncritically as being a final truth, a framework which limits the horizon of questions and research. He has studied the history of scientific theories and was interested in their change, demonstrating and concluding that this change is not (only⁶) a development-by accumulation/ cumulative process, but a transformation of the “ways of seeing the world and of practicing science in it”⁷, thus a series of scientific revolutions coming after periods of researches carried out within the framework given by the dominant way of seeing, and substituting each other when the anomalies seen in a certain paradigm⁸ cannot be explained but by shifting the paradigm itself.

Thus dogma is an uncritically seen scientific paradigm: it is not only the paradigm itself, but the position of the scientist toward it, that of an uncritical faith in the overarching paradigm. From faithful perspective, dogma is a form – already a false and an unsatisfactory one – of a former knowledge.

⁶ At the end of the third edition of the *Structure* he insists that there is progress in science also in terms of accumulation of puzzles, as Du Won Kang (2010) mentioned.

⁷ As Thomas Kuhn will write in his seminal *The Structure of Scientific Revolutions* (1996, p. 23).

⁸ *Ibidem*: “a paradigm is an accepted model or pattern”.

Or, in Thomas S. Kuhn (1963, p. 358), paradigm is “a fundamental scientific achievement and one which includes both a theory and some exemplary applications to the results of experiment and observation...it is an open-ended achievement, one which leaves all sorts of research still to be done...it is an accepted achievement in the sense that it is received by a group whose members no longer try to rival it or to create alternates to it ... the developmental pattern of mature science is usually from paradigm to paradigm”.

Also, as later Kuhn explains again, a paradigm is not a dominant idea but “an ‘exemplar’, a concrete set of examples of problem solving that serves as a model” in the absence of a theory and as *sine qua non* elements of a scientific explanatory structure (i.e. of a theory), Du Won Kang, *ibidem*.

From this standpoint, dogma is tantamount to *prejudice*, as Francis Bacon coined and depicted this one: a preconceived idea, even though in Bacon's time it was only the result of religion, education, philosophy and tradition, and was promoted by speculation, not by scientific method, while Kuhn refers to scientific or accredited theories in the field of science. As we know, Bacon created the modern European inductive method and observationalism: according to his view, science consists in cognisance following a pure observation, lacking in any preconception or *idola*⁹, and superior to the metaphysical speculation. *Idola* are the dogmas, normative structures which cannot be surpassed and which lead to the shrinking of man's power to understand and follow nature.

In Kuhn's turn, the scientific theories – which include paradigms – are inherited structures of knowledge. But as Karl R. Popper later explained, always “the instruction comes from within the structure”¹⁰. Being exposed to theoretical pressures, the cognitive structure allows new instruction, which also comes from within the structure and which consists in the emergence of new tentative theories.

Each cumulative process spreads within a scientific paradigm transmitted by a scientific education that is both rigid and rigorous, and consists in “the attempt to force nature into the conceptual boxes supplied by professional education”. This is the “normal science”, which “often suppresses fundamental novelties because they are necessarily subversive of its basic commitments”. But the scientific events (discoveries and new inventions of theory) which do not fit to the old paradigm push scientists to re-evaluate it and construct a new one, generated just by the fundamental novelties emphasized by the scientific events. Consequently, science is a succession of normal science within a coherent scientific tradition and scientific revolutions. The scientific progress is allowed by the bricks produced by the normal science, bricks “forever adding to the growing stockpile of scientific knowledge”, as well as by revolutionary changes constituted from “discoveries that cannot be accommodated within the concepts in use before they were made”, and involving “some relatively sudden and unstructured transformation in which some part of the flux of experience sorts itself out differently and displays patterns that were not visible before”¹¹.

Kuhn points out that “the mature science” has a dogmatism consisting in the *rejection* of “unexpected novelties of facts and theory” by “many of the most creative members of the professional scientific community” and their *resistance* to those novelties. Indeed, “scientific education inculcates what the scientific community had previously with difficulty gained – a deep commitment to a particular way of viewing the world and of practising science in it”.

But, at the same time, both this particular scientific way of viewing the world and the unanimity with which the professional group subscribes to it “provide the

⁹ Francis Bacon, http://www.constitution.org/bacon/nov_org.htm, Book I, XLII, XLIII, XLIV, LXI.

¹⁰ Karl R. Popper (1997, p. 3).

¹¹ Thomas S. Kuhn, (2000, “What are Scientific Revolutions?”, pp. 13, 14, 17).

individual scientist with an *immensely sensitive detector of the trouble spots* from which significant innovations of fact and theory are almost inevitably educed". Therefore, "though a quasi-dogmatic commitment is, on the one hand, a source of resistance and controversy, *it is also instrumental in making the sciences the most consistently revolutionary of all human activities*". And consequently, "one need make neither resistance nor dogma a virtue to recognize that no mature science could exist without them"¹².

Kuhn provides a historical but also psychological and sociological theory of scientific discoveries and progress. "Though scientific development is particularly productive of consequential novelties, scientific education remains a relatively dogmatic institution into a *pre-established problem-solving tradition* that the student is neither invited nor equipped to evaluate"¹³. Moreover, scientists themselves, by having chosen the paradigm in their science, neglect both *the work which they have rejected* and *the problems issued from the rejected paradigm*. Just this blindness to the problems and contradictions within the structure of knowledge is dogmatism in the traditional sense.

We should not forget that in a paradigm "the challenge is *not to uncover the unknown* but to obtain the known"¹⁴. This process is characteristic to the normal science, where "in receiving a paradigm the scientific community commits itself, consciously or not, to the view that the fundamental problems there resolved have, in fact, been solved once and for all"¹⁵.

Therefore, although dogmatism in science allows progress of knowledge, it is nevertheless moving within the frame of the dogma that puts on the brake the creative trend and tends to fix the unilinear cumulative evolution. From this viewpoint, there is a difference between science and, on the other part, "the arts"¹⁶: here, and also in philosophy, the *coexistence* of different schools (let's say, paradigms) and the permanent rethinking of motifs, methods, concepts and critiques allow development but inside their pluralistic state and not inside a unique developmental pattern.

• *Lucian Blaga*

The Romanian philosopher gives dogma an *original* sense, by focusing the entire discussion on the evolution of philosophical knowledge. He does not use the term of paradigm, but the formula "characteristic motifs of thinking", having the same role of framework and criterion of judgement as the paradigm was to have in Kuhn's theory.

¹² The quotes from the last two paragraphs are from Thomas S. Kuhn, 1963, pp. 348, 349 (my emphasis).

¹³ *Ibidem*, p. 351 (my emphasis).

¹⁴ *Ibidem*, p. 362 (my emphasis).

¹⁵ *Ibidem*, p. 353.

¹⁶ *Ibidem*: "and the parallels in the social sciences are at best partial".

At the same time, he is not interested in the contents of dogma, thus resolutely detaching from the religious sense of the notion, but in its structure and epistemological role. Consequently, Blaga shows, dogma as a state of philosophical reasoning can be preceded by a critical control of the philosophical supposition, quite the contrary to the religious assessments.

Indeed and as Kant noted, a dogma as it is in religion is a thesis unconfirmed by experience and accepted without a critical control; and if this manner to treat ideas is taken over by philosophy, this one seems to be plunged into a dogmatic slumbers. Only a skeptical view like Hume's could awake Kant from his "dogmatic slumbers", he insisted, and this conscience led him to further develop the philosophical theory about reason and knowledge.

According to Blaga, dogma is a metaphysical formula or proceeding hiding a methodological sense. He notes that, ordinarily, people reduce cultural forms (ideas, myths, metaphysics) to their abstract sense and that this sense is what spreads, and not the original features and relationships included within ideas¹⁷.

The result is an intellectual crisis, i.e. a dilemma: between the heterogeneous elements of thinking, the ones belonging to the former consistent system of philosophical ideas and the ones generated by the new significances created through abstractization. This dilemma is solved not by bowing the balance on the side of any of these elements, but on the contrary by integrating them in a new and *antinomic* form of cognisance¹⁸. This form is dogma, where logic is no more sufficient (if it would have been so, it would have led to a cognisance with internal consistence – as scientific truths have). The contradictory elements contained and united within dogma¹⁹ suggest some specific relationships and characteristics of the world which could be grasped only following the assembling of the former separate elements: and people *attribute an understanding to dogma, even though this understanding is absolutely missing out*: dogma is a *halo of presupposed senses* and allows a dogmatic knowledge that becomes a habit.

But Blaga does not intend to explain the process of enframing of the human mind in clichés: on the contrary, he wants to show the *operative* function – as a means to clear up into the mystery of the world – and *innovative* function of dogma

¹⁷ Friedrich Max Müller (2003), had just such an interpretation. According to the big historian of language and religion, people have created the idea of divinity through a "radical metaphor"; this idea is a finally created abstract idea after many stories about concrete events with synonymous words signifying different concrete characteristics (and between these synonyms there was also the manner to personalise the characteristics or even the stories). The natural phenomena were thus described as personages with relationships, passions and actions, i.e. by transforming each metaphor (reproduced just through the word that described the particular features of the phenomenon) into a story. With the emergence of abstract words, the names became no more related to the original image, lost their metaphorical significance and what remained was only the simple story/the myth.

¹⁸ Blaga gave examples from the religious dogmas and the medieval philosophy.

¹⁹ Blaga used the word *dogma* in order to express that it's about a specific form of knowledge, different from any other characterised by the laws of thought: identity, non-contradiction, excluded middle.

through *the conscience of the contradictions suggested by it*. In this way, dogma would impulse the creation of *new concepts*, opposed to the existent theories. This specific is similar to that of Kuhn's scientific paradigm: as this one enframes the scientific representation of facts and directs the research, but at the same time is the instrument to detect the anomalies and constitute a new scientific problem, as Blaga's dogma emphasises the coexistence of contradictory theories and the need of new explanations in the realm of philosophy.

THE MYSTERY AND THE UNKNOWN

With Blaga, the *halo of presupposed senses* is the transfiguration of the *mystery* they want to express. Indeed, man becomes human by thinking and understanding: the object of this thinking is just the infinite unknown²⁰ which, by

²⁰ According to Blaga, mystery (something huge and anonymous, as he will describe it through the metaphor of Great Anonymous in *Cenzura transcendentă* (1993) [The Transcendent Censorship]) is the most powerful *factor of knowledge*. Throughout times, this need of a factor of knowledge has been transfigured in metaphysics and named Substance, Being, Immanent Reason/ Logos, or Self, or Conscience, or Unconscious.

But why would *mystery* be – under its metaphysical name of Great Anonymous – *the most powerful factor of knowledge*? It is because man is the most conscious of it and thus it directs his own effort to understand the world. Mystery challenges him and sometimes/ even if sometimes it may be used as limit to know. But the human conscience, of the power and limits of the human as such, is given just by this special factor of knowledge, mystery.

We remember that Martin Heidegger (1962) used “the worldhood of the world” – in contrast with Descartes' interpretation of the world as *res extensa* (pp. 91–102, 122–125, 244–254), and also “the Being-toward-death” (pp. 286–296, 304–310) with the same function of a factor of knowledge. However, there is a difference between the two philosophers: with Heidegger, the concepts describe the intertwining between the object and the subject – or between the worldhood of the world and man as the only instance for which there is significance and being as such; for example, the conscience of the death is about a phenomenon specific to man; while in Blaga, mystery is rather exterior.

But this exteriority strikes the conscience of the human: in fact, the conscience as such constitutes itself through confronting with the infinite unknown where it bathes. First of all conscience means *intuition* of mystery: and beyond learning to react to the environment. The conscience of mystery is the subtext of all the human thoughts and actions; it guides and accompanies the whole process of knowledge.

In this process, the main metaphysical factor of knowledge, the (concept of) mystery is what imposes our categories and matrices of thinking which direct the understanding of the world. Our knowledge is not limited because of mystery, but because of the instruments we have. On the contrary, just because the main metaphysical factor of knowledge is “*absconditus*” (unknown, secret, mysterious), men have the infinite that surpasses the limits given by the instruments of knowledge they have and, thus, that is the profound reason of our generic epistemological optimism and progress of knowledge.

Between the instruments people have – theories, concepts, logic – dogma, even though it could be imposed with extra-epistemological means (which give it the vulgar sense of the word dogma), is the explicit moment of the grasping of mystery, being therefore a privileged means of knowledge.

(Related to the intuition (of mystery): see Edmund Husserl, (1998, § 24, p. 44, § 42, pp. 89–92, § 136, pp. 326–329).

being so, is mysterious and leads the human curiosity, the process of exploration and understanding. We, humans, stay in front of mystery, we clench in a struggle with it, we prove our specific majesty following this struggle.

Because the thinking man understands only partially and in a fragmented manner and because his wish to know is led by mystery, he tries to overwhelm it through the contradictory aspects assembled in the same image. Dogma is in this way not only a stage in the process of knowing but a fruitful one, since it makes people reflect and research what is lying in the space created by the junction of the contradictory elements of dogma.

The felt or intuited world is the ground of dogma and, from a standpoint, the intermediary between mystery and dogma, while from another point of view just this felt or intuited world is mystery as such. In fact, the world is much more complex than it appears, and than it might be ordered starting from the needs to order the necessary aspects²¹; consequently, mystery is the question mark that has to accompany the feelings and intuitions about the world in order to better know it.

With all the progress of knowledge, mystery remains unchanged in depth and size. And we succeed in knowing something, always more than before, not only through the separate insight of ordered and differentiated features and realms – corresponding to the different elements of the future dogma – but also through the dogma itself which is the conscience of mystery. Dogma helps the progress of knowledge just through the conscience of the mysterious *contradictoriness* that impulses the philosophical inquiry and the creation of new concepts and theories, absolutely improbable in the old frame of non-contradictory logical reasoning. On the contrary, dogma is the *transfiguration of the antinomy* it contains into a pressure to understand *beyond* logic which never accepts the coexistence of contradictory theories within a single construction.

By focusing on the evolution of the scientific knowledge of the exact sciences of nature, Thomas Kuhn supplies a quite different representation. First of all, if Blaga insists that the logic of non-contradiction is no more sufficient, in Kuhn's view the entire scientific change takes place with the help of logical instruments: logic has to be clear and transparent and it sustains the scientific means like experiments and demonstrations. In science, logic *must* not be surpassed, it is the main instrument and criterion of validation.

The scientific community confers on a theory a value of truth²² which appears after logical and clear demonstrations.

²¹ Indeed, the individual cannot attain the cognizance of the significances of the world: mystery, as it is theorized in metaphysics, is that which censors him, Lucian Blaga, *Cenzura transcendentă*.

²² As we know, Kuhn is not at all the partisan of the theory that science advances toward the truth, but that it progresses through paradigms that allow better puzzle-solving, thus understanding nature. But this goal of puzzle-solving is what generates the creation of paradigms – thus occurring through experiences. The teleology of finding the truth is substituted with the randomness of practice and experiences.

In science, mystery is *the unknown*: it is obviously mysterious, but through researching the scientist comes nearer and unveils it, either through accumulations of data (in the normal science) or through leaps (the change of paradigms). Science advances by substituting the metaphors that it obviously uses at the beginning of a confrontation with a problem: the problem itself is many times expressed in the form of a metaphor, since it is not absolutely clear what it wants to point out, what is the problem as such, or what is the problem cut out from the other set of nearby problems; but through research and measurement the metaphors become no more necessary but even an annoying slag.

In a sense, the metaphors used by science could be compared with the *tacit knowledge* – which is not only know how, but also sensitivity towards the relationships and aspects of reality that are not yet formalised in clear and logically valid expressions, but felt as senses of reality –. This tacit knowledge is “that which is understood without being openly expressed; it is unvoiced or unspoken”²³. Metaphors are already spoken, but would they not constitute a presumption of the unknown whose senses are – at least, at the beginning, as the epistemology shows – only intuited?

The unknown is infinite, but scientific knowledge is also infinite and occurs, Kuhn considers, not only through the competition of simultaneous different theories, but rather through the change of paradigms (which are thus historical). Just the conscience of the infinity of the world and knowledge leads to scientific change. While according to Blaga, just the conscience of mystery, with its inherent contradictions, leads to new philosophical theories.

THE ESSENTIAL TENSION WITHIN KNOWLEDGE

Both thinkers highlight that neither the evolution nor the structure of thinking could be explained without a deep conscience of the contradictions inside the process of knowledge as such: and within the relationships between the structures of knowledge and the object.

Kuhn shows that “scientists are trained to operate as *puzzle-solvers from established rule*, but they are taught to regard *themselves as explorers and inventors who know no rules except those dictated by nature itself*. The result is an acquired *tension*, partly within the individual and partly within the community, between professional skills on the one hand and professional ideology on the other”²⁴. There is, therefore, a tension between two opposite standpoints concerning the scientific knowledge: the one of the normal science taking place within the frame of an accepted paradigm and with the means of classical logic, and the one of the revolutionary change of the former paradigm shaken by unexpected anomalies. In

²³ Paul M. Hildreth, Chris Kimble, 2002.

²⁴ Thomas S. Kuhn, (1963, p. 368 (my emphasis)).

Blaga's language, these anomalies are the antinomies which, for a while, are integrated in a provisional theory which tries to fit them with the features of the old framework. Theory change as structure change is the result of this situation of contradictions inside the scientific explanation of the object.

In Blaga, the "tension" is between the heterogeneous elements: a) from the real world, b) from the formulae of thinking, and united in a dogma following an intellectual crisis. And what is important is that the modification of the cognitive structures (the new theory), is the result of assumed antinomies integrated within the dogma and that must not be masked. Thus it's a creative tension whose solving as a whole involves a surpassing of the classical logic, used however at the level of each element.

This problem of tension²⁵ – fruitful and of long standing, so that it could give the colour of an entire epoch – is important not only to philosophy, where new contradictory concepts²⁶ lead to the progress of thinking, but also to science: see the "synthetic" discoveries – as the particle wave theory of light – that are new paradigms opening up and focusing on a space of tension.

SIMILARITIES AND DIFFERENCES

1. The first similitude is that both concepts, the mystery and the unknown, are structures of knowledge that cannot be explicated completely. They have ubiquitous places in the process of knowledge: first of all, they are the precedent or criterion of this process as such; then, they re-constitute this function during the evolution of a certain theory in a specific field: they challenge the "ultimate" state of this theory, inducing the doubt that this state would really be the ultimate. The result of this challenge is the beginning of a new ontology/physical theory, reflecting the contradistinction between a thirst for an ultimate synthesis and, on the other hand, the limits of knowledge, thus its relative characteristic.

2. A difference is the metaphorical use of the concept of dogma by Blaga.

3. But the reasoning of both thinkers about the structures of knowledge is similar: as well as the paradigms, the dogmas and the philosophical ideas issued from a normal logic are always challengeable since they are only relative re-productions of

²⁵ This problem could be compared with the recent theory of *bounded rationality*. In management for example, the contradictions between the decision-makers and the result of their decision led to the models of *optimisation under constraints* (the constraints of minds with limited time, knowledge, and other resources). "Contrary to conventional wisdom, limitations of knowledge and computational capability need *not* be a disadvantage". This viewpoint is similar to that of Blaga's. But the difference is that rationality as optimization / heuristic tools 1) has to be simple (by using the classical logic), 2) to exploit a regularity in the environment and 3) to work in a class of situations – according to Gerd Gigerenzer and Reinhard Selten, (2001, pp. 3–11) –, thus 4) to allow accessibility, 5) to occasionally correct the intuitive judgements (Daniel Kahneman, 2003).

²⁶ See the concept of organism, developed in the current of vitalism.

the unknown, or since they still are mysteries. What is more, because the unknown space is larger than the known, one has to challenge the theories by confronting the abstract concepts (which have to be “reduced” in a phenomenological manner, Husserl), often presented as clichés, with two simultaneous methods of thinking: with the logical and focused on the concrete, and with the trans-logical, synthetic, “dogmatic”.

4. According to Kuhn, a new, alternate paradigm is proposed by young scientists to solve the problems emphasised by the research carried out in the old paradigm. It’s not important here how this new paradigm will be accepted and taken over by the scientific community, but only that it is a *discontinuous* moment in science (although prepared by the reflection on the anomalies which appeared in function of the old paradigm). In his turn, Blaga insists on the anterior moment of the new pattern of philosophical thinking: *before the discontinuity* as such there is dogma, which expresses in a coherent form, with the help of *synthetic* concepts, an intuitive understanding of the complexity that transcends the former simple images about different and opposed aspects and concepts.

Thus dogma is the *middle* between a *paradisiacal* knowledge – when the unknown is perceived only as *a lack* in the series of the known data (equivalent to the normal science) – and the *Luciferian* knowledge whose specific is *the problematic* – the crisis of the object, the conscience of contradictions, and the theoretical construction of the system resulting from this conscience –²⁷ which could be analogous to a knowledge through jumps, or through revolutions. But, at the same time, dogma is a part of the Luciferian knowledge, since it is the intuition of the antinomies from within the mystery, and the effort to uncover what the mystery shows and what it veils. Therefore, if the object is the mystery, the understanding is problematic.

Dogma is the acceptance of both elements of a contradiction / of both opposed philosophical theories: the normal logic of three classical laws of thought, the principles of identity, non-contradiction and of *tertium non datur*, does no more function.

Both paradigm and dogma replace the already incompatible knowledge: incompatible according to “the irrational of the concrete” which is always richer than the abstract concepts and is an opening towards the depth of the mystery/unknown.

FINAL REMARKS

1) Each of the two thinkers is concerned with the problem of contradiction. Kuhn was interested to show how scientists solve the anomalies emphasised despite the old paradigm that explain the natural world by annulling the contradictory

²⁷ Lucian Blaga, *Cunoașterea luciferică* (1993, vol. 2, p. 20) [The Luciferian Knowledge].

theories, but also with the help of that old paradigm, thus he is motivated by the question of the evolution of thought. Before him – but imbued with the acquisitions but also defects of the irrationalism of the time –, Blaga constructs a metaphysics of knowledge in order to enlarge it with the realm of contradiction; but beyond the classical logic²⁸.

2) Both writers focus on the development of knowledge, scientific or philosophical. Both are the advocates of the revolutionary view of the progress of science/philosophy or, better, both deny the only cumulative view by insisting on the moments and relationships within the evolution of knowledge. They show the cultural framework within which the old style of thinking puts on the brake but at the same time allows a creative mobility constituting a new, “heroic” or paradigmatic “aeon”.

Kuhn’s “normal science” and “scientific revolution” or Blaga’s “local culture” and “aeonic periods” mean the same division in the history of knowledge. In fact, there are – they demonstrate – two stages in this history, or two levels expressed as cultural forms: in the first, the pattern is given by fixed forms which are, however, fruitful; for example, these patterns support a living movement of research of the particular facts that can be studied in their frame and in this way they allow the accumulation of problems and contradictions leading to the change of the model of *Weltanschauung*; in the second, the creation of this model of worldview seems to offer a larger, universal space for the “third world” (Popper) than before (or than ever, and this is true and, at the same time, only a historical impression); at this stage, new and vast syntheses could be constituted, as a new basis for a new “normal” state of the effort of knowing.

Both draw our attention to the manner the worldviews, grand theories and categories form the “style matrix” of a period and enframe the thinking in philosophy and science.

3) Putting together and comparing a philosophy of philosophical knowledge and a “historical philosophy of science”²⁹ send to the concepts of commensurability or incommensurability of paradigms³⁰, thus of theories and intellectual domains. Kuhn was the partisan of the incommensurability between successive scientific

²⁸ Even though Aristotle is a founding father of the classical logic of identity, non-contradiction and excluded middle, his metaphysics suggests that there is a space of interstices that ought to be treated with concepts that transcend the logic manifested in one and single interval. For example, matter and the substances are and have *potentiality* (δύναμις), pure or concrete, i.e. capacity to change toward forms, the result of the change being actuality (ἐνεργεία). Actuality is the process through which potentiality is in the thing and, at the same time, it is the complete and stable state following the process (ἐντελέχεια). The movement is the passing of potentiality into actuality and vice versa. The movement itself is ἐντελέχεια, since it has finality.

These special views and concepts were used by the French philosopher of Romanian origin Stéphane Lupasco who wrote a *Dynamic logic of the contradictory*, where potentiality and actuality replace the values of truth and false and have infinite values.

²⁹ Thomas S. Kuhn, (1992, pp. 105–119).

³⁰ Thomas S. Kuhn, (1982, pp. 33–57).

theories, but the use of his own explanation allow us to show that one can conceive and explain different theories in a specific language, common or not to the theories had in view, but only subjecting them to a process of *hermeneutics*; there are either families of terms/concepts, one of them subsuming the other and allowing the presupposition that there are some relationships between the two families, or the families no overlap at all, but there always are ways of recognising the terms since they have historical, thus empirical, content.

In fact, commensurability is never complete, remaining a territory of “mystery”, using Blaga’s word, this territory itself being not only the part “after” one had compared and translated the intellectual creations, but rather being a level that exists, or a veil that covers the entirety of both creations and suggests that there always are more significances than those already grasped. But this aspect does not annul the possibility to make connections and construct models that help us to understand the domains, their commonalities as well as disparities.

4) In Kuhn’s view, the dogma may follow from the normal science and is both a limitative framework and an efficient instrument to see the contradictions and problems.

According to Blaga, the dogma is only a vehicle in order to momentarily point out a problem, expressed only in a suggesting manner.

But both thinkers have insisted on the complexity of the background of this problem and showed that this imposes “paradoxical” methods and philosophical perspectives.

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