## **APPRAISAL**

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### This issue's contributors:

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Fr Martin Moleski read English at Boston Coll. (Mass) and philosophy at Fordam University, and wrote his Ph. D. (Catholic University of America, 1991) on Polanyi and Newman.

Emeritus Prof. Brian Gowenlock is now an honorary research fellow in the Dept of Chemistry, University of Exeter. From 1946-8 he was a research student working under the direction of Michael Polanyi in the University of Manchester. Following lectureships in the Universities of Wales (Swansea) and Birmingham, he held the Chair of Chemistry at Heriot-Watt University, Edinburgh from 1966 to 1990. He is a Fellow of the Royal Society of Edinburgh.

Dr Harold Turner taught religious studies in Leicester and Aberdeen, founded the Centre for New Religious Movements at the Selly Oak Colleges in Birmingham and in retirement is Secretary of The Gospel and Cultures Trust in New Zealand.

#### **EDITORIAL**

'Lucian who?' I wondered, when I received, out of the blue, an invitation to an International Workshop on 'Lucian Blaga and the Philosophy of Cultural Styles', to be held in Sept. 1995 in Mangalia, a Black Sea resort in Romania.

The encyclopaedia under 'Romanian Literature', stated that he was a poet, dramatist, diplomat and philosophical essayist, and gave no further information about the last. But I recognised other names, Polanyi among them, on the invitation; the list of topics looked interesting; and the cost of the Workshop, over five days, was very reasonable. So I decided to go.

I was not disappointed. Translations of extracts from Blaga's works were provided by the organiser, Dr Angela Botez of the Romanian Academy, and Blaga proved to be an intriguing philosopher, one worth introducing to readers of *Appraisal*. Dr Botez readily agreed to help with that and to join the group of editorial advisers, where her special interest in philosophy of science is especially welcome.

Because Blaga's philosophical

works have not been translated into English, outside the pages of *The Romanian Review*, this issue's special feature can hardly be called a Re-appraisal. Moreover, it was obviously necessary to include at least as much original material by Blaga as articles upon him. In addition, and although *Appraisal* is not a literary magazine, I decided to include some of his poems in translation because they do thow a little more light on the man and his outlook upon the world.

The Foreign Languages Press Group in Bucharest has prepared an English translation of Blaga's *Trilogy of Knowledge* in which we are trying to interest a British publisher. We hope that this issue of *Appraisal* will help to prepare the way in the English-speaking world for a philosopher whose concerns are very much those of the present.

We are grateful to Dr Botez for her assistance in preparing this feature on Blaga, and to the proprietors of *The Romanian Review* for permission to reprint the extracts from Blaga's philosophical works and his poems. I would also like to offer my own thanks to Dr Botez, and her husband, Dr Victor Botez, for their generous welcome, help and hospitality, and likewise to the staff of the Black Sea University under whose aegis the Workshop was organised.

We also have the first part of Fr Moleski's detailed comparison of Newman and Polanyi, Prof. Gowenlock's reconsideration of Polanyi's account of the role of authority in science, and a review of Joan Crewdson's long awaited essay in Polanyian theology. And, following last issue's Re-appraisal of Macmurray, Dr Harold Turner offers some thoughts on Macmurray and Polanyi, while Robin Hodgkin contributes a review of Philip Conford's edited selections from Macmurray's writings.

We shall be very interested to receive further discussions of items and topics that have previously appeared in *Appraisal*, and hope that the journal can stimulate interest in the themes and thinkers which it presents.

### LUCIAN BLAGA:

### BIOGRAPHICAL OUTLINE WITH BIBLIOGRAPHY OF PHILOSOPHICAL WORKS

- 1895 Born (May 9th) as the ninth son of the parish priest (Romanian Orthodox Church) of the village of Lancram in Transylvannia, then in Hungary.
- 1908 The death of his father leaves the family destitute and Blaga has to leave secondary school, but later registers as an external student.
- 1910 Publishes his first poems.
- 1914 Publishes his first philosophical article, 'Notes on intuition in Bergson'. To avoid service in the Austro-Hungarian army, attends theological classes at the Theological Institute of Sibiu, graduating in 1917
- 1918 Begins to study philosophy at the University of Vienna.
- 1920 Awarded his Ph. D. with a thesis, *Kultur und Erkenntnis*. Marries. Returns to Romania. Publishes more poems and also begins to publish plays.
- 1922 Publishes Culture and Cognition (thesis).
- 1924 Publishes The Philosophy of Style.
- 1925 Publishes The Original Phenomenon and The Facets of a Century.
- 1926 Goes as press attaché to the Romanian legation in Warsaw
- 1927 Is transferred to Prague. Dorli, his daughter, is born.
- 1931 Publishes The Dogmatic Aeon.
- 1932 Transferred to Vienna.
- 1933 Publishes Luciferian Knowledge.
- 1934 Publishes Transcendental Censorship.
- 1936 Publishes Horizon and Style and The Mioritic Space.
- 1937 Gives maiden speech, Eulogy to the Romanian Village, at Romanian Academy. Publishes The Genesis of Metaphor and the Meaning of Culture.
- 1938 Transferred back to Bucharest and then to Lisbon. Returns to Romania as Professor of the Philosophy of Culture (a chair specially created for him) at the

University of Cluj.

- 1939 Publishes Art and Value.
- 1940 Publishes The Divine Differentials.
- 1942 Publishes Religion and Spirit and Science and Creation.
- 1943 Publishes The Trilogy of Knowledge (The Dogmatic Aeon, Luciferan Knowledge, Transcendent Censorship).
- 1944 Publishes The Trilogy of Culture (Horizon and Style, The Mioritic Space, The Genesis of Metaphor and the Meaning of Culture).
- 1946 Publishes The Trilogy of Values (Science and Creation, Magical Thinking and Religion, Art and Value).
- 1947 Romanian Students' Union publishes first part of his course, On Philosophical Cognition.
- 1948 Lithographed publication of his course Anthropological Aspects, part of his Cosmological Trilogy.
- 1949 Is dismissed from his chair by the Communist régime and appointed librarian of the Cluj branch of the library of the Romanian Academy. Out of favour, he publishes only translations until 1960.
- 1961 Dies of cancer. Buried at Lancram.
- 1962 Blaga's works begin to be published again, many edited by his daughter.

Posthumously published philosophical works:

1968 Horizons and Stages.

1969 Experiment and the Mathematical Spirit

1977 The Élan of the Island (aphorisms), Philosophical Essavs.

Most of Blaga's philosophical works are being republished in paperback by Humanitas, Bucharest.

Some, including *The Dogmatic Aeon* (1988) and *The Divine Differentials* (1990), have been published in French translation by Libraire du Savoir, Paris.

### Editor's note:

When selecting the texts and extracts that follow, I concentrated on those most likely to appeal to the readers of *Appraisal*: that is, upon those dealing with Blaga's theory of knowledge (his distinctions between 'paradisiac' and 'Luciferian' knowlege, Type 1 and Type 2 cognition, and plus- and minus-knowledge) and his related ideas of a 'stylistic matrix' and 'abyssal categories'. It is here that Blaga touches upon current preoccupations. For it is clear that he rejected any Positivist notion of purely factual and wholly explicit and verbalised knowing. We can never eliminate the mystery that is at the heart of things, and in

minus-knowledge we acknowledge and deepen our awareness of it without eliminating it. Likewise, we deploy a stylistic matrix, a notion which Blaga generalised from art and the history of art to science and all knowing, whose abyssal categories work in the unconscious (a creative source, and not Freud's dustbin of repressions). Today any such afirmation raises the questions of Relativism and whether we can transcend our stylistic matrices (or perspectives, frameworks, etc.). How Blaga dealt or would have dealt with those questions, I do not know. But it is clear from his work that they are questions we must face and cannot dodge.

### PHILOSOPHICAL SELF-PRESENTATION 1

### Lucian Blaga

he six systematic studies published so far complete each other and manifest a certain architectural vision. They are part of a more comprehensive approach that I hope to carry out through the years to come. All of these six approaches belong to the same wider philosophical frame, and they finally outline a metaphysical vision of the whole of existence. Let me say a few words upon the architecture of this system. The system I am conceiving has, unlike the classical ones, a symphonic nature, being neither a one-idea system nor a one-formula system, but is structured rather like a multi-cupola church. Some main rhythmically alternating leitmotifs interweave in this system, which was conceived cyclically, in 'trilogies' dedicated each to one group of daily experiences. Two of these 'trilogies' are already completed and published:

- 1. The Trilogy of Knowledge, containing:
  The Dogmatic Aeon
  - Luciferian Knowledge Transcendental Censorship.
- 2. The Trilogy of Culture, containing:
  Horizon and Style
  The Mioritic Space
  The Genesis of Metaphor and the
  Meaning of Culture.

I am presently at work upon *The Trilogy of Values* and the first version of Volume I, *Art and Value*, is already completed. A volume on the 'equivalencies of truth' and one dedicated to ethical issues are to appear in the same trilogy.....

A central idea, supported by some other leitmotifs, certainly exists in the two trilogies that are already completed: it is the idea of 'mystery', of our existence in the hori-

zon of mystery. The idea of mystery having such a central position, there have been voices criticising me of mysticism and, although I do not believe this would be a crime. I should state that I am not a mystic in my philosophy. I may be in poetry or drama, where mystical experience has its place, which, I believe, no modern aesthetician can deny. However, my idea of placing mystery in a central position of my philosophy is the consequence of the desire I have for a supreme position and exactness in my philosophical thinking. Thus, in The Dogmatic Aeon and Luciferian Knowledge, for the first time in the history of philosophy I thoroughly analysed and examined the very idea of mystery. Neither philosophers nor theorists of science ever did this before. The issue of 'mystery' has been approached as vaguely as possible. I am the first who has ever tried to establish the role of this idea in the formative process of human knowledge. I tried, in The Dogmatic Aeon and Luciferian Knowledge, to provide a sort of logical, almost mathematical, analysis of the idea of mystery, and, after I had placed it in a certain system of co-ordinates, I pointed out the various values of the idea of mystery. Those who have not had the opportunity to read these studies, should not be alarmed by a purely symbolical title such as 'Luciferian Knowledge'. I assure them that we are not talking about the Devil: we are only trying to solve some problems in logic and the theory of knowledge: 'mystery' exists in our vision as a primary, irreducible horizon of our existence. This mystery is atomised, under the pressure and operations of the cognitive process, in innumerable 'variants' that may be logically determined as 'mysteries'.

There are some 'variants': first of all, there is 'mystery' as the primary horizon of the human way of being. There is the 'mystery' that our sense report to us, a mystery described by signs by our empirical sensitivity, and then, the 'mystery revealed' in the constructive, imaginary and abstract areas of vision of our knowledge. This revealed, imaginary mystery may be described as it is and may be subject to a new 'revelation'. The process may continue for ever. And the fact that the mystery may never be converted into non-mystery is also pointed out in my studies. Kant's 'thing in itself' is referred to in these studies as being one of the countless variants of the idea of mystery.

The analysis of the idea of mystery led me to some very peculiar variants. I am speaking about 'intensified' or 'essentialised' mystery. These mysteries may be expressed and formulated only through antimonies: to be precise, through transfigured antimonies In order to illustrate this idea of intensified, essentialised mystery, we had to refer to examples from Neoplatonic metaphysics or from Christian theology. And there is a point on which I would like to insist for a moment. I tried to point out that, as for the variants of the intensified, essentialised mystery, that may be expressed only by means of antimony, a kind of knowing is possible, that has not been experienced since Neoplatonic times and even since Christian dogmatics. I must specify that it is not the actual content of the dogma that I wish to update, but the method that might be inferred from it, a method that may be updated and assimilated by philosophy, as for some external issues. On the other hand, it is worth observing that, due to the quantum theory,

modern physics states the antinomic structure of light; the phenomenon of light is perceived as being an 'undulation' as well as something 'corpuscular', which is a logically incomprehensible paradox. Still, some experiences necessarily demand this antinomic solution. This is why its is believed that modern physics is subject to a crisis. I believe that I succeeded in demonstrating that, as this undularcorpuscular theory of the nature of light is actually a part of a sui generis type of knowledge which I called 'minus-knowledge'. It is not a crisis of modern physics but a new type of knowledge that we are dealing with. We already know that Kant built a theory of knowledge that was meant to justify philosophically Newton's classical physics. Newton's physics represents only a particular case for modern physics. Thus, the necessity for justifying philosophically the constructions of modern physics by means of a new theory of knowledge, is imperative. This is, essentially, what I tried to achieve in The Dogmatic Aeon and Luciferian Knowledge, especially by providing the theory of knowledge with the concept of 'direction'. Knowledge has not-the belief dates from Kant—only one sense (plus), i.e. of 'attenuating' [diminishing] mystery, by means of an infinite theoretical process; knowledge has two opposite senses, that is, plus and minus. And there are circumstances when the 'minus' direction, which does not attenuate a mystery, but, on the contrary, intensifies and radicalises it, rendering its formulation exclusively antinomic, is absolutely necessary. This is how modern physics acts in certain circumstances. These theories must not be regarded as a deadlock, but, on the contrary, they justify a certain type of knowledge which we called 'minus knowledge'. I shall have the opportunity myself to apply in some essential matters this method of minus knowledge which I tried to justify by building a new theory of knowledge. My researches in this field

conducted me to the discovery of some fundamental aspects of human knowledge which remained unobserved until now. To my regret, I do not have the time needed to present step by step the way I proceeded to this discovery. Thus, I restrict myself to some results. Knowledge has a dual nature, and this dualism is essential, irreducible to a common denominator:

- the knowledge built within the frame of the given world and which can be completed with simple 'unknown factors;
- the knowledge built within the frame of mystery, where everything that can be referred to as belonging to the given world is only a sign or signalisation, by means of senses, of certain mysteries.

We called the former 'paradisiac' knowledge and the latter 'Luciferian'. In the frame of paradisiac knowledge, the idea of mystery. which is very complex, has no role, though, even in this frame of knowledge (which operates with intuitions, concepts and intellectual categories as they have been examined since Kant) there may be so-called 'unknown factors'. But mystery implies a more complex 'unknown factor'. Mystery and the attempt to reveal it are the object and task of Luciferian knowledge, which has sui generis articulations and structures. All the elements that also have a role in paradisiac knowledge-i.e. experience, intuition, concept, categories—have different functions in the two types of knowledge. Each of the theories of knowledge elaborated so far has attempted to reduce human knowledge to aspects related only to paradisiac knowledge. When I see a tree and state, 'This tree is an apple tree' (even if I am the victim of an illusion), I perform an act of paradisiac knowledge. When I see the curtain in the window waving and I state that 'the unknown factor', the X that produces the movement, may be the wind, I also perform an act of paradisiac knowledge. However, when I state 'light is an undulation', I perform an act of Luciferian

knowledge. The light was first turned into a sensible sign of the mystery, that we try to reveal to ourselves. The revealing of the unknown factor is in a certain way a *substitute* for the sensible sign and it acquires a firmer existential value than the one the 'sign' is endowed with. The unknown does not approach the known at the same level as it does in paradisiac knowledge; on the contrary, once it is *revealed*, it becomes a *substitute* for the known . . . . .

The third volume of *The Trilogy* of Cognition, i.e. Transcendent Censorship, which I called a metaphysical essay, is a study that entirely differs from The Dogmatic Aeon and Luciferian Knowledge . . . . . Metaphysics is different from science and even from the philosophy of science. Metaphysics is always a leap into the uncontrollable. To put it this way: in metaphysics experience has only the role of a veto, if it happens to contradict it. But experience should not control and verify-not in a positive way-metaphysical conceptions. I reflected upon the result acquired in the two preceding studies, that is, the non-convertibility of mystery into non-mystery. I asked myself if this situation that we are doomed to bear does or does not have a metaphysically transcendent meaning. This was a metaphysical perspective. Suppose our individual consciousness, which includes knowledge and its possibilities and limits, is actually interrupted and controlled by a metaphysical centre of a spiritual nature but being above us. Let us call this spiritual centre, transcendent with respect to its relation with our consciousness, 'The Great Anonym'. Admitting this metaphysical assumption, we could establish why man is not able to convert mystery in any positive or adequate manner. The Great Anonym imposes a censorship upon human knowledge, which prevents us—to our advantage—from knowing in an absolute manner, or from adequately revealing mysteries. This transcendent censorship

applies to us structurally by means of sensible constants and intellectual categories, on which human knowledge perpetually depends. Intellectual categories would be the means of a transcendent censorship which purposively, and to our advantage and maybe to that of the entire world, the Great Anonym uses in order to keep us away from mysteries. If we had the capacity of absolute knowledge, we would be

endangered: we would cease our efforts or we would substitute ourselves for the Great Anonym, which would generate cosmic anarchy. Hence we must see the relativity of human knowledge not as a shortcoming but as the result of a superior metaphysical order. This metaphysical conception of knowledge is in accordance with a given situation, i.e. the fact that mystery cannot be converted into non-mystery. It does not contradict the empirical results. Nevertheless, as it is a metaphysical conception, it may not be controlled by means of empirical data. But this is a commonplace for every metaphysical conception. Anyway, my conception is the

first attempt to a metaphysics of knowledge recently accomplished. It is absolutely new . . . . .

I shall now proceed further to the second trilogy which deals with another group of phenomena: cultural ones. Recent researches have increasingly highlighted the mental aspect of cultural phenomena, that is, 'style'. It has been pointed out that there is a certain stylistic uniformity that is common for cultural phenomena: there is the same 'style' that applies to all cultural creations belonging to a certain space and time. Once stated, this stylistic aspect has generated increasing and assiduous debates, not only among art historians and critics, but also among philosophers

of culture. However, the phenomenon of style demands an explanatory theory. This explanatory theory has gradually appeared, the first explanation, not having the precise consciousness of the wideness of their scope, might be found in German classicism and even more precisely in German romanticism. For example, the great poet Hölderlin, who was also a greater thinker than he is believed to be, in

#### I Do Not Crush the World's Corolla of Wonders

I do not crush the world's corolla of wonders. My mind does not kill the mysteries I meet on my way in flowers, eyes, on lips or in tombs. The light of others strangles the spell of the hidden, impenetrable in depths of darkness, but I, I with my light increase the secret of the worldas the moon with her white rays does not diminish, but shimmering intensifies night's mystery. I do myself enrich the dark horizon with shivers, great shivers of sainted secret, and what's not comprehended becomes even more incomprehensible under my own watchingbecause I love flowers and eyes, and lips and tombs

> attempting a determination of the Greek style (the term was not used with its present meaning), used to speak about the popularity of the 'organic' vs 'inorganic', which approximately correspond to Nietzsche's 'Apollonian' vs. 'Dionysian'. As a matter of fact, this latter pair of terms was also used by the Schlegel brothers in their approach to the Greek phenomenon much before Nietzsche, but certainly not having the same visionary scope as the latter. Nietzsche as well as Simmels, Frobenius and Spengler, and then, more related to artistic phenomena, Alois Riegl, Worringer. Wollflin and many others have tried to offer an explanatory theory of 'style'. As I showed in The Trilogy of Culture, all of them

incline towards visualising 'style' as a 'monolithic' phenomenon, as I call it, and towards reducing it to a single factor, by aspectising it. Frobenius' and Spengler's morphology approaches 'culture' as a unitary stylistic phenomenon, as a result of a soul of the culture, which rises as spatial organism in a certain type of landscape and nowhere else. Culture, style, is supposed to be a parasitic organism,

superimposed on the emotional life of man, and they are supposed to have every characteristic of a genuine organism: it is born, it matures and dies. The life-time of a culture, which has a monadic nature, is, according to Spengler, about 800-1000 years. Each culture or cultural style is dominated by a certain feeling of the space connected to a certain landscape. I thoroughly examined these theories in The Trilogy of Culture, where I also proposed a new explanatory theory of cultural style, a theory which, in our opinion, overcomes all the difficulties, which cannot be stated as referring to the other existing theories. We explain cultural style by means of categories of the unconscious. We had

already pointed out that it is not only our consciousness that has its own series of cognitive "categories" which receives information from the given world. We acknowledge that, beyond these categories of knowledge, about which philosophers have been speaking since Aristotle and especially since Kant, there is a second wide series of categories of the unconscious, categories that we call, because of their depth and to their place, 'abyssal'. There certainly is a correspondence between the categories of conscious knowledge and these abyssal categories of the unconscious, but the latter have a different structure. Acknowledging that our consciousness has, as a form or category of sensibility, 'space' and

'time', we admit that unconsciousness also has its own space and time, only that they have a different structure. To the consciousness expressed in Western culture we assign a category of infinite tridimensional space, while to the unconsciousness expressed in our Romanian culture we assign an undular space. We find a certain temporal form expressed in Western culture, that is, ascendent time, basin-time. as we called it. But as for ancient times, especially with regard to Hellenic culture, we found another shape of time, the waterfall-time. We cannot justify this theory with all the necessary examples, but they can be found in the three volumes of The Trilogy of Culture. There is also in our unconscious, another category apart from space and time, i.e. the formative category, which tends to individualisation, typification or elementarisation. The unconscious also includes the category of 'expansion' or 'withdrawal' from the stylistic horizon. In what he creates, the European, for example, is generally dominated by the category of 'expansion', while the Indian is dominated by the category of 'withdrawal'. But, as I was saying, our unconscious has many heterogeneous categories, all of them converging to create a stylistic universe. All cultural creations, e.g., works of art, metaphysical visions, great scientific theories, mythologies and others, are marked by the existence of these abyssal categories, which are connected, by a para-correspondence, with their respective categories of knowledge which are conscious but differently structured. This is not a new 'categorial' theory because nobody ever thought to establish these categories. This theory has the advantage of explaining, in a more satisfactory manner than others, the multiplicity and variability of the aspects of stylistic phenomena. We do not study 'style' as a monolithic phenomenon but as a complex phenomenon that is sustained by an entire complex of heterogeneous 'abyssal categories', and by a cosmo-genetic synergy. This theory has also the importance of highlighting, for the first time, certain aspect of the unconscious. Beyond its general theoretic advantages, this categorical theory of the basis of stylistic phenomenon provides us the possibility stylistically of examining, for the first time and more thoroughly, our folk culture. My study, The Mioritic Space\*\*, has been a best-seller among all my studies. In that study my point was to demonstrate the existence of a series of abyssal categories, effectively active in our people's creations. Therefore, I discovered in the doina song† the undular space, the same valley/hill horizon which I could distinguish in the sentiment of destiny that is typical of our lyrical poetry which expresses the Romanian way. I pointed out the importance of the 'sophianic' category in our culture and the importance of the descending transcendent, of the 'organic' category for the entire spiritual life of South-Eastern Europeans. I also showed the efficacy of the 'ghostly' or 'elementarising' category in folk art. And so on. I believe this is enough to provide an understanding of the efficacy of our theory of style . . . . . After elaborating the theory of abyssal categories, which I was the only one to have discovered. I had to make this theory of 'culture' and 'style' become part of the metaphysical system which I am working upon. I did this in The Genesis of Metaphor and the Meaning of Culture. In this recent study I worked upon a metaphysical anthropology and a metaphysical theory of the meaning of culture and style. It is the first attempt that has ever been made in philosophy to elaborate a metaphysics of stylis-'Metaphor' phenomena. 'style' are the fundamental aspects of any cultural creation. Any such creation is an attempt by man to reveal mystery to himself. But this revelation, whether realised by artistic, theoretical or visionary creation, always has a metaphorical nature for its consistency, and is made with stylistic co-ordinates and forms. This means that the revelation of the mystery does not have an adequate nature. Not only human knowledge of the ineffable world but also our attempts to reveal mysteries by means of creations are subject to a transcendent The categories that censorship. make the basis of a certain style are given to us as transcendent hindrances. This is how the Great Anonym prevents us from revealing mysteries in a positive way and with accurate adequacy, lest we should attempt to substitute ourselves for him and disturb the cosmic balance. But it also is to our advantage in order to preserve our permanent creative state and protect us from the unknown dangers of absolute revelation. Man has, unlike animals, a specific way of being: it is living within the horizon of mystery, aiming to reveal it. But our revelations are just metaphors of the mystery and their transcendence is limited by the censorship of abyssal categories.

#### Editor's notes:

- \* Given as a lecture at the University of Cluj in 1939.
- \*\* From *Mioritsa*, 'The Ewe-Lamb', the most famous Romanian ballad.

To one who has seen only Bucharest and the level plain of southern Wallachia from there eastwards to the coast, the idea that the Romanian experience of space is structured by the undulation of valley and hill, seems rather strange, as also does the fact that *muntean*, 'highlander', means 'Wallachian'.

- † Melancholy folk ballad.
- From the cathedral of St Sophia in Constantinople.

### LUCIAN BLAGA: SELECTED EXTRACTS\*

### 1. TWO TYPES OF COGNITION

### from Science and Creation (1942), translated by Florin Ionescu

We have presented, in the present essay, some thoughts on the influence the stylistic categories exert upon the theoretical constructs of 'science' and on the guiding of 'observation'. They enable us to take a stand on certain questions pertaining to the problematic of Cognition Theory. To this end it is, however, necessary first to recall some basic ideas of our philosophy.

On several occasions we have dwelt upon the distinction to be made between the modes of existence of the 'human being'. Man lives in two quite different horizons: in the concrete horizon of the sensible world, needed for his selfpreservation; and in a second horizon, of mystery, for uncovering it. The first existential horizon characterises man as any other animal. It is not peculiar to him. It is only through the second existential horizon that man actually becomes a full human being. In other words, existence in the horizon of mystery, for uncovering this mystery, is an essential part of man's definition. That is a first framework that we must constantly keep in mind . . . However, the intrinsic complexity of man's being and consciousness has not yet been fully defined. If consciousness possesses a number of categorical functions organising the data supplied by the senses, we also know that the human being. while implacably established in the fundamental implicate (the horizon of mysteries) and in its corollary (the revelatory tendency), is also endowed with several particular categories (stylistic-abyssal) which guide, as it were, man's revelatory tendency and which, at the same time, help somehow to ensure the immunity of mystery. The stylistic

categories enable any 'revelation' to provide some translucency in respect of mysteries, but they also prevent the 'revelation' from ever becoming a positive and perfectly adequate conversion of the mystery. The stylistic categories take us beyond the sensible data but, at the same time, they prevent a perfectly adequate conversion of the mysteries. In our view, this complexity of implicates and corollaries, of functions and structures, found in the human being, is highly characteristic of this being and, at the same time, forms an indivisible whole After all, the difficulties embarrassing the theorists of cognition arise from those theorists' excessive inclination to simplify and to reduce 'cognition' to one type. Because of these 'theories' and a few similar others, we suggest a distinction between two types of 'cognition', irreducible to each other.

Type I cognition consists in applying categories and concepts to sensible 'data'. The categories employed by this type of cognition may be regarded as inherent in the very structure of intelligence, but their number and even their kinds are not always the same everywhere. In terms of dissemination, the categories have only a rough generality, which means that some are more, and others less, general. It would appear, however, that these categories meet with no difficulty in getting generalised. Here, for this type of cognition, the Kantian categories, or others of the kind, could be, with a certain approximation, taken into account as more or less constituent factors.

To illustrate Type 2 cognition we shall resort, by repetition, to an image that we have already employed. In this type of cognition

one encounters, not only the horizon of the sensible world and categories of the Kantian sort, but, constitutively, also a horizon of mystery and stylistic (abyssal-unconscious) categories shaping the 'theoretical constructions' used in uncovering the mysteries. The abyssal categories are in no way of a general character (as far as man is concerned), and do not even aspire to become general. They are, no doubt, a structural, if variable, inheritance of the human mind. This 'variability', itself more or less marked, does not absolve the human mind from the obligation -naturally unconscious-of serving a stylistic matrix. Never is man's mind deprived of abyssal categories, unless, perhaps, in notoriously abnormal cases.

The second type of cognition is incomparably more complex than the first and, hence, irreducible to it. In fact, the two types appear in relation to the two existential modes characteristic of the human being. The first type relates to man's existence in the sensible, concrete world, and is needed for man's self-preservation; the second type relates to man's existence in the horizon of mystery and is needed for revealing mystery. Between the two types there occurs the quality and complexity leap of an ontological mutation. Science, with its theoretical constructions and with the results of controlled observation, takes shape in its decisive part within Type 3 cognition. Examining the structure of science, Kant, as well as the neo-Kantian schools and every form of positivism, have attempted an abusive, unacceptable simplification of science.

In general the philosophy of science, investigating both the methods and the structure of scientific constructions, seems quite willing to reduce 'science' to Type 1 cognition. Which means an excessive emphasis on the sphere of sensible data as the source of knowledge-an approach imperfectly suited to the scientific spirit and orientations of today or, for that matter, of the past too. Actually, for constituted 'science', in its fullness, the sensible data are only a threshold from which to attempt the leap into mystery; these data must be interpreted in the sense of certain theoretical ideas. 'Interpreting' the sensible data in the light of certain 'theoretical ideas' occurs, ultimately, in accordance with the lines of force of a 'stylistic field'. Thus science places itself, obviously, by its main intentions, by the predominant mass of its corpus of theses, in the sphere of Type 2 Biologico-pragmatic cognition. positivism, of all .shades, understands the constructions of science as if they had emerged in the horizon of the given world as 'useful fictions'. This is an attempt to misinterpret the theoretical constructions of science by analogy with technology and biological organs. Since we distinguish between two mutually irreducible types of cognition, related to the two existential modes of the human being, we can supply a different interpretation of the structure and role of 'science'. In our view, science reaches its supreme dignity not within Type 1 cognition but in Type 2....

In the second type of cognition 'truth' is produced and evaluated by criteria other than those in the first type. The so-called 'truth' achieved by Type 2 cognition bears the mark, or stigma, of the stylistic categories, which one never finds in Type 1. A scientist working in a given 'stylistic field'.' will deem, for instance, 'true' or 'verisimilar' only those theoretical constructions that follow the stylistic lines of his own 'field'. The scientist is, then, guided by a value of 'truth' and 'verisimilitude' emerging as such under the pressure of the lines traversing a stylistic field. Quite naturally, this 'value' and the constructs placed under its auspices have a high degree of instability. The 'theoretical construct' is controlled in Type 2 cognition, no doubt, by a sense of verisimilitude, but this sense is itself always guided by stylistic categories, which are historically and regionally variable.

The difference between the 'truth' value in Type 1 cognition and the 'truth' value in Type 2 cognition is of the same order as the distinction, in aesthetics, between natural beauty and artistic beauty. Just as artistic beauty cannot be reduced to natural beauty, so

'truth 2' cannot be reduced to 'truth 1'. The emergence and evaluation of Type 2 truth' is based essentially on criteria quite other than those in the case of 'Type 1 truth'. The two kinds of so-called 'truth' reached by cognition on the human level are dependent on the two existential orders in which man lives: the order of the given world, on the one hand, and the order of mystery, on the other. The theoretical constructions of science and the results of controlled observations are, in terms of their intimate structure, far too complex for a simplistic, alternative characterisation by means of words like 'illusion', 'fiction' or 'adequate truth'. Certainly, the theoretical constructions of science are 'constructions' but they relate, in their intentionality, to a mystery that they mean us somehow to perceive. The fact that the 'theoretical constructions' of Type 2 cognition are stylistically structured proves that they seriously aspire to transcend the sensible data as such; that they do not manage to convert the mysteries in an absolutely adequate and positive way is due to the circumstance that the 'style' will isolate us from mystery to the extent it also brings us closer to it. This circumstance, equally tragic and consoling, is probably grounded in some ultimate secret design of existence.\*\*

### 2. SOME CLARIFICATIONS ON STYLE

### from Science and Creation (1942), translated by Florin Ionescu

In the present work we bring, under consideration the impact of stylistic factors upon the 'theoretical' constructions of science, and upon other moments and intimate structures which it possesses. Scientific thought too, in the initiatives, pendulations, hesitations, set-backs and advances that it has had to experience in the course of

time, has no doubt construed its own 'values'. These values are placed, if not always, then most often, only within certain stylistic contexts, regionally and historically determined. How has the 'natural world' been viewed, with its temporal-spatial data and phenomena? What 'icons', what 'schemes', what 'theories' have people produced,

through the centuries, about the natural world? These are some questions from which we shall start and which we shall strive to answer. Of greater significance is, then, the question: To what extent the influence of the 'stylistic factors' on these theories, icons and schemes, and on the course followed by the 'observing' mind can

be an object of meditation for a philosophy of science? We shall try to familiarise ourselves with these questions, overcoming them, of course, by conclusions of a more abstract, and strictly philosophical, interest. The material around which we shall develop our considerations-dictated by the situation and by the subject-matter dealt with -will come, therefore, from the history of sciences, which does not mean that we are going to pour our interest into the boundless waters of the 'history' of sciences. We shall reduce the history of science to the

role of a source: it merely supplies material that can be illustrative to the extent of its conclusiveness. By frequenting some often overlooked corners of history we endanger our prospect of enhancing in a novel manner, our understanding of the phenomenon 'science' and of its avatars. The stand-point from which we look at things will open up new prospects for studying in depth the inherent structure of science...

We would like to prevent any misinterpretation of what we have set out to do. The stylistic elements that we are going to study among

several peoples, from the archaic times down to the present, are not meant to be summary expressions of some hazy psychological inclinations, but true modelling functions, of 'categorical' status, pertaining to the unconscious mind. Our interests do not go to matters pertaining to people's psychologies, but to a possible doctrine of 'spirit', which we endow with heterogeneous sets of categorical functions. Such a doctrine, once fully clarified as to its intents, could possibly be known as 'abyssal noology' (nous = mind, abyssal = unconscious).

### 3. ON THE STYLISTIC FIELD

### from Science and Creation (1942), translated by Florin Ionescu

here follows, we believe, clearly enough from the present work and from other writings of ours, that we ascribe a very deep origin to the stylistic factors. We think their place of origin to lie in the 'unconscious' layers of the mind, where they make up, as we suppose, an entire set, an active bundle of forces. The stylistic factors, which we have been dealing with have a 'categorical' status. Hence the name we have given them: 'stylistic categories'. Some of these stylistic categories are in a kind of paracorrespondence with certain categories of consciousness, i.e. with certain categories that help to organise the data supplied by the senses. 'Paracorrespondence' is not exactly 'correspondence'. Paracorrespondence implies that some stylistic categories are somehow reminiscent of certain categories of consciousness, although they actually represent different structures. An example: if consciousness has a categorical function, say, of 'space', which organises the immediate sensory data, we postulate that in the 'unconscious' there is another spatial categorical function, represent-

ing a structure other than that of 'space' as employed by consciousness. While the categories of consciousness are meant primarily to organise the 'data' received through the senses, the stylistic categories relate to the horizon of mystery and are destined to model and guide the human mind's attempts to discover, by theoretical constructions or by controlled observation, its mysteries. The stylistic categories, having their source in the deep unconscious, and being at the same time meant to guide the mystery-revealing capacity, i.e. to lead us towards the hidden depths of existence, may also be called abyssal categories, as if the abyss of mind had intentional references to the abyss of existence generally. Numerically, the abyssal categories are invariably a set, and only together, as a 'bunch', can they form a 'stylistic matrix' capable, as such, of clarifying the stylistic phenomena. The abyssal categories, active within a stylistic matrix, are also considered to be discrete. In other words, they are irreducible to one another and, at the same time, they are variables independent of one another.

In the present essay we have extended the field of application of our concept of the stylistic factors to include also the sphere of creation, pertaining to scientific thought. In this the concept has once more asserted its power of expansion. The incursions we have made into the history of science have been as many opportunities of getting familiar with the modes of scientific thinking. This circumstance causes us to hesitate for a moment and wonder. Would it not be appropriate to attempt to explain our concept of the stylistic factors by resorting to a terminology that lies closer to what is usual in 'the sciences'? We here succumb to this temptation. Such a translation of our concept may actually be not a mere translation but also a source of new suggestions.

We have, then, agreed to ascribe to the abyssal categories a role of modelling and guiding 'forces'. But if all these categories are a sort of forces, one could say that, owing to the factors which emit their modelling, guiding energy from the 'unconscious', the conscious mind is made to 'create' in a 'field of forces'. Let us call this symbolic-

imaginary space, in which the conscious mind operates under the influence and domination of the stylistic categories, a 'stylistic field'. The term seems quite appropriate for use in this purely spiritual domain as well. In the 'physical' sphere one speaks of 'magnetic fields' run through by lines of force, or of electric fields charged with 'tensions'. Maintaining the lucid distinction that should be made between the spiritual sphere and the physical, the 'field' image assumes suggestive and illustrative values that no one would readily dispense with. A 'stylistic field' can be imagined as run through by very heterogeneous determining lines, as a highly complex space, in keeping with our concept of the multiplicity and irreducible diversity of the 'abyssal categories'.

The theoretical constructions of the mind, aimed at uncovering some mystery, make up—to use the terms agreed on—a stylistic field in that they undergo modelling by the various lines of force that traverse this field. But this proposition is valid not only in relation to the theoretical constructions of the mind: it concerns also the results of controlled observation. Indeed, any 'controlled observation' that the mind undertakes with a view to discovering mysteries is also contained, invariably, within a stylistic

field and is essentially guided by the lines of force to which we have compared our abyssal categories. Whenever Logic and Cognition Theory have endeavoured to look into the modes used by 'science' in its 'theoretical' and 'observational' approaches, or in its processes of ideational elaboration, it was deemed necessary to emphasise some allegedly exhaustive procedures of 'science'. Thus, stress has been laid alternately on rational deduction and its syllogistic models, on empirical induction, or on a 'miraculous' intuition which, by a special leap, can acquire ideas destined to guide the course of research. At times, counselled by common sense, logicians and cognition theorists have found that deduction, induction and intuition participate, with their several, equally necessary contributions, in the formation of 'science'. At one time it was noticed that science as such also has some structural articulations which cannot be regarded as arising from the. aforementioned procedures. The structure of science presupposes some implicates, which are blended with its organism, though somehow outside conscious procedures, as it were. These are such structures as result from the previous organisation of sensitive matter by means of various categorical concepts. (Kant

considered these structures to be necessarily related to the being of science; other theorists have accepted, at most, the transient usefulness of these 'categories'.) Having emphasised sufficiently the significance of categorial concepts and of empirical, deductive, inductive and intuitive methods for the constitution of science, it is now necessary to introduce the concept of 'stylistic field' into Logic and Cognition Theory also. This would help to show to what extent the theoretical constructions of 'science' (and the results of controlled observation) depend on the specific nature of the 'stylistic field', where scientific thought always lies, without realising it. What effective powers the 'stylistic field' actually possesses, has been variously demonstrated in this essay. The history of science, like the history of philosophy, is full of conclusive evidence to the effect that even mere 'argumentation', which aspires to be strictly logical, will quite often appear altered, in its innermost mechanisms, by some 'stylistic field'. In fact, it is only through such 'alternations' that argumentation can, always, take a creative turn, for if it withdrew into a strictly syllogistic approach,, it would never escape from the sterile circle of tautology.

### 4. THE STYLISTIC MATRIX

### from Horizon and Style (1936) translated by Anda Teodorescu

The stylistic matrix is an unconscious complex yet it does not operate inside the unconscious. The farthest concentric layers of its signification reach out into the conscious areas of our psyche. In other words, 'the stylistic matrix' is one of those complicated, secret instances or mechanisms through which the unconscious works upon the consciousness without the latter being aware of it.

The stylistic matrix, as we conceive it, may be considered the permanent substratum of an individual's life-long creation; in its essential elements the stylistic matrix is similar—to the point of being identical—in several individuals, in a whole people or even in a part of mankind in the same age. It is only the existence of an unconscious stylistic matrix that can explain such striking a phenomenon as the stylistic consist-

ency of certain creations. 'Stylistic unity' is sometimes of a miraculous purity; that is. miraculous if we consider the psychological conditions in which it appears and which are inconsistent, uncertain, nonlinear, kaleidoscopic and mixed. Emotions and problems, upsurges and doubts, passions and hesitations, all that mass of aleatory impulses and random projects of individual consciousnesses would only form a puzzling, incoherent

picture unless a solid armature, a 'stylistic matrix', were not set under them and beyond them; its patterns influence, first of all, the stylistic structure of artistic, metaphysical and cultural creations.

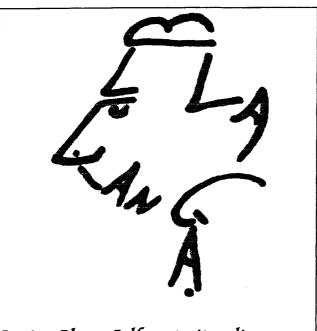
The stability of these patterns is indeed superlative. It is not an exaggeration, we believe, to say that such a stylistic matrix, once established in the unconscious, can stand-unaltered-any attack of the conscious. Let, us suppose, for instance, that, in certain circumstances, consciousness chooses a course which no longer corresponds to the unconscious patterns consoli-

dated in a stylistic matrix. By attentively investigating such cases, I have come to the conclusion that the unconscious stylistic matrix does not suffer too much as a result of such conscious deviations. One might therefore imagine the following situation: an author deliberately chooses to follow and obey directions completely opposed to those upon which he is unconsciously fixated. The unconscious 'stylistic matrix' will continue to hallmark his creation, placing his consciousness-already turned towards other horizons, other attitudes, other accents—in front of a fait accompli, as it were. The constraints and the decisions

of the consciousness have no power beyond the latter's limits and frontier while unconscious patterns can be readily projected into the consciousness as well directly or in disguised form . . . .

As a rule, the unconscious stylistic matrix resists any form of conscious criticism with the stubborn-

ness of an organic defect. Most great poets still conceive their creations in an archaic, magic or mythical mode no matter how convinced they may be that in ascending to the high plateaux of consciousness they have left all such nonsense behind. When writing the psychological biography of a personality, one must always keep in mind this two-storied structure with its immanent play of perspectives. Specially to be remembered is the fact that the unconscious is infinitely less susceptible to change than the conscious. The unconscious is conservative by definition. Most often



Lucian Blaga: Self-portrait, caligramme

the unconscious succeeds in remaining identical to itself in its subterranean bed in spite of the lucid and critical thrashings about of the consciousness.

The stylistic matrix, though a spiritual reality in its own right, stands towards the consciousness in the relation in which atoms stand towards chemical methods: no matter how chemically complex, atoms cannot be altered in their structure by any chemical method. The stylistic matrix can be seen as a general concept about which theoretical speculations can be made in various fruitful ways. The stylistic matrix is made up of the following elements:

- 1. The spatial horizon (the infinite, space-as-cupola, flat space, Mioritic† space, alveolate-sequential space).
- 2. The temporal horizon (timetime-as-water-fall. as-fountain, time-as-stream).
- 3. Axiological touches (affirmative and negative.
  - 4. Anabasic and catabasic elements (or the neutral attitude).
  - 5. The formative impulse (the individual, the typical, the elemental).

'The stylistic matrix' is like a packet of categories unconsciously fed into all human creations and even into human life, since the latter can be moulded by the spirit too. In its categorical capacity, the stylistic matrix imprinted, with modelling effects, upon works of art, metaphysical conceptions. scientific doctrines and theories, upon ethical and social conceptions. In this respect let us recall the fact that our 'world' is modelled not only

by the categories of the conscious, but also by other categories, whose dwelling place is the unconscious. Man's creative horizon, in relation to 'the world', is not simple as Kant and his followers believed, but multiple, or at least two-layered. 'Our world', therefore, tastes of human spontaneity with exponential intensity.

### 5. THE GENESIS OF METAPHOR

### from The Genesis of Metaphor and the Meaning of Culture (1937)

### translated by Anda Teodorescu

The 'style' of a work of art or of a cultural creation evinces many aspects of which some at least have a certain depth and a 'Categorical' sense. The latter are of a horizontal nature, of an axiological atmosphere, of orientation, of form. We have dealt with this side of the creation of art or culture

in Horizon and Style. What else we have to say along the same line of thought will come later, the more so as many surprises still lie in store for us; some of these are very important for philosophy in general and others have a deep going, metaphysical significance. Yet, before we dispel the mists which are the abode of such surprises, let us extend our remarks upon another aspect of creation. Obviously, stylistic elements do not exhaust creation. A work of art and a creation of culture in general possesses 'substance' as well as style. For the moment we shall have to leave out the kind of style which is clothed by the substance and ask ourselves which are the characteristics of the substance itself, in its most general aspects. The substance of a work of art, of a cultural creation includes everything

that is matter, sensuous element or content, an anecdote or an idea, no matter whether it is concrete or abstract, tangible or sublimated. Let us anticipate: unlike the substance of real things in the universe of the senses, the substance of creation has no signification and no meaning in itself: here substance always stands for something else; here substance is a precipitate which

implies a transfer and a yoking of terms belonging to different spheres or domains. In this way the substance acquires a 'metaphorical' aspect.

This remark may cause many eyebrows to rise. The reader will probably shrug and ask: 'all right, but isn't metaphor part of the style

Light

Is not the light that floods my heart when I look at you a speck of the light made on the first day from light thirsting deep for life?

Nothingness lay in agony When all alone drifting through the dark the Unfathomed gave a sign: 'Let there be light!'

An ocean and wild storm of light straightway was made: a thirst for sin, desire, elan and passion, a thirst for world and sun.

The blinding iight that was, where has it disappeared? Who knows? The light I feel flooding my breast when I look at you—wonderful one—is maybe the last speck of light made on the first day.

itself? Isn't the chapter on metaphor one of the most important in all text books of 'stylistics' ever come out of the printing presses everywhere in the world?' The question is psychologically justified, but its being raised is due only to a widespread preconception. In what follows we shall try to defend the other way of looking at things.

Before extending the significance of 'the metaphorical', let us analyse metaphors in the usual sense of the word. We shall limit ourselves to linguistic metaphors. There are two types or two large groups of such metaphors:

- 1. Manufactory metaphors
- 2. Revelatory metaphors .

Manufactory metaphors are produced by putting together two more or less similar facts, both belonging to the given, imagined, experienced or apprehended world . . . .

As we said at the beginning, there is yet another type of metaphor, 'the revelatory metaphors'. While the first type of metaphor does not increase the signification of the objects it refers to, but only reshapes their direct expression, the word as such, the second type of metaphor increases the signification of the very objects they refer to. Revelatory metaphors bring to light something hidden, something concerning the very facts they concentrate upon. Revelatory metaphors try, in fact, to reveal a 'mystery' by the means put at our disposal by the concrete world, by the experience of the senses and by the imaginary world . . .

Revelatory metaphors result from the specifically human mode of existing, from existence within the horizon of mystery and revelation. Revelatory metaphors are the first symptoms of this specific mode of existence. We do not idealise the situation when we say that revelatory metaphors also testify to the existence of an anthropological level, a deep level given to man together with his being. As

long as man (not yet a full 'Man') lives outside mystery without being aware of it, in an undisturbed state of Edenic-animal harmony with himself and the world, he uses

manufactory metaphors as the only ones required to solve the discrepancy between the concrete and the abstract. Revelatory metaphors are used when man becomes 'Man' indeed, that is the moment he places himself within the horizon and the scope of mystery.

### 7. THE UNIQUENESS OF MAN

### from The Genesis of Metaphor and the Meaning of Culture (1937)

### translated by Anda Teodorescu

et us now see what perspectives are offered by the philosophy presented in our lectures. Undoubtedly, the animal, as an individual in which a sort of consciousness flickers exists visibly bound to 'the immediate'. Animal consciousness does not leave the realm and the shapes of the concrete. In animal behaviour everything that seems to go beyond the immediate is due to the finalistic workings of life as such and is integrated in a sort of anonymous stream gushing forth into the 'species'. We can therefore safely assume that the world of the animal-individual (the latter understood as a nucleus of consciousness), is organized like man's world, within some functional frameworks (in conformity with certain a priori conditions) which may vary from one species to another. Seen in this light, human intelligence is probably characterised only by a more marked complexity; the difference is therefore one of degree. On the other band, the animal is completely alien to 'the existence through mystery and for revelation' to the dimension and complications which result from this mode of existence. Existence through mystery and revelation is an exclusively human mode. What is specifically human is, accordingly, the whole train of consequences which derive from this mode, namely man's creative destiny, its impulses, mechanisms and limitations. An animal may produce tools, shelters, organised structures; its acts do not

stem from the conscious existence through mystery and revelation; its acts are not 'creative'; they are stereotypes born out of its concern for security for itself and especially for its species. Existence through immediacy and for safety is of course a mode which the consciousness of no animal can surpass and in this category we include both inferior animals as well as those much praised for the superiority of their intelligence or instincts. Yet, how entirely different is man! Man is entrapped by his creative destiny in a marvellous way; for this destiny, man is capable of casting off-even at the risk of self-destruction—the advantages of equilibrium and the joys of safety. What an animal may happen to produce-hiding places or organisational structures, for instance -may be exclusively understood as a result of its vital needs. Its productions correct or compensate the vicissitudes of the environment and ensure the animal's existence in an environment otherwise unsatisfactory from many points of view; the respective productions have no revelatory-metaphoric character nor any stylistic aspects; they are not genuine 'creations'; they never form a world apart and do not require to be judged according to norms immanent in themselves as is the case of all man's cultural creations. Cultural creations can be and are judged according to immanent norms, according to rules whose bases are in a sense interwoven with man's creative destiny and

geared to it. Saying this, we have in mind man's abyssal categories, that is, those deep-level categories of the unconscious which form 'the stylistic matrix'. If we agree that the animal is endowed with immediate cognition, we can safely assume that it has certain functions needed for organising its world, that is, a sort of 'intellectual category'. Yet, by all tokens, we cannot ascribe abyssal categories to animals. The psychological structure of the animal—the cognisant and the maker-is not made up of double, two-range categorical sets but at best, of a one-range set which is that of the categories of concrete cognition. The animal may produce shapes and implements but these shapes have not been generated by a matrix of abyssal categories but by some vital need, and are built through repetition, stereotypically, by instinct; they are always the same. The animal does not produce in order to reveal a mystery, but purely and simply in order to secure his own existence and that of the species. One can assert that the animal, as a species, may be the author of a 'civilisation'. The students of the complicated ways and habits of the ants and bees give us surprising details which are indeed amazing. Still, this animal civilisation is in many ways different from human civilisation. The state organisation of ants or bees is marvellous indeed, but at a closer look one notices that its bases are far less complex than the analogous human structures. With the ants and

the bees it is only a question of a prudential existence through the immediate, of an emanation of the vital needs, and of concern for the safety of the group. In the human order, state organisation and its structures somehow go beyond this goal and, at least indirectly, bear the stamp of man's creative destiny beyond man's pure instinct of selfpreservation and criteria for safety. The human state, the same as all products of civilisation, bears the stamp of abyssal categories like some kind of stylistic stigmata. That is why the forms of man's state organisation are so varied and change so often in history. They indirectly reflect 'the stylistic matrix' of the human group to which they belong. Animal civilisation, unlike the human one, is 'nonstylistic' and 'non-temporal', that is non-historical, that is non-creative. Unlike the animal, man does not exist only through the immediate and for safety but at another level as well; he lives through mystery and revelation. It is therefore man alone that has a creative destiny which modifies and even changes biological laws. The significance and the implications of this destiny on an ontological, psychological and metaphysical plane have been discussed in other chapters which would enable us to dispense with repetitions. Yet, let it be said once again: before he could become 'Man', man suffered not only a mutation of biological structures but also an ontological mutation. In an inexplicable biological outburst, a new unique mode of existence declared itself in man: existence within the scope of mystery and for revelation. This mode makes man totally different from the rest of the animal world. From the metaphysical point of view, one more thing ought to be added: man 'creates' in order to reveal a mystery; his creative act goes beyond the immediate but is limited by the 'transcendental brakes'. These are metaphysical aspects which can in no way be attributed to the animal, who, at best produces in order to correct or compensate the imperfections of the environment to the extent required by the need of self-preservation. The animal is fully characterised by the following features:

- 1. It exists exclusively through the immediate and for safety
- 2. It knows the concrete world in its own way.
- The animal can be attributed certain cognitive categories in the functional sense.
- The animal can produce civilisation but it is a non-stylistic stereotype, a non-temporal one.

Unlike the animal, man is characterised by the following features:

- 1. Man does not exclusively exist through the immediate and for safety, but within the scope of the mystery and for revelation too.
- Man is endowed with a culturecreating destiny (the culture is metaphoric and stylistic).
- Man is endowed not only with cognitive categories like the animal, but with abyssal categories as well.
- 4. Man has the possibility not only of 'manufacturing', but also of 'creating' a civilisation, variable in stylistic and historical terms.

Let us admit that the species of beings on the earth appeared indeed as a result of evolution and especially by biological mutation. If we make a concession to the mythical approach, the result can also be formulated as follows: both animals and man are, as 'species', objects of creative acts (biological mutations) but it is man alone who is also a creative subject (as a result of ontological mutations). With man something completely new appeared in nature. With man 'the creative subject' in the full meaning of the term appeared in the universe. This could mean that man

stops being an object or material for a new biological creation. The fact that man has become man, that is creative subject, thanks to a decisive ontological mutation, could, of course, signify that man finalised evolution which works through biological mutation; it could therefore mean that no superior biological species is possible beyond him. This proposition could be also formulated as a question which deserves not only to be asked, but also to be thoroughly considered. In any case, Nietzsche's biological conception about the superman as a possibility for evolution in the future was too hastily constructed without taking into account man's qualitative singularity and his exceptional position in nature. If man were simply an object, a bridge or a material for new biological creation (man-superman) we do not see why man should manifest himself so fully and vigorously as a subject with a creative destiny, taking upon himself great and tragic risks and renouncing even his natural equilibrium and safety. The fact that man is such a subject seems to be rather an argument that biological evolution was finalised in man. No new and higher biological type can come out of man. Man is an end: in him the potentialities of biological mutations have been extinguished because they were completely realised and because he suffered a decisive ontological mutation which left behind all the other species.

### Editor's notes:

- \* Reprinted with permission from *The Romanian Review*, 1985.
- \*\* A reference to the 'Great Anonym' and his 'transcendent censorship': see above pp.109-10.
- † From the folk-ballad, Mioritsa.

#### LUCIAN BLAGA: TYPES OF TRUTH

### Calina Mare

ucian Blaga (1895-1961) was one of the most important Romanian philosophers of the middle of the 20th century. He belonged to a generation of very gifted Transylvanians, who went to study abroad in the greatest cultural capitals of Western Europe seeking to contribute to Romanian culture as original philosophers and teachers. Among them, Blaga was primarily attracted to German culture in general and its philosophy in particular. In a fertile dialogue principally with different creative personalities of the German culture, he developed a unique philosophical system.

Blaga was not only an original philosopher, but also a great poet. As a result, his philosophical works were written in a metaphorical language, while his poems were permeated with 'high' and 'deep' philosophical meditations. The poetical and philosophical atmosphere of Blaga's work as a whole was dominated by the theme of Mystery and the need to immerse oneself into the depths of Mystery.

Blaga's domains of interest incorporated poetry and metaphysics along with visual arts and sciences. Noteworthy was his interest in mathematics, physics and biology, as well as his special capacity to 'feel' the real novelties in these fields of human endeavour and to understand the direction of their evolution.

\* \* \*

That short preamble was necessary for the discussion that follows on Blaga's ideas about truth. Truth represented a central theme in his global philosophical system, a leitmotif throughout the entire body of Blagian work. In his *Trilogy of Culture* (1937), Blaga made a dis-

tinction among three types of truth: ideal truth, natural truth and constructive truth or truth-construction.

According to Blaga, ideal truth represented perfect correspondence between idea and reality. Such perfect correspondence might be achieved through direct total and certain access to 'reality in itself' and would ultimately lead to an objective and perfect copy of 'reality in itself'. However, this type of truth remained a simple postulate because he contended that it is impossible for human beings to achieve the conditions of directness, globality and certitude which are all necessary in order to ensure the absolute objectivity of truth.

Two types of truth were seen by Blaga as accessible to human beings: natural truth and constructive truth or truth-construction.

Natural truth is the product of a horizontal type of knowledge named by Blaga 'Paradisiac Knowledge'. Human beings achieve truth through rather simple cognitive processes, by organizing their direct, perceptual, factual experience by means of cognitive categories. Natural truth, which is limited to the surface of things, was considered by Lucian Blaga an inferior of truth because of its simplicity and horizontality.

Constructive truth is the product of a vertical type of knowledge, named by Lucian Blaga 'Luciferian Knowledge'. This type of knowledge is characterized by problematisations, hesitancies, incertitudes and a vast number of creative visions. Luciferian knowledge offers the possibility of achieving deeper truths because it depends on the stylistical abyssal categories of the collective unconscious. The abyssal categories have their own internal structure, a stylistical matrix which, varying in space and

time, eventually determines variations and differences among the truths of various cultural groups. Thus, constructive truth or truth-construction is considered by Blaga to be more complex and superior to natural truth.

Blaga was convinced that he enlarged previously formulated epistemological problems and solutions through the distinction he created between natural truth and constructive truth. Specifically, he believed Kantian solutions to pertain to natural truth. According to Blaga, Kantian solutions were insufficient to understand the relativity of truths. That is, the variability of truths in time, as well as in space, extension and depth. Blaga developed a pluralistic theory of truth, in which he considered a number of different criteria ranging between two extremes, i.e., total correspondence to reality and rejection of any reference to reality. He emphasised the multitude of possible correlations between objective and subjective factors, not only at the level of individual, but also at the level of the general human or group inter-subjectivities.

To re-iterate, truth as perfect, objective, absolute correspondence with reality was viewed by Blaga as an ideal which was impossible to be achieved by human beings. The only truth that could be achieved by human beings was always relative, limited, incomplete. This was the case for both natural and constructive truth, including the metaphysical constructions which claimed access to existential wholeness.

In his later works, particularly those written between 1947-1953, Blaga did not maintain the radical opposition between Paradisiac and Luciferian cognitions. He achieved an interesting interweaving between the two, arriving at more nuanced and profound solutions regarding metaphysical truths (On Philosophical Consciousness, 1946-47), and scientific truths (Anthropological Aspects, 1947-48; Experiment and the Mathematical Spirit, 1949-1953). Furthermore, through novel procedures of rationalisation, he arrived at the notion of a global truth which encompassed both natural and constructive truths.

Blaga believed that European science through modern times achieved scientific truth as natural truth by means of empirical criteria of verification. However, he suggested that, due to the rise and progress of Galileo-Newtonian science during the 17th and 18th centuries, more complex and elaborated criteria for the verification of

scientific truth were necessary. Specifically, mathematics became an indispensable component of Galilean-Newtonian science. In order to describe the pervasiveness of mathematics in the Galileo-Newtonian scientific thought and method, Blaga proposed the construct of 'methodological couples', of which mathematics was one of two elements (e.g., mathematics and observation, mathematics and experiment, mathematics and laws, mathematics and theory, etc.). Blaga described the complex system relationship among these methodo-

logical couples as one of reciprocal control, all being subordinated to and further controlled by a supermethod. The implication was that Galilean-Newtonian science required the interweaving of empirical and theoretical criteria for the verification of scientific truth. Thus, the achievement of Galilean-Newtonian scientific truth was possible only by moving beyond natural truth toward the transempirical domain of mediated physical reality.

For Blaga, the evolution of scientific truths consisted of a pro-

gressive incorporation of elements of Luciferian cognition, such as relativisation. problematisations, etc. In his discussion of the interweaving of empirical and theoretical criteria. Blaga emphasised the globality of these criteria and persuasively underscored the increasing role played by theory in the verification of scientific truth. As examples of the increasing role played by theory in science, Blaga cited the theory of relativity and quantum mechanics. Furthermore, Blaga considered that theory was incorporated in all experimental instruments of quantum mechanics. Using his metaphorical language, Blaga described the experimental instruments of quantum mechanics as 'frozen experiments' and 'frozen theories'.

#### The Shiver

Is this death then at my bedside?
In the dead of night,
when the moon directs her blank look at me,
when flights of bats
kiss the brow of darkness at my window pane,
I sometimes feel a shiver
run my body from top to toe
as if cold hands
with fingers of ice were playing in my hair.

Is this death then at my bedside? And in the moonlight is she counting my grey hairs?

He thought that scientific truth is always dependent on the historical context in which it is formulated, that it is relative, approximate and loaded with uncertainties. According to Blaga, contemporary science has moved far beyond the horizontal approach to knowledge and far beyond the surface of things. As contemporary science continues to incorporate the verticality of Luciferian cognition, it achieves new levels of understanding of the deep processes of existence, resulting in the deepening of

the knowledge of transempirical physical reality.

In the field of metaphysical constructions, Lucian Blaga formulated two criteria for the evaluation of truth: immanence and comparison. The criterion of immanence (very important in fathoming the creative forces of the constructors of metaphysical systems) highlighted the coherence and the selfconsistency of the inner harmony of the metaphysical system. The comparative criterion correlated the ideas of the metaphysical constructions to their reception. Blaga believed that there was a transcendence to be revealed and that the metaphysician-constructor was capable of finding the gates opening on transcendence. He nurtured the conviction that great metaphysical

> constructions gained recognition when they were accepted by large groups of individuals.

> Lucian Blaga achieved his aim to contribute, as an original Romanian philosopher, to the great creative symphony of humanity. His theory of truth outlined the idea of the plurality of truths in all areas of human existence.

This paper has underlined Blaga's ability to incorporate in his work the cultural novelties of his time (e.g. Jung's theory of the collective unconscious, of archetypes). He was a forerunner of contem-

porary scientific and philosophical thought through his intuition regarding the interweaving of various scientific methods and domains, which is close to the notions of inter- and pluri-disciplinarity in contemporary epistemology. Furthermore, he understood avant la lettre the evolution of scientific truth as an interweaving between natural and constructive truths in which constructive aspects prevail.

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### THE ESSENTIAL CATEGORY OF SPACE\*

### Angela Botez

lthough space and time are the main categories of human exlistence, it is seldom that man wonders about their meaning, considering them given and selfevident. But philosophers have often dealt with space and time, especially at the end of the 20th century. In some opinions, space is a more important dimension of the distinction between object and subject than time, because, while the exit from time may be imagined, existence outside space cannot even be conceived of, and the definition of any altered state requires space as essential. The historical series of philosophical approaches to space starts in antiquity with the idea that geometry is the prerequisite of any cognition, because it separates through space the object from the subject of knowledge; it is continued with many other attempts, typical to various ages; and it reaches a crucial moment when the confrontation between the positions of English Empiricists (Locke and Human) and Kant takes place, positions that try to substantiate spatial determinations experimentally and transcendentally, respectively. Later on, the morphology of culture school (Spengler, Frobenius), English Realism and neo-Realism (Spencer, Whitehead), Heidegger, and Existentialism, Bachelard, Ricoeur and Hermeneutics and genetic Epistemology (Piaget), Wittengstein, new Pragmatism and post-Modernism, have all tried to investigate the genesis of space (and time) from the perspective of the apparition and existence, in the Universe, of a new ontological modality-the human spirit. Throughout the history of philosophy there has also existed a rational interpretation of space, initiated by Leibniz and Descartes and developed by Mach and Einstein.

Lucian Blaga is one of the Romanian philosophers for whom space has been an essential category which he especially investigated in a original manner, giving it a double existence both at the level of a Kantian category and at that of an *a priori* abyssal stylistics which organises the unconscious.

We shall seek to point out aspects of Blaga's interpretation that make it original with respect to Kant and the philosophers of the morphology of culture, as well as those aspects that make it comparable with the most recent holistic and post-modernist approaches to space and the spatialisation of time. Approaches (9) such as those set forth since the '70s by C. Bell, M. Berman, F. Jameson, F. Guattari, G. Deleuze, D. Harvey and others, explicitly declare their origins in the works of philosophers that have treated space in ways similar to Blaga's, such as Wittgenstein, Heidegger, Merleau-Ponty, Piaget and Polanyi.

All the mentioned philosophers, as well as Blaga, have departed from the modernist philosophical paradigm, which treats space in the Cartesian-Kantian-analytical manner, and have revived the ideas of Hegel, Hartmann, Spencer, Nietzsche and Spengler. One of the most important approaches to be considered in the interpretation of Blaga's work is that of Wittgenstein (7). There are two types language, he claims: the language of visual and of Euclidian space, hence the difference between the words 'seems' and 'is'. For instance, we are accustomed to say: two distances in the visual space seem equal although they are not, or a very small arc of a circle seems straight, although it is not. The new element that appears in the case of visual space is the indetermination, which is absent in

Euclidian geometrical space. This is produced, claims Wittgenstein, by a syntax of indetermination which operates with the problem of the sign, and not with truth or falsehood (as Euclidian space does). The terms 'objective' and 'subjective' are correlative, but only in the language of objective space, in connection with which we may speak about visual space and its subjectivity. Wittgenstein thinks it is wrong to believe that visual space or the data of the senses are new entities, which we discover when inquiring about what is psychologically real. Through the use of psychological language in philosophy the myth of interiority was born, thinks Wittgenstein. Mental experiments cannot give a view of phenomena, but only of the conditions of possibility for phenomena, such as space and time. When we analyse the vocabulary of psychological states and processes, we may see that it implies unusual assumptions. In this case, the reference is always private, inaccessible and non-transmissible. While criticising mentalism, Wittgenstein does not deny the particularity of mental processes, but claims that there cannot be a language that would express it, because that would have to be the language of a single person. The logic of language cannot be described because of its complexity, but only rules similar to those of the game of chess may be noticed, rules that determine language games.

In Blaga's view of the spatial categorial dyad we shall find the same underlining of the philosophical, and not psychological, character of the problem of space, the same division on two levels of the hierarchy in the spatial perspective, the same discovery of the relationship between internality, determination and indetermination, constancy

and variability, objectivity and subjectivity with respect to the categorical concepts of space. It even seems that Blaga's reversal of the relation of the determinate to the indeterminate in connection with the relation of the constant to the variable, is bound to shed new light on the relation of relativism to realism in the theory of knowledge.

In his work, Differentiale divine (The Divine Differentials, 1940) Blaga wrote that the organisation of

space is a metaphysical problem, unavoidable within cosmology. This problem has been considered from the physical-mathematical and epistemological points of view. The theory of knowledge has regarded space in two ways: that of naive realism (scientific realism) -space has a real existence of which we can become aware through an adequate intuition; and of idealist philosophy—space is the subjective form of the sensibility and imagination of the knowing self, a prerequisite of the system of knowledge. In Lucian Blaga's view, space is a perspectival, variable and sensible intuition, but at the same time it is a constant of human sensibility. Therefore it is not an unaccountable product of the human subject, but an act of censural cognition. Mankind possesses many spatial views which are active in human subjects producing culture as abyssal functions or categories. These

come from the mystery-space and they censor its reach. About space 'we feel invited to try a metaphysical theory about the structure and genesis of this existence that has its own secrets, like any other existence'. But, in a modernist, relativist manner, Blaga observes, in *Stiinti si creatie* (*Science and Creation*, 1942), that metaphysics should discard any aspiration to necessity and unity. Because no metaphysical theory is compulsory, the question

of the objectivity or subjectivity of categories (including the spatial one) will be reconsidered from the beginning by every metaphysician (2, p.186).

Among the numerous interpretative dichotomies, the one regarding the constancy and universality of space and time in relation with their variability depending on historical contingencies, claims Blaga, is especially visible at the level of general philosophy in contradiction

#### The Oak

In clear distances I hear in a tower a bell beating like a heart and in sweet echoes it seems to me that my veins carry drops of silence, not blood.

You, oak, at the forest's edge, why should I be defeated by so much peace with its soft wings lying in your shade cuddled by your playful leaf?

O, who knows?—From your trunk they might soon cut my coffin and even now I seem to feel the peace that I taste between its boards: I feel it dripping into my soul by your leaf—and dumb

I listen to the coffin in your body growing, my coffin, with each growing movement you, oak at the forest's edge.

to the Kantian view that the main perspective that endorses the universal, absolutely constant a priori character of spatial and temporal forms of intuition with the positions of Mach and Nietzsche, that do not accept this character. To Mach, time and space are not absolute structures but superstructures of certain biological reactions, the means of sensorial orientation by which man saves energy, and to Nietzsche they are descended from

regions of complex psychology, full of contingencies, deprived of any necessity. In the philosophy of culture the same dichotomy appears between the standpoint of the advocates of morphological theories of culture (Spengler and Frobenius) and the Kantian view on space and time. The Morphology of culture, therefore, regards the intuition of space as a dominant factor, exclusively determining and symbolic of a culture and a style, as a variable

creative act of conscious sensibility. By regarding the intuition of space as conscious, notes Blaga, the morphology of culture is Kantian, but it breaks the rule of invariability and thus becomes vulnerable to the many criticisms against it. As an intuitive environment of sensible objects, space, depending on geometrical location, includes, in the morphological approach, only the structure and configuration of the landscape, defining a certain style. Numerous contrary examples, among them the plurality of cultures within the same space, contradict these theories, but the 'taste for location' that they have noted remains valid. It is indeed active in the various primary spatial horizons of human creation. It has been claimed that such considerations can have no relevance. However, by defining specific spatial (corpuscular finite, three-dimensional infinite, absolute infinite, relative infinite) and temporal (cyclicity, oscilla-

tion, relativity) horizon, Blaga has introduced a sort of hidden parameter, a sort of invariant, that transform the visible complexity of cultural phenomena into an intelligible, simplified and invisible one. Blaga looked for certain structural spatial and temporal regularities within appearances of an overwhelming complexity and succeeded in clearly distinguishing a few types of stylistic spheres in Sumerian and Babylonian, Greek,

Indian, Arabic and European cultures, characterized by models of scientific thinking, of constructive ideas and guided observation, and even typical false problems.

Being elaborated at the meeting point of philosophy of culture and the history and philosophy of science with other disciplines, such as ontology, psychology, anthropology or semiotics, Blaga's outlook on the role of space and time in the stylistic sphere of creation adopts the idea of the advocates of morphology of culture, that the spatial horizon is variable (within this horizon a whole culture, including art, religion, philosophy and science, is elaborated), but brings it to a new position, more philosophically acceptable. Subconscious matrices that direct the functioning of thinking are regarded as a priori structures of the human spirit, as sub-rational factors of spontaneity. There is no longer an absolute determination through a single factor, but a whole range of variable stylistic categories that act together with ecumenical Kantian categories and constitute a second censorship of scientific creation at the spatialtemporal, behavioural and formative levels.

The idea of spatial-temporality as a specific horizon, that Blaga has illustrated with the idea and materials in Trilogia valorilor (The Trilogy of Values), is defined as a stylistic matrix, therefore in a more general manner, in Trilogia culturii (The Trilogy of Culture). This matrix, a set of categories that are unconsciously built into every human creation, leaves its mark on works of art, on metaphysical theories, on scientific views and systems, on social and ethical ideas. The common creative basis, notes Blaga, is not simple in relation to the world, as Kant and his followers claimed, but multiple, or at least double. 'Therefore our world feeds on human spontaneity with an exponential intensity'. In criticising the theory of spatial symbolism and of the soul of culture, Blaga moves the problem of style from the

sphere of psychology and morphology into that of philosophy, as Heidegger and Wittgenstein had claimed.

In the chapter 'Culture and space' Blaga explicitly states that:

submitting to a critical examination both Kant's theory and the morphological theory, we can find enough reason: to accuse both of them of a certain embryonic non-specificity . . . How about our own theory of horizon dyads? There is a spatial horizon of conscious sensibility as a constant of humanity that represents a number of indeterminations, and another one structured like a variable depending on various historical and geographical communities. These two terms of the dyad are heterogeneous both in content and in function. Our theory manages in fact to comment in a single thesis the two conflicting stand-points and to surpass them' (3, pp. 139-140).

The Romanian philosopher manages this thing because he introduces the heterogeneity of the two levels of the theory of cognition and the philosophy of culture. These are important fields for the matter of space, also noted and commented upon by Foucault, Lyotard, Guattari, who, like Blaga, think that at the unconscious level there are organised matters and structures, heterogeneous to the order of consciousness, but which exist in and permeate creation. Constantin Noica noted that the most remarkable idea of the 20th century (he thought it rather wanting in spirit) is that of the existence of a certain order of the subconscious, essentially enhanced by Blaga's categorial dyads and stylistic apriority.

The theory of horizon dyads, present in *The Trilogy of Culture*, claims the existence of the spatial and temporal perspective within the spirit both at the conscious and unconscious levels. The horizon of sensibility does not express the nature of consciousness, but is the unavoidable framework of its objects. But the spatial and temporal horizon belongs structurally to this

framework. Any change of the framework induces a change in the nature of spirit, because of an organic link between the spatial and temporal horizon and human creation. Sensibility, with its conscious categories within an indeterminate framework, is intuitively the same for any consciousness, while the unconscious spatial-temporality, being a determined framework, cannot be the same at time for any subject. The unconscious horizon of space and time percolate to consciousness through scientific, artistic and metaphysical creation. Here we have again the antinomic understanding of the spatial and temporal categories: unconscious and conscious, determined and undetermined, sensible and intelligible at the same time. Blaga's theory of the dyads explain this question in the theory of cognition. The two terms, the conscious and the unconscious, are heterogeneous entities, both in terms of contents and function. A certain theoretical system may be generalised to the whole of mankind through scientific influence and contamination, though, transmission of techniques of the unconscious can take place. The phenomenal sensible world, notes Blaga, offers the primary data, the signs of hidden things. These signs of the world of real data ask for the revelation of the essence. Here begins the mission of human creation; through works of art and through mythical, metaphysical or constructively scientific, creative cognition, humans try to approach these essences (mysteries, as Blaga put it). This is how the distinction arises: the first function of sensibility in the realm of receptive cognition produces the signal at the scientific and artistic level; the second function at the level of the subconscious categories appears in art through sensibility shaped by the so-called abyssal categories. Therefore sensibility in art has a different role from signalling sensibility because here it also performs its transforming and creative second function. This is why every

aesthetic criterion must differentiate between the receptive and the creative capacities of human sensibility. In the case of scientific creation stylistic categories do not act at the level of sensibility, because here only the first function of the senses, that of signalling and reception, is manifest, but the double functionality of intelligence appears. In the case of art, intelligence is manifested only as orientation. In science, intelligence has a double function on the basis of Kantian, receptive categories of cognition, but also as creation on the basis of stylistic categories in a cultural field. Blaga mentions two types of cognition, the one necessary for biological and pragmatic purposes, and the other for spiritual and intentional ones. The difference between them is similar to the between natural and artistic beauty.

The spiritual substance that takes the forms of cultural, artistic, metaphysical or scientific creations, claims Blaga, has in its complex structure plastic elements that are revealed in the spatial horizon, and lyrical elements revealed in the temporal one.

The variable spatial perspectives introduced by Blaga, in place of

Kant's unique and universal perspectival categories, may be regarded as preceding the holistic, in-laid and fragmentary-artistic interpretations of space in the postmodern paradigm that is now beginning to take shape. As Blaga noted in criticism of the generalisation of Newton's physics and of scientistic reductionism:

The spatial form of sensibility becomes, in the Kantian theory, a homogenous three-dimensional and fell victim to an excess of mathematical zeal... He changes the constant but indeterminate framework for a precise three-dimensional, homogenous and infinite framework (3, p.157).

This, rightly noted Blaga, is nothing but the purely ideal expression of the spatial horizon of the Westerner. This fact is correctly noted by the morphology of culture, but it is wrong, in the opinion of the Romanian philosopher, in placing the extension of a certain metaphysical conception at the level of the consciousness. The spatial horizon of conscious sensibility is a general, indeterminate fact, a constant of every human consciousness. The second aspect of the dyad, the spatial horizon of

the unconscious, beingvariably structured and determined with respect to subjects and populations, produces variations and differentiation. Unconscious horizons are frequently at odds with the conscious ones, but they percolate into consciousness through creation, triggering the horizon of nostalgia in the case of a dislocated population. Thus, the work of the Romanian philosopher deals with a problem that stands at the centre of attention of contemporary post-modernist trends (see 5,6,9); they require a spatial overlay precisely to avoid the feeling of being uprooted and of imposing a single spatial horizon upon different populations. To defeat the theory of technological universalism and to rehabilitate all ethical, spatial and geographical identities, post-modernism opens the problem of space to a general, pluralist reconsideration, and it may be interesting to use Blaga's spatial dyad in this connection.

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### THE METAPHYSICAL MEANING OF CULTURE IN LUCIAN BLAGA'S PHILOSOPHY

### Oltea Miscol

# 1 Metaphysics, mystery and culture

Lucian Blaga's whole work finally outlines a metaphysical vision of the whole of existence. For him a metaphysics, which is always a leap into the uncontrollable, can have only an exposition, and not an argumentation, an argument in development of a metaphysics often being only a rhetorical pseudoargument. Metaphysics is not only a projection of the human soul in the cosmos, but very often the projection of a specific psychology in the cosmos. He states that philosophy does not discover the real world, but imagines only possible worlds, its aim being the revelation of the mystery of existence in its entirety. One of Lucian Blaga's aphorisms states: 'My philosophy is a kind of positivism of the mysteries' (Lucian Blaga, Elanul insulei/ The Elan of the Island, 1 p.74). Blaga's second trilogy, entitled The Trilogy of Culture, containing Horizon and Style, The Mioritic Space (a term derived from Mioritza/The Ewe Lamb, the most significant of the Romanian ballads), The Genesis of Metaphor and the Meaning of Culture, implies, as a main idea supported by some other leitmotifs, the idea of 'mystery'. Blaga was the first who ever tried to establish the idea of mystery in the formation of human knowledge, and tries to point out in other of his works, the various values of the idea of mystery.

In The Trilogy of Culture mystery is seen, first of all, as the primary, irreducible horizon of culture, Unlike the other Romanian philosophers of the same period, who tacitly approached culture from one or more specific branches of science or defined it by means of spiritual values, Lucian Blaga

takes an entirely different stand. Metaphysical meaning conferred to culture places him in an unique position in Romanian and perhaps in world philosophy.

In Blaga's case it comes to a choice of principle, openly professed, which represents the main key in deciphering and understanding, not only his *Trilogy of Culture*, but also the trilogies devoted to knowledge and to values, especially the anthropological aspects.

In the last part of his *Trilogy of Culture*, Blaga emphasises the peculiarities of his way of defining culture as 'a visible sign' of an existential variant, of an *ontological mutation* which is more closely related to man's constitution than to his physical appearance, or at least, is equally so.

Lucian Blaga infers the conditions of culture from a profound study of the very existential dimensions of man, that is, those of the metaphorising being who lives against the horizon of mystery and revelation. From this stand point,

culture is hardly a luxury, which man affords as an adornment which can exist or not; culture emerges as a complementary issue from the specificity of human existence as such, which is existence in mystery and for revelation (Lucian Blaga, Geneza metaforei si sensul culturii/The Genesis of Metaphor and the Meaning of Culture, 2 p.365)

In these reflections Blaga emphasises from the beginning the idea according to which, culture, as an essential attribute of mankind, belongs firstly to the *ontological horizon*. This idea is not one among many others, but a very important one, being a philosophical key, a metaphysical interpretation of a reality which brings about so many questions and gets so many different answers, often controversial. With Blaga, culture is

organically related to man's existential condition which represents not only a biological mutation, but an *ontological* one, unlike those in the animal kingdom.

How much importance Blaga confers to this idea can be seen from the following specification made by the philosopher himself: 'Any attempt to conceive culture other than as an expression of the ontological variant we are talking about, leads to a degradation and to an under-evaluation of culture' (Lucian Blaga, Geneza metaforei si sensul culturii/The Genesis of Metaphor and the Meaning of Culture, p.367). Thus, in Blaga's case, philosophical anthropology appears as being structurally assimilated within the substance of the philosophy of culture.

### 2 Two contrary views

The originality of the Romanian philosopher's outlook on culture is obvious, especially in comparison with two conceptions, widely spread and deeply influential in his time, which Blaga seriously criticises: morphological theory and psycho-analysis.

Blaga points out that in the frame-work of the morphological outlook, cultures are seen as living organisms like plants, with beginnings, growings, blossomings and ends. From this viewpoint, culture as an autonomous organism is gifted with a mysterious 'soul' according to O. Spengler, or 'paideuma' according to L. Frobenius. Blaga asserts that in Spengler's outlook there are real souls of cultures, like a sort of metaphysical entities, inevitably related to a certain landscape, by which he tries to explain the originary phenomenon of a culture. But culture, Blaga says, is not a superior organism as

Frobenius or Spengler thinks, or the result of a biological mutation. To explain the genesis of culture (creation) it is not at all necessary to resort to the hypothesis to the hypothesis of a 'special soul' of culture. Such an assumption can be at the most a poetical metaphor. Blaga states that the animist theory is predestined fatally to understand cultures like absolute monads, what is not at all proved by facts and besides, involves serious drawbacks. 'The idea of inner fatality of a culture, guides Spengler to the paradoxical idea of the "contemporaneity" between phenomena belonging to the different cultures' (Lucian Blaga, Zari si etape/Horizons and Stages, p. 197). Blaga specifies that, in change, his own theory proves a wide understanding for the cultural interferences, extant always and everywhere.

As for 'space', Blaga asserts that the morphology of culture no more understands this category in the Kantian spirit, as an absolute and constant apriori of human intuition, but as a creative act of sensibility, as variable as the different cultures. But both the Kantian and morphological theory conceive space intuition as a creative act of conscious sensibility. Unlike this viewpoint, Blaga states his hypothesis about existence of 'spatial horizons', belonging to the domain of unconscious, which are active stylistic categories in the process of cultural creation.

As for psycho-analysis, Blaga expresses two objections of principle. One of them points to the category of the unconscious, which is seen by the representatives of this theory (especially by Freud's school) in too narrow a way, as a simple receptacle of the chaotic deposits proceeding from consciousness or as a simple basement of consciousness. To such a viewpoint, Blaga opposes his own outlook upon unconscious as a verv complex psychic reality with autonomous functions, with a order and an equilibrium because of which it becomes an element sufficient to itself in much larger measure than is consciousness. With Blaga, unconscious has a 'cosmotic' character and not a chaotic one, being gifted with its own categories, all of them converging to create a stylistic universe. The Romanian philosopher has another main objection to psycho-analysis, this time concerning the process of cultural creation. Blaga indicates that psycho-analysis brings cultural creation (artistic, philosophical, etc.) into connection with the loss and recovering of psychic equilibrium. That is, this theory is ready to see cultural creation as an equivalent of certain sicknesses and viceversa. It is built on a wholly medical view and criteria. Or, Blaga retorts, creation is not destined 'to heal', essentially. Creation is even the normal destiny of man: he not being destined to equilibrium at any price, but to creation at any risk. By ontological mutations taking place inside him, man gets rid of animal-paradisiac state irrevocably, in favour of a creative, dynamic, dangerous existence. Another simple argument for proposition that psycho-analysis doesn't touch the functional essence of the phenomenon of cultural creation, is the valuation of cultural creations, not by therapeutic criteria, but by ones immanent to cultural creativity.

### 3 The centrality of culture

In Blaga's thinking, culture is not an epiphenomenon, or something contingent as related to man; on the contrary, it is man's fulfilment. If man's need to transcend the immediate level of existence by means of creation, or his propensity to reveal a mystery, have each been regarded simply as one phenomenon among others, for Blaga existence within the horizon of mystery and revelation appears as an essential fact of the human spirit, something primary and irreducible, an implied condition without which man is not man. This is also important premise for any explanation concerning culture.

Blaga asserts that, complying with a destiny innate in his being, man strives in two ways to reveal mystery to himself: through acts of cognition or of cultural creation.

From Blaga's point of view, every cultural creation comprises, as its core, existence in mystery and for revelation, this ontological interpretation being the only one consistent with the immanent values of culture.

The attainment of man's creative destiny, his attempt to raise himself in a non-immediate horizon, is possible by means of stylistic embodiments. The genuine dimensions of the creative acts of culture and consequently of styles (ensembles of forms, specific to the human groups which create them) belong not to the sphere of sensibility and consciousness, but to the domain of the unconscious with its categories that Blaga calls, because of their depth and place, 'abyssal'.

In the thinking of the Romanian philosopher, the unconscious represents a peculiar world gifted with extremely active faculties. Thus the 'unconscious stylistic matrix' possesses its 'spatial horizons', 'temporal horizons', 'axiological stresses', 'anabasis and catabasic attitude', and 'formative will', all of these abyssal categories accounting for the infinite possibilities of the creative human spirit and for the singularity of every creation.

By asserting that style is a dominant phenomenon of any human culture, which is contained in one way or another in its very definition, the Romanian philosopher underlines its decisive importance for the spiritual life of an individual or for a whole collectivity.

One must not fail to notice that in Blaga's outlook, culture is regarded as the expression 'of a *sui generis* way of existence' and style is the means by which a product of a creative act, a product of the human spirit, gains the supreme dignity that man can hope for.

Being never able to satisfy man's existential condition, the immediate world, as a concrete presence, represents for human beings only a 'material', a simple 'moment', a 'bridge', to go further within the non-immediate horizon of mystery and revelation.

### 4 Essential limitations

However, human being is not able to comprehend all the mysteries because of 'transcendent hindrances'. With Blaga, 'transcendent hindrances' represent, on the plane of cultural creation, the counterpart of 'transcendent censorship', on the plane of human knowledge. Abyssal stylistic categories themselves are a kind of impediment imposed by the Great Anonym (the supreme principle of existence) in order that he may never reveal mysteries of the world in a positive-adequate way. Style, with its abyssal categories, is the means by which the Great Anonym provides for the creative destiny of man, on the one hand, and, on the other, by which he defends himself from man's striving to substitute himself for him. These transcendent hindrances keep man in a permanent creative state, protecting him from the unknown dangers of absolute revelation. Man lives therefore in the frame of an incessant inner antimony, in a frame of an antagonism of finality. His creative opportunities, the fulfilment of his unique destiny, are delimited by the existence for mystery and revelation and transcendent reins. Here from the grandeur and tragedy of man's destiny. Asserting that style is the only human possibility to overcome the immediate and the supreme satisfaction given to man's existential ability, but which, at the same time, is 'a defeated aspiration

to the absolute revelation', the Romanian philosopher confers upon style and through it to culture, a metaphysical meaning stimulating for the human spirit. Such a meaning confers a sense to the relativity of human creation. By this outlook, Lucian Blaga integrates man and culture as a specific way of human existence into an infinite cosmic assembly, composed of finite, existential, earthly guide-marks as well as transcendent ones.

In such a context, Lucian Blaga inevitably approaches another aspect, that of the relation between culture and civilisation. He pertinently notices that the delimitations between those two terms are currently made by conventional separations and by enumeration and not on the base of a structural criterion. He cites H. Chamberlain's 4 and Spengler's conceptions about culture and civilisation as examples. In opposition to such conceptions, Blaga is in favour of a definition of those two terms from a structural point of view. In his outlook cultural creation has two peculiarities: on the one hand it is, in one way or another, a metaphor or a metaphorical fabric; on the other hand, it is stamped with a stylistic seal. This double aspect defines the profile and the structure of the spiritual embodiments which form culture.

As for civilisation, Blaga asserts that it is a creation of the human spirit related to the vital interests, security and comfort without revelatory features, but having by reflex an accessory stylistic trait. So, between culture and civilisation there is a profound difference from the ontological point of view: the former is the expression of one mode of existence and the latter is the expression of the other one.

Since style represents the supreme dignity of human creation, Blaga infers that, between culture and civilisation as completely different modes of existence, for which style is involved as a necessary character (in the case of culture) or as an accessory one (in the case of civilisation), there is a structural difference, and consequently a difference in value, for the human condition.

So, Blaga marks radically the difference between culture and civilisation by conferring ontological meanings to it.

Postulating an absolute principle of the world, the Great Anonym, the identity of which is not specified, but rather supposed, and which is not identified with that of the ordinary idea of God, Blaga turns it, while preserving its ontological meaning, into the generating element of the world, but not into its Maker.

Blaga places man in an irreducible parallelism with the absolute principle, thus bringing forth man's demiurgical vocation, an idea according to which his unique destiny, his aspiration towards the Absolute, is accomplished by creative acts of culture.

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#### Notes:

- 1. Editura Dacia, Cluj Napoca, 1977.
- Editura pentru Literatura Universala, Bucharest, 1969.
- 3. Editura pentru Literatura, Bucharest, 1968.
- 4. See Foundations of the Nineteenth Century

### LUCIAN BLAGA ON MAN. ART AND VALUES

### Elena Gheorghe

Lucian Blaga underlined the crucial role of culture in the making of man. 'Culture is intrinsic to man and the exodus from culture means the abolition of mankind' stated the author of Art and Value (Trilogy of Value, p. 545).

Among other major contribution to philosophy of culture and values L. Blaga developed systematically a theory of styles and applied it to the field of psychology, aesthetics, philosophy of nature, anthropology, science, ontology and metaphysics. The stylistic elements in Blaga's conception are not some hazy psychological inclinations, but the modelling expressions of a 'categorical' status pertaining to the unconscious mind. L. Blaga also proposed a profoundly original typology of values, which emphasised the role of man in cultural creation and the link between man and value.

#### 1 Art and man

The profound humanism of Lucian Blaga's thought is proved, once more, by his aesthetic outlook, according to which 'art, like any other cultural production must be seen and understood as a symptom of a certain ontological mode that puts between man and ape a greater distance than that between a species and another, viz., the distance between one kingdom and another' (Art and Value p. 566). Art is, therefore, a distinctive mark of man's essence, a specific way in which man integrates himself into his creative destiny. It should be pointed out that this understanding of art is opposed to all attempts at explaining the origin of art by exclusively biological, psychological, or even psychopathological factors.

Art is in his conception 'the attempt to reveal mystery by means of sensitivity and concrete intuition'. In other words, art is the cultural creation by which man attempts to reveal mystery metaphorically and in a stylistic pattern.

Stylistic categories are some kind of fords (havens) or exits from the concrete world, but the same time they are brakes that thwart the absolute revelation of mystery

wrote Blaga in his Art and Value (p. 567). In other words art is a continuous aspiration of man towards the revelation of mystery. Even if complete cognition of mystery (that is the absolute) is impossible, we can aspire towards it by means of metaphorical ways and by stylistic categories. Thus, cultural creation becomes a means by which man can approach the absolute, to know the unknown. The work of art as 'metaphorical precipitate' is 'an objective storing of revealing acts': it enables man, by the act of artistic experience, to 'virtualise' i.e. to remove into the shade, on to a secondary plane, the horizon of the given, concrete world, the common occurrences of life and to extend, to enhance, to 'actualise' his way of existing in the horizon of mystery, hence his 'way of being man', to become integrated, through artistic experience, into the specifically human ontological mode.

These thoughts of Blaga's contain ideas of great humanistic force. He, a philosopher of culture, praises art for its capacity to make man a 'complete man', since artistic experience makes possible

the human individual's satisfaction at seeing himself actually propelled into what he already is by virtue of his general human destiny, that is, at seeing himself raised to his rank as a unique class in the universe. The work of art is, according to Blaga, a means 'leading the individual to the clear position of being "man" (as he stated he in *Art and Value*, p. 567).

As concerns Blaga's analysis of aesthetic satisfaction, one must note the consistent objections and criticism that he levels at German idealism and romanticism, which view the work of art either as 'an extension of man into divinity' or, conversely, as 'an invasion of divine consciousness into man'. Blaga reproaches these theories with the fact that they 'completely overlook man's specific existence and horizon'.

For instance, he criticised Schelling's view on art as a means which guarantees the access to the Absolute. Also, Blaga didn't agree with Hegel's view on art as an inferior form of realisation of the Idea.

As for the nature of aesthetic satisfaction, Blaga criticised the 'excited interpretation' of German romanticism by which these satisfactions provide man with a 'god's consciousness'.

In the Romanian philosopher's opinion art is neither an induction to Divinity nor a substitute for it, as was stated by German idealism, but art is 'a corollary of the specific ontological mode of existence of man in the horizon of mystery' (Art and Value p. 579). In Blaga's view the aim of art is not to transport us into the horizon of Divinity, because artistic creation is profoundly linked to man, to his world and his making as a complete man.

Blaga also levelled his criticism at the idea of hierarchisation of arts. He didn't agree with Kant's conception which praised most poetry as a supreme form of art, but he disapproved also of Schopenhauer's view on music as such an art as well. As Blaga saw it, there cannot be any hierarchy of arts, because each art is a specific attempt of man to reveal mystery (in specific ways). Therefore he stated the idea of 'cultural parallelism' by which 'art, mythology, metaphysics are parallel appearances' which stand under the domination of the same abyssal categories (*Art and Value*, p. 570).

Improving upon the idea of the autonomy of art, Blaga delimits himself from Idealist conceptions, as in his own view art is neither the realisation of the absolute nor any 'approximation' to the absolute, as considered by Idealism.

The originality of Blaga's approach to the philosophy of art is also attested by his formulation of the law of non-transposability designed to raise an 'impermeable screen' between the natural aesthetic and the artistic. This law was born of the Blaga's observation that 'the "natural" structure and aesthetic values and the structure and aesthetic values of "art" are altogether incommensurable'. According to this law, the objective structures of the natural world aestheticly viewed cannot be transposed as such into art without losing their original quality and, conversely, the artistic cannot be transposed into nature, for the some reason. In this context Blaga's view on deviations from the law of non-transposability acquire particular value, since such deviations result in para-artistic phenomena, in 'displaced beauty', in kitsch as 'would-be beauty' which, none the less, caters to poorer artistic taste.

#### 2 Artistic values

Profoundly original also is Blaga's approach to the world of values. Greatly concerned with the question of values, the Romanian philosopher of culture starts from the idea that any theoretical construction aiming at a philosophical status should deal with 'the problem of discovering the nature and substratum of values', and, implicitly,

'legitimate the world of values'.

The place held by the debate on values in Blaga's philosophy is linked to his conviction that the world of values represents 'the specific field of human existence': that man cannot live without values since he is a creator and receiver of values. 'Human consciousness lives in a climate of spiritual values', wrote Blaga. He makes a major theoretical contribution by advancing the idea that the axiological dimension is a defining feature of human essence.

Blaga's theory of artistic values is a corollary of his ideas of the nature and specificity of the artistic universe (of artistic creation, of the work of art, and of artistic experience). Starting from the wellknown premiss that any work of art is a heterogeneous construction in which the aesthetic values intermix with the extra-aesthetic, Blaga deals, in his work Trilogia valorilor (The Trilogy of Values) solely with aesthetic values which pertain to art. The Romanian philosopher propounds an original classification of the aesthetic values into five classes:

- 1) polar values;
- 2) vicarious values;
- 3) tertiary values:
- 4) floating values;
- 5) accessory values.

In his conception, such an ordering of the values is not an arbitrary procedure. It stems from the very structure of the work of art, from the contribution of these values to the work of art. Also, this ordering erects a hierarchy in terms of importance, of the role played by each class. This hierarchisation is twofold: downward (in the order of importance and essence) and upward (in the sense of including a class in the next higher one).

#### (i) Polar values

From the perspective of the polar values, the work of art is: a mixture of mystery and sensible revelation, unity and multiplicity; it has at the same time significant and irrational aspects; it is a spontaneous as well

as a conscious creation; it has canonical and original aspects.

As a result, the work of art has a polar structure. Therefore polarity is a quality of every work of art. For instance: Byzantine art emphasized mystery, unity, significance, canon, consciousness.

#### 2. Vicarious values

The vicarious, or stylistic values are based on the stylistic categories. The stylistic categories that generate the vicarious values and thus made a stylistic matrix are: horizontal categories, spatial and temporal; attitudinal categories (affirmative, negative, neutral); categories of movement and destiny stationary); (anabasic, catabasic, formative categories (generalized, individualized, elemental). But we must not infer, from the fact that they are replaceable (vicarious) by each other, that we could do without them in creating and experiencing art. They are indispensable values. The place and role of these values in the structure and reception of the work of art are determined, in his view, by the nature of art as an act revealing mysteries in stylistic patterns. Artistic productions are born deep in the unconscious, and are brought to life and moulded by sensitive factors that make up a stylistic matrix and shape artistic productions. These categories of the unconscious are reflected into consciousness, where they crystallise as values.

Little by little, the abyssal categories may force their way up and burst into consciousness, where they also become 'values' which demand acceptance in art and which vigorously affect the evaluation of a work of art (*Art and Value*, p. 567).

This aspect is very important in the immanent evaluation of the work of art, as the spectator cannot adequately receive the work unless 'he transposes himself, by a kind of intuition, into the matrix of these abyssal categories which presided in deep over the shaping of the work of art'. The individual receiver simultaneously possess-

es-according to Blaga-vicarious values, which consciously express the abyssal categories peculiar to himself, and values expressing the abyssal categories of other individuals (such as the creator of the work of art). The fact that these values are not immutable but, on the contrary, can be replaced promptly by others, depending on the stylistic traits of the work of art, enables the receiver to assume a suitable attitude. It is worth noting, in this connection, Blaga's thesis on the educability and malleability of the individual's artistic taste (these traits being derived from the fact that taste is subordinate to consciousness), while his abyssal categories show greater 'immunity' to conscious inductions and phenom-

Blaga carries his analysis into the realms of artistic creation too, detecting the occasional tension between an artist's conscious taste and his abyssal (unconscious) categories in virtue of which he produces something different from what his will or taste would demand. The works of such artists are, as a rule, rightly appreciated later, when the public have 'adjusted' (actually, educated) their taste. By this concept of tension Blaga points out 'the positive role of the unconscious as the dynamic categorial and cosmogenetic (world-creating) centre'.

### 3. Tertiary values

Tertiary values belong exclusively to sensitivity. They also exist in nature (not only in art) but they can not be transposed from one field to the other.

Such values are, for instance: proportion, harmony, the expression of feelings, the intuitive qualities of the plastic colour and sound of the object. In Blaga's opinion, sensitivity in art is subordinated to the unconscious stylistic factors: e.g. language as a mean of revelation, for poetry means not only the equivalent of a significance (which-requires the help of the conscious mind to be disclosed), but also reveals itself by its sonorous body, rhythm, syntax, etc.

#### 4. Floating values

Floating values also belong to the structure of the work of art. They make possible the differentiation of art and the genres of art, and do so

categorically not their hierarchisation. What differentiates the arts is 'the field that is revealed and the sensitive means by which this revelation is made'.

#### 5. Accessory values

Accessory values do not belong to the essence and the structure of the work of art, but they can enhance the essential values: e.g. the frame of a painting or the room of a museum, the nature in which a work of art is exposed.

All these values are discussed to reveal the fact that the work of art is a *sui generis* world: that it is a 'cosmoid', not an organism; that is, art is a special and separate universe which has its proper mysteries, 'a cosmogenetic category' which is self-sufficient.

Blaga's theory of values is conceived to have a nobler and higher goal: that is, to prove that the purpose of philosophy must be to 'legitimate the world of values'.

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#### LUCIAN BLAGA AND UNIVERSAL CULTURE

#### Dana-Victoria Savu

ne can hardly approach and discuss Lucian Blaga's philosophy if one does not like it. Blaga teaches us how to love philosophy. Understanding philosophy means primarily to love it.

Lucian Blaga's philosophy is highly attractive nowadays because contemporary man is seeking for new expressions of philosophical ideas. The meanings of Blaga's philosophical undertakings arevaried and distinct, as they satisfy the metaphysician, the philosopher of culture, the philosopher of cognition, the philosopher of values etc.

Making the distinction between metaphysics, the theory of cognition, the theory of culture, the theory of value etc., Blaga built a great synthetic philosophy, an overall whole. When perceiving the accomplished level of these distinctions, specifications and especially when studing the system and the work that is required by it, which again explains the system, we see that we must make a clear-cut distinction between these plans. However, in Blaga's philosophical works there is an inner logic, subtly expressed and closely co-ordinated with these distinctions. The theoretical construction, peculiar to the

philosopher, contains a very elaborated synthesis of Kant, Hegel and phenomenology. This system also contains both an analytical-critical profile and a visionary-constructive one. But in the actual configuration of the system, man's problem acquires the aspect of a phenomenology of the historicity of mankind as seen from the angle of knowledge and cultural creation.

Blaga aims to confer upon human possibilities of knowledge the function of 'centres of the problem of the progressive orientation of human culture', this being on the axiological field. Still he was not content with such a synthesis. He

used these sources to create a new. original philosophy, expressed in a peculiar language. Lucian Blaga's new words are concepts and at the same time they contain the colour, the mystery, the plasticity, the fascination of metaphor. As one of his commentators puts it: Blaga 'managed to achieve the most organic and productive synthesis in Romanian culture between the philosophical and the artistic dimensions of a spiritual creation with a great diversity of ideas' (Al. Tanase, Introductory Study, Lucian Blaga Works, vol. 8)

Lucian Blaga's theory programmatically refers to all the spiritual forms by means of which man asserts his fundamental historicity. Consequently, he built on rationalist, humanist bases a scientific anthropology, a philosophy of culture, style, arts and values. Excellently speculative, his thought is transmitted mainly by way of metapho. The author-poet uses the figures of speech as a powerful instrument for synthesis, for integration in the diachrony of culture and in the act of reflection. His artistic sensitivity, kept in check and enriched by the rigour of reason, is strongly present in almost every sentence and in his whole work.

Blaga's monumental philosophical and poetical creation represents a convincing argument for the way in which the human soul and mind can conceive succinctly, and at the same time exhaustively, rigorously and miraculously, the relation between the self and the world, between the inside and the outer world in terms of ideas and in a general tension that is implied. L. Blaga outlines the ideas of the openness of philosophy to the meaning of life, of the understanding of the anti-finalistic tendency of the limits of knowledge, of the significance of the unconscious for the process of cognition, postulating even the existence of the 'Great Anonym'.

Blaga's Great Anonym means the absolute in philosophy, the proof that creation has a certain tragical meaning, that it emerges from the challenge by which the 'Great Anonym' removes man's possible creative competition by a 'transcendental censorship' which lowers human creation to a secondary condition. By the act of creation, man's dignity increases and to the same extent increases the tension on the 'Great Anonym'.

For the Romanian philosopher, the world has a certain mystery that cannot be known by man, but man in his capacity of a creative human being gives up happily the knowledge of the absolute, but he secures and amplifies for himself the possibility and capacity of creation through ideas. The first spiritual step of Blaga's system is symbolised by the principle of the 'Great Anonym' which is the metaphysical premise of the speculative construction, the representation or the central intuition of cosmology, another existence than that of the known world, another principle than that proposed by the previous philosophical systems, the unitary whole built as a highly complex structure, being completely autarchic and self-sufficient. The 'Great Anonym' is conceived by Blaga as the centre of everything there is. The 'Great Anonym' founds the 'ontological modes' (of crystals, plants, animals, of the human mode and that of the Divine Being) which is characterised by 'way of being' and 'horizons', that is, by intensity and complexity, the most important of them being 'the human ontological mode'.

The latter consists of 'the way of being a creator' which belongs to man with two horizons: the concrete horizon of the sensible world (needed for his self-preservation) and the second horizon of the unknown (that is, of mystery and its revelation). If the first horizon characterises man as an animal (linked to nature), the second horizon is specifically human, 'by means of which man actually becomes a full human being'; a historical being with decisive superiority as individual and as genus.

'The horizon of the unknown, as a dimension peculiar to man's milieu becomes the chief factor impelling man to the most fruitful attempts to reveal to himself what still lies hidden'. 'The paradisiacal man' corresponds to the first horizon and the 'Luciferian man' to the second horizon. This delimitation will help Blaga to outline the concept of his theory of knowledge. The first type of knowledge-paradisiacal knowledge—is called by Blaga pluscognition, and the second one-Luciferian knowledge-minus-cognition. Luciferian knowledge appears as a dissonant use of the idea as regards the given material, as a result of the situation of the intellect outside its logical functions, which make it possible for the 'ecstatic' intellect to 'leap from its functional joints and to achieve Luciferian knowledge'. This knowledge represents an opening upon mystery (the unknown). This type of knowledge is interrogative, and problematical; it brings about the crisis of the object, comprises questions of high interior 'tensions', introduces risks and failure, opens the 'mysteries as mysteries'. In his essence, man exists in the horizon of mystery and for its revelation and only thus by means of man something new emerges in the world. Existence enriched itself by its most profound variant (the human existence) is able to become virtually a competitor with the 'Great Anonym'.

The striving after creativity is not lacking in any human being, but man can be neither the absolute creator nor the absolute connoisseur of mystery, in spite of the fact that the tendency is always there. The existence of the 'transcendental censorship' doesn't exclude man's creativity: on the contrary, this implies it as a proof of his uniqueness. This censorship, which takes away absolute and unlimited knowledge from man, is a metaphorical expression of the relationship between the absolute and the relative

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### LUCIAN BLAGA AND THE METAPHYSICS OF COMPUTERS

### G.G. Constandache

Prior to approaching the actual subject, I feel bound to give two explanations:

- (i) an answer to, 'Can such a topic involve Lucian Blaga?';
- (ii) and an attempt to substantiate the denomination of a discipline not ratified as yet by those concerned with Artificial Intelligence (AI) and robotics.

The answer to (i) depends upon a concept of Metaphysics of Computers, and so I shall begin with (ii). The name which I am trying to promote, stemming from my experience in lecturing on 'Philosophy of Cognitive Science' to students of the Computer and Process Control Department of the Polytechnic University of Bucharest, is doubly inspired and motivated.

By using this name I intend, on the one hand, to highlight the already evident fact that the reputation of Metaphysics has been improving greatly in recent decades while Logical Positivism has been gradually losing ground (P. Suppes, Probabilistic Metaphysics). On the other hand, this denomination reminds us of the widening and renewal of the classical subjectmatter of this field by the contributions fed into by general technology, which has 'bred its own metaphysics' outstanding Bunge, Science and Philosophy). General technology contains the main system theories that refer to automatic machines, information, control and optimisation. On this centenary celebration of Blaga's birthday, I shall endeavour to prove the continuing relevance of his philosophical vision by revealing its effects upon matters so up to date that an historical explanation is necessary.

By the year of his death (1961), the thinker-poet had brought himself up to date with the principal facts of the social and cultural development of our world, without ever neglecting its ever more impressive scientific and technical achievements (from the law of entropy to the flight to the Moon).

Despite the lack of direct proofs of his concern with electronic equipment and automatic machines, there are some relevant aphorisms of his late period which I shall cite after mentioning the principal events in the early development of computors and robots:

- 1. The first analogue computer was made in 1925, and the first digital and fully automated one in 1944. The ENIAC electronic computer, completed in 1946, was a clear token of the universality of computers and of their capacity for solving any algorithmic problem.
- 2. The word ROBOT was coined and used by Karel Capek in his play RUR and acquired world-wide acceptance in 1923 when the play was translated into English. 'Robotics' was coined by Isaac Asimov in 1942 in his SF short story, Runaround, where he also enunciated his famous Laws for Robots. The first industrial robot was designed and completed in 1954 when George Deval applied for a patent for a dot-by-dot controlled, retroactive memory, general switchboard.
- 3. If we consider the invention of computers as being a practical urgency, we could as well say that AI appeared after 1950 as a culmination of certain ideas that had been current for millennia and quite often had imagination as their sole basis.
- 4. Concerns with the mechanisms of thinking, then the fundamentals of mathematics, and, recently with information-modelling, as well as

the formalisation of reasoning in mathematical logic and the progress of machine-made calculations, have all pushed forward an essential concept: SYMBOLIC PROCESS-ING. The indubitable success encountered by this new science, AI, was ratified in 1956 when the LT (Logic Theorem) Program was introduced by A. Newell, J.C. Show and H. Simon, and could demonstrate theorems of Principia Mathematica (a task exceeding the average IQ). The program used symbolic processing. Thus events related to the theme of 'Metaphysics of Computers' can be found within Blaga's lifetime.

Let me now embark on a brief outline of such questions as could help us unveil certain metaphysical assertions (ultimate suppositions) that are needed in understanding (if not explaining) the computer as an entity and its objectives. Moreover, answers, even if rather indirect ones, have to be given to such questions by referring to the work of our great metaphysical poet.

1. What differentiates technological knowledge in its widest sense from the craftsman's skill and from science?

There is an evident aversion to technique on the part of all romantic wits. Haven't these wits already noticed that technique does discard the fairy-tale out of our life only to the extent that it is itself a successful fairy-tale? (*The Élan of the Island*, p.139).

This answer is an invitation to a more daring perspective, since it no longer depicts technology as 'a complex of applied disciplines, as long as they resort to scientific methods' (M. Bunge, op. cit.), and downgrades the means but highlights the roles of objects.

2. Have the most notable technical products any peculiarities of their own that can render them different from natural objects, besides their being conceived and made by Man?

Technique is the fantasy of reality (ibid, p.231).

#### Or, more specifically,

Technique delineates potentials of nature which nature can hardly accomplish by itself. Nature seems to have been expecting Man's birth, just to have its potentials accomplished (ibid. p.247).

3. Is the technological project entirely different from the levels of every day life, as well as from the scientific ideal of a model? Not exactly, because

Fairy-tales have archaic origins, being thousands of years old. Still, they display, almost fabulously, the entire programme of modern technique. Science, from the Renaissance onwards, has done nothing but hugely increase the chances of turning fairy-tales into reality (ibid. p.33).

4. Could we assert that Man's artificial environment, mainly its artefacts and the advanced products of the present day technologies, represent embodiments or materialisations of ideas? For Blaga, 'reality is the ruin of a fairy-tale' (ibid. p.186). Not only is the route from intention to its completion, winding, but also any project is multiply determined. Thus,

The great technical prehistoric genius, who once invented the wheel, must have been born under a lucky star. Invention can hardly be imagined as possible under natural conditions. I consider that early one morning at dawn, the sun no longer followed its rising track, but tumbled, golden-like, down into Man's cave. There it stopped right in front of the great 'engineer'; the latter realised that the Sun's reason for entering his cave was to show him a model for something. It was at that moment that the 'engineer' knew for sure that the time was ripe for him to put his thoughts together (idem. p.241).

I consider that a direct answer would have been 'just partially'.

5. May computers be endowed with free will? May they make decisions of their own, either good or bad? With Blaga:

Angels are a sort of automaton of morality and saintliness, hardly interesting from the stand-point of the human spirit as is everything that is automatic (idem. p. 211).

Angels, according to theological descriptions, cannot be superior to Man. How could an Angel with its perfect servant conscience, be superior to Man, who is endowed with the conscience of a free, creative being? (idem. p. 215).

Even more would Blaga have not accepted the possibility of Man's being dominated by machines, and of machines conceiving original ideas.

6. Is there any analogy between the reliability of an artefact and health as a state of the human body?

Such sickness as incites to creation is actually health of a higher order (idem. p.202).

If we consider its creative power, any sickness is a seed of divinity (idem. p. 207).

7. Are there any ontological suppositions about consciousness capable of justifying various psychiatric therapies? Can they be accredited from the study of computers?

Archetypes occur in psychopaths' fantasies as automatic complexes. A psychopath, in contrast to a creator, is torn apart from the stylistic field of history in which he should participate, either actively or at least receptively. A psychopath is one who withdraws himself beyond history and is haunted by archetypes instead of stylistic vectors. We can consider as creationorientated and normal only those human individuals who participate in history and integrate their archetypes within its ever changing stylistic patterns (Anthropological Aspects, p.175)

Earlier Blaga had written:

While archetypes stem from animal-

ity, stylistic factors have history as their sole fountainhead.

Recently the question of the relationship between creator and spirit has been settled by interactionist dualism: 'Unity of experience is ensured by the self-conscious spirit and not by the neural system in the border areas of the brain hemispheres' (J. C. Eccles, 1978). The self-conscious psyche does not only play a superior interactive and controlling action, since the human brain has evolved towards a feature completely different from any other in nature: creative imagination.. Such dualism is, however, contested: e.g. M. Bunge asserts that the question of the relationship between the brain and mind ought to be replaced by that between the brain and the rest of the body, and P. Suppes rejects the idea that biological processes inside neural systems are actually what we call mental processes, making an analogy with computer operations:

Software can hardly be split from the hardware, yet the absence of this separation does in no way imply their unity. This is exactly how things are with our mental life (*Probabilistic Metaphysics*, p.230).

Moreover, 'no unity of knowledge exists at the level of the brain and mind' (ibid.. p. 231). Consequently,

the living and interesting mental history of an individual can only be discovered mentally, never physiologically, to the depth of its most intimate details (idem).

It is significant that Eccles' dualism accredits the philosophy of 'three worlds' advanced by Popper (Popper and Eccles, *The Self and Its Brain*, 1977), while Blaga ends his autobiographical novel (*Hronicul si cantecul varstelor/The Chronicle and Song of Ages*) with a sketch of a trialist ontology.

8. Why should we accept the notion of approximation? Does uncertainty affect deduction?

Man is guaranteed his creative exist-

ence through the very conditions that waste all Man's chances of accessing the Absolute (*Fiinta Istorica/The Historic Being*, 1977, p.244).

What is surprising is the current acceptance of Agnosticism, so richly argued by Blaga:

The certainty of knowledge—from the stand-point of its purely psychological characteristics, the logical truth and the general accuracy of measurement—is unattainable (Suppes, op. cit. p.72).

9. Are engineers and managers right when saying that they have to use the concept of personal probability as a measure of rational confidence? Not only they:

The poet and the metaphysician confer on the things around us, not their true meanings and significance, but that meanings and significance which they deserve (*The Élan of the Island*, p. 200).

Is causality in the latter respect only probabilistic or is it deterministic as well?

The knowledge that Man can attain is always anthropomorphic. Even the most abstract working of the idea of causality contains a bit of anthropomorphism (ibid. p.237).

The idea of causality and that of substance were originally anthropomorphic and they on presenting anthropomorphic remnants. Such an assertion does not compel us to give them up. In truth, cultures, not only ideas, have very essential anthropomorphic aspects; culture is anthropomorphism (ibid. p. 235).

10. What optimistic interpretation can be suggested for the following, very soundly argued conclusion?

The collection of past, present and future scientific theories does not converge towards an inevitably preset result capable of offering, when in its final stage, a complete knowledge of the universe (Suppes, op. cit. p.72).

Blaga's answer is unequivocal:

Until we are in possession of the absolute truth, all individuals are free creatively to search for it, each in his own manner (ibid. p.185)

This statement is even more important for metaphysicians, for:

Philosophical solutions are never true solutions; they are, however, elements that cause the progressive deepening of problems (p. 217).

11. Finally we consider that Blaga would not have agreed with all those who opposed the enthusiasm of the fans of AI. What would he have retorted to J. Searle, according to whom we are going to suffer because of certain mythological associated with computers, as long as computers and robots have not spread as widely as cars and men have not begun to program them as easily as they drive cars? ('The Myth of the Computer', NY Review of Books, 1982).

First.

The aim of metaphysics is to reanimate the world that science is deanimating (ibid. p. 197).

Next,

It is rather difficult to solve strictly scientific problems from a moral stand-point. Still, if we did not do that now and then, mankind would collapse (ibid. p. 173).

The co-ordinates of Blaga's philosophical system, clearly stem from his original vision expressed in his massive trilogies, and also in his autobiographical novel, and in his aphorisms which steadily accompanied his systematic creations. The Pragmatic Trilogy itself was diluted into aphorisms and philosophical essays, most of which are included in the novel. The thinker, who seemed to be questioning any desire for metaphysical creation listed under the heading, 'God's lies' and containing only 'diamondshaped, huge, dark spaces', left us a fascinating challenge:

The science of tomorrow will research, with supreme clear-mindedness, to what extent the cosmic reality participates in fairy-tale structures (*Charon's Ferry-boat*, 1990, p.495).

To conclude in keeping with our title, we have to admit that with Blaga, electronic equipment is no more than a symbol of virtuosity, because,

A great artistic or scientific virtuoso is much more like an electric machine than like a human being' (*The Élan of the Island*, p. 182).

Don't you also feel it? It can hardly be otherwise.

Great philosophers are creatures that alight on the Earth from another world. They come from fairy-tales. They are all descendants of 'Wood-Twister' (ibid. p. 198).

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characteristics of human cognition, between the 'finitude' of the individual and the infinite nature of the absolute, justifying at the same time the essential determination of the historical world, known and created by man as historical subject. In Blaga's view, the world is the space and time in which history unfolds, the assembly of conditions that constitute. Historicity, as an intramundane reality, is a dimension of the 'Luciferian man', of the full man who uncovers mysteries by mythical visions, by conceptual abstractions, by artistic images, by

theories—that is, by the act of creation.

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#### ILLATIVE SENSE AND TACIT KNOWLEDGE:

# A Comparison of the Epistemologies of John Henry Newman and Michael Polanyi\*

#### Part I

### Martin X. Moleski, SJ

he purpose of this essay is to show how two very different thinker came to surprisingly similar conclusions about the nature of knowing The claim made here is that Newman recognised the reality that Polanyi calls 'tacit knowledge', while Polanyi recognised the reality that Newman calls 'illative sense'. Where Newman treated the tacit dimension as a matter of fact, Polanyi attempted to develop a theory to account for this fact. 1 What one man noted in passing, the other stopped to explore at length. Newman focused on the capacity of the mind to regulate itself by means of the illative sense; Polanyi concentrated on the product of this potency in the accumulation of tacit knowledge.

#### 1 Illative sense

Newman introduced the term, 'illative sense', in the last three :chapters of An Essay in Aid of a Grammar of Assent,<sup>2</sup> as a 'grand word for a common thing'.<sup>3</sup> This 'grand word' refers to the theme of informal reasoning, to which Newman returned repeatedly over three decades of reflection.<sup>4</sup> In his 1840 sermon, 'Implicit and explicit Reason', Newman anticipated many of the points developed at greater length in the Grammar:

The mind ranges to and fro, and spreads out, and advances forward with a quickness which has become a proverb, and a subtlety and versatility which baffle investigation. It passes on from point to point, gaining one by some indication; another on a probability; then availing itself of an

association; then falling back on some received law; next seizing on testimony; then committing itself to some popular impression, or some inward instinct, or some obscure memory; and thus it makes progress not unlike a clamberer on a steep cliff, who, by quick eye, prompt hand, and firm foot, ascends how he knows not himself, by personal endowments and by practice, rather than by rule, leaving no track behind him, and unable to teach another. It is not too much to say that the stepping by which great geniuses scale the mountains of truth is as unsafe and precarious to men in general, as the ascent of a skilful mountaineer up a literal crag. It is a way which they alone can take; and its justification lies in their success. And such mainly is the way in which all men, gifted or not gifted, commonly reason, not by rule, but by an inward faculty. 5

The 'inward faculty' which operates without rules and which is incapable of being fully formalised or articulated is, in the *Grammar*, called the 'illative sense'. It is the guardian of the mind's operations, determining 'by personal endowments and by practice' when and how to bring the mind to make the act of assent that is the foundation of human certitude:

It is the mind that reasons, and that controls its own reasonings, not any technical apparatus of words and propositions. This power of judging and concluding, when in its perfection, I call the Illative Sense . . . <sup>6</sup>

The ninth chapter of the *Grammar* is entirely devoted to the illative sense. It is the keystone that completes Newman's epistemic investigations. In the tenth and concluding chapter, Newman uses the episte-

mology he has developed as a vehicle for theological reflection on natural and revealed religion. Although the title of the Grammar may seem to promise that Newman will provide rules for the formation of correct assent, just as an English grammar provides rules for correct speech, the work itself is really written in opposition to efforts to formalise the conditions of belief. Where British empiricists were inclined to hold that (1) one must not believe what one does not understand and (2) one must not believe what cannot be proven, Newman took the opposite tack:

.. Edward Caswall, a priest of the Birmingham Orator, wrote in his copy of the *Grammar*, after discussing it with Newman in 1877: 'Object of the book twofold. In the first part shows that you can believe what you cannot understand. In the second part that you can believe what you cannot absolutely prove'. <sup>7</sup>

It is the illative sense, operating informally, which licenses assent to what we cannot understand and to what we cannot prove. In the last analysis, Newman's Grammar of Assent declares that there are no rules adequate to determine the conditions of legitimate assent; it is only our own personal judgment that determines whom and what to trust. It would be a rhetorical error-perhaps even a logical impossibility-to attempt a formal proof that the illative sense is the centre of informal reasoning. Newman explores three certitudes that resist analysis: that Britain is an island, that the monks of the early Middle Ages did not compose the classics, and that we shall die.8 Other examples and illustrations will be given in the discussion below. In place of formal proof, Newman offers an invitation to the reader to become personally aware of the peculiar inner guide that watches over all of our intellectual activity.

### 2 Tacit knowledge

Newman died on August 11, 1890, in Edgbaston, England. Polanvi was born on March 11, 1891, in Budapest, Hungary, to a Jewish family that was 'talented and intellectual'.9 After completing a degree in medicine, he found himself attracted to Christianity: 'For a time particularly from 1915 to 1920 I was a complety converted Christian on the lines of Tolstov's confession of faith'. 10 Although he was apparently baptised as a Roman Catholic, he later claimed that 'he had never been a communicant of a church'. 11 Polanvi's interest in science led him away from medicine to the study of the adsorption of gases (how gases adhere to the surface of solids), X-ray crystallography, and reaction kinetics. 12 In 1948, Polanyi 'retired from the professional pursuit of science to take up philosophy'.13 Ten years later, he published his epistemic masterpiece, Personal Knowledge: Towards A Post-Critical Philosophy. 14

The phrase 'tacit knowledge' is used only rarely in Personal Knowledge, 15 but becomes more predominant in Polanyi's later writings as he developed the insight that 'All knowledge is . . . either tacit or rooted in tacit knowing'.16 This is why knowledge is always personal knowledge; were it not for the tacit dimension of knowing, there would be no bar to the systematic depersonalisation knowledge. Because the root of knowledge always descends into silence, 'we know more than we can tell'.17 Whatever articulate knowledge we possess is the focal point of tacit, subsidiary awareness:

Viewing the content of these pages from the position reached in *Personal* 

Knowledge and The Study of Man eight years ago, I see that my reliance on the necessity of commitment has been reduced by working out the structure of tacit knowing. This structure shows that all thought contains components of which we are subsidiary aware in the focal content of our thinking, and that all thought dwells in its subsidiaries, as if they were parts of our body. Hence thinking is not only necessarily intentional, as Brentano has taught: it is also necessarily fraught with the roots it embodies. It has a from-to structure.18

The art of knowing lies in the skill of bringing subsidiary awareness to bear on a meaningful focus of attention. Like Newman, Polanyi offers no formal proof that tacit knowledge is the foundation of all knowing. He invites his readers to consider their own experiences of learning skills in order to recognise

the well-known fact that the aim of a skilful performance is achieved by the observance of a set of rules which are nor known as such to the person following them.<sup>19</sup>

Knowledge of a skill is demonstrated by performance rather than by listing the correct rules; his initial examples are things like riding a bicycle, operating glassblowing machine, building a violin, and assessing works of art.20 From these examples, he proceeds to the claim in the next chapter that articulation itself is a skilful performance that builds on a foundation of 'mute abilities'.21 No set of words on the page can transmit this insight; readers must recognise for themselves that knowledge depends on tacit foundations.

### 3 The tacit, personal dimension of the illative sense

Newman adverted to two quite different kinds of tacit knowledge: that which is only accidentally tacit, because it may be converted into an assertion based on formal reasoning, and that which is irreducibly tacit. Simple assent, being practically unconscious, may upon inspection reveal itself as capable of formalisation:

A great many of our assents are merely expressions of our personal likings, tastes, principles, motives, and opinions, as dictated by nature, or resulting from habit; in other words, they are acts and manifestations of self: now what is more rare than self-knowledge? In proportion then to our ignorance of self, is our unconsciousness of those innumerable acts of assent, which we are incessantly making. And so again in what may be almost called the mechanical operation of our minds, in our continual acts of apprehension and inference, speculation, and resolve, propositions pass before us and receive our assent without our consciousness. Hence it is that we are so apt to confuse together acts of assent and acts of inference. Indeed, I may fairly say, that those assents which we give with a direct knowledge of what we are doing, are few compared with the multitude of like acts which pass through our minds in long succession without our observing them.<sup>22</sup>

In the unreflective state of simple assent, we may remain unconscious of the view from which our assents stem: 'Each of us looks at the world in his own way, and does not know that perhaps it is characteristically his own'.<sup>23</sup>

When confronted with this fact of human experience, it is natural to embark on a conversion project to transform simple assent into complex assent.<sup>24</sup> There are some notable successes in this effort, as when we move from a hunch to certitude through a long process of finding or creating connections to verify the insight:

it not infrequently happens, that while the keenness of the ratiocinative faculty enables a man to see the ultimate result of a complicated problem in a moment, it takes years for him to embrace it as a truth, and to recognise it as an item in the circle of his knowledge.<sup>25</sup>

Other fundamental presuppositions resist such illumination. There are some kinds of knowledge that refuse to be cast into formal operations. Just as there are no rules that can replace genius, 26 so there are no rules that can take the place of real apprehension:

This is the mode in which we ordinarily reason, dealing with things directly, and as they stand, one by one, in the concrete, which an intrinsic and personal power, not a conscious adoption of an artificial instrument or expedient; and it is especially exemplified both in uneducated men, and in men of genius,-in those who know nothing of intellectual aids and rules, and in those who care nothing for them,-in those who are either without or above mental discipline.<sup>27</sup>

It is clear that Newman recognises insight as a skilful performance that integrates many subsidiarily known clues:

[A peasant who can accurately predict the weather] does not proceed step by step, but he feels all at once and together the force of various combined phenomena, though he is not conscious of them. Again, there are physicians who excel in the diagnosis of complaints; though it does not follow from this, that they could defend their decision in a particular case against a brother physician who disputed it. They are guided by natural acuteness and varied experience; they have their own idiosyncratic modes of observing. generalising, and concluding; when questioned, they can but rest on their own authority, or appeal to the future event.28

Polanyi's thesis that we always know more than we can tell seems to map perfectly over Newman's observations on the skill of sound judgment:

What I have been saying of Ratiocination, may be said of Taste, and is confirmed by the obvious analogy between the two. Taste, skill, invention in the fine arts—and so, again, discretion or judgment in conduct—are exerted spontaneously, when once acquired, and could not give a clear account of themselves, or of their mode of proceeding. They do not go by rule, though to a certain point their exercise may be analysed, and may take the shape of an art or method.<sup>29</sup>

Both men agree that the mental experiment of translating all assent: commitments) into articulation breaks down in a philosophically significant fashion. If we cannot give a complete account of how we know what we know, we must revise our notions of knowledge and certitude.

Confronted with the fact of tacit knowledge, we face a choice between devaluing our certitudes against an Objectivist standard, or else adopting the view that tacit, personal knowledge is real knowledge. In the latter model, the illative sense is what holds us to our self-set standards of judgment:

Thus in concrete reasonings we are in great measure thrown back into that condition, from which logic proposed to rescue us. We judge for ourselves, by our own lights, and on our own principles; and our criterion of truth is not so much the manipulation of propositions, as the intellectual and more character of the person maintaining them, and the ultimate silent effect of his argument or conclusions upon our minds.<sup>30</sup>

Even though words are used to communicate the argument or conclusions, the act of weighing the value of the propositions employed is a tacit act.

Like Polanyi, Newman saw that the tacit dimension of thought necessarily implies that knowledge remains personal:

. . . unless I am mistaken, they [certitudes known without formal reasoning] are to be found throughout the range of concrete matter, and that supra-logical judgment, which is the warrant for our certitude about them, is not mere common-sense, but the true healthy action of our ratiocinative powers, an action more subtle and more comprehensive than the mere appreciation of a syllogistic argument. It is often called the 'judicium prudentis viri', a standard of certitude which holds good in all concrete matter, not only in those cases of practice and duty, in which we are more familiar with it, but in questions of truth and falsehood generally, or in what are called 'speculative' questions, and that, not indeed to the exclusion, but as the supplement of logic. Thus a proof, except in abstract demonstration, has always in it, more or less, an element of the personal, because 'prudence' is not a constituent part of our nature, but a personal endowment. <sup>31</sup>

Personal knowledge is ultimately rooted in feelings—hence the appropriateness of the metaphor that this self-reflexive, subsidiary awareness is a 'sense'. 32 Newman noted that the 'personal element' in proof is dependent on such intellectual passions:

And the language in common use, when concrete conclusion are in question, implies the presence of this personal element in the proof of them. We are considered to feel, rather than to see, its cogency; and we decide, not that the conclusion must be, but that it cannot be otherwise. We say, that we do not see our way to doubt it, that it is impossible to doubt, that we are bound to believe it, that we should be idiots, if we did not believe. <sup>33</sup>

The passionate roots of our convictions cannot be brought wholly into the light of analysis. Even when we are able to dig them out for examination, they cease to function as tools so long as they are exhumed from the ground of personal knowledge that gave them life. When the mind is operating normally, without straining to catch itself in the act of understanding, it is the illative sense that draws upon the roots of knowledge implicitly, without seeing directly how it is that these lines of passion transmit what is necessary for thought and provide stable frameworks for growth.

Newman spoke of the illative sense as an instinctual operation of the mind. Though the term 'instinct' may be fraught with difficulties, depending on the model used to interpret this term, Newman's primary concern was to call attention to the fact that the vital functions of our minds have a life of their own that we rely on tacitly:

I commenced my remarks upon Inference by saying that reasoning ordinar-

ilv shows as a simple act, not as a process as if there were no medium interposed between antecedent and consequent, and the transition from one to the other were of the nature of an instinct,—that is, the process is altogether unconscious and implicit. It is necessary, then, to take some notice of this natural or material Inference, as an existing phenomenon of the mind; and that the more, because I shall thereby be illustrating and supporting what I have been saying of the characteristics of the inferential process as carried on in concrete matter, and especially of their being the action of the mind itself, that is, by its ratiocinative or illative faculty, not a mere operation as in the rules of arithmetic.<sup>34</sup>

Because it operates tacitly, the 'existing phenomenon' of 'unconscious and implicit' reason may easily be overlooked in theories of consciousness and knowledge. The subsidiaries of thought work precisely as subsidiaries only when they remain buried beneath the level of focal awareness. Newman noted that in proposing to call such resources 'instincts,' he did not mean to imply that the correct employment of intelligence is strictly determined by our nature, as might be supposed from the model of instincts employed by naturalists to explain animal behaviour:

It is difficult to avoid calling such clear presentiments by the name of instinct; and I think they may be so called, if by instinct be understood, not a natural sense, one and the same in all, and incapable of cultivation, but a perception of facts without assignable media of perceiving. There are those who can tell at once what is conducive or injurious to their welfare, who are their friends, who their enemies, what is to happen to them, and how they are to meet it. Presence of mind, fathoming of motives, talent for repartee, are instances of this 2ift.35

Where Polanyi used his distinctions between subsidiary and focal awareness and between tacit and explicit knowledge to call attention to this phenomenon, Newman distinguished between instinct and argument:

It is assent, pure and simple, which is the motive cause of great achievements; it is a confidence, growing out of instincts rather than arguments, stayed upon a vivid apprehension, and animated by a transcendent logic, more concentrated in will and in deed for the very reason that it has not been subjected to any intellectual development.<sup>36</sup>

Even though we can integrate new subsidiaries in order to change the pattern of our focal awareness, the new perceptual framework nevertheless exhibits the quality of being given spontaneously to us by an action of the intellect that is as natural as the operation of any of the bodily senses:

We proceed by a sort of instinctive perception, from premiss to conclusion. I call it instinctive, not as if the faculty were one and the same to all men in strength and quality (as we generally conceive of instinct), but because ordinarily, or at least often, it acts by a spontaneous impulse, as prompt and inevitable as the exercise of sense and memory. We perceive external objects, and we remember past events, without knowing how we do so; and in like manner we reason without effort and intention, or any necessary consciousness of the part which the mind takes in passing from antecedent to conclusion. 37

It seems clear that in his discussion of the illative sense as an instinctive operation, Newman affirmed as a matter of fact that we know more than we can tell about how the mind moves itself to conclusions.

Even though Newman was primarily interested in establishing the tacit dimension of the illative sense as a matter of fact, he provided two substantive sets of observations that help us understand in some measure why we cannot formalise the whole of what we know: first, he held that the things grasped by thought remain fundamentally incommunicable; second, that thought itself is fundamentally non-verbal.

Newman, like Polanyi, believed that apprehension of a reality supplies a contact with, but not complete control over that reality. For Newman, a notion about a thing represents only one abstract aspect of a complex fact:

This is true of other inferences besides mathematical. They come to no definite conclusions about matters of fact, except as they are made effectual for their purpose by the living intelligence which uses them. . . . universals are ever at war with each other; because what is called a universal is only a general; because what is only general does not lead to a necessary conclusion . . . . 'Laret dolus in generalibus'; they are arbitrary and fallacious, if we take them for more than broad views and aspects of things, serving as our notes and indications for judging of the particular, but not absolutely touching and determining facts. Let units come first, and (so-called) universals second; let universals minister to units, not units be sacrificed to universals. John, Richard, and Robert are individual things, independent, incommunicable.38

The act of real apprehension does allow us to integrate these partial aspects into a tacit vision of the whole—in Polanyi's language, to develop a Gestalt that transforms and unifies our perceptions—but the thing remains something other than our view of it:

We cannot see through any one of the myriad beings which make up the universe, or give the full catalogue of its belongings. We are accustomed, indeed, and rightly, to speak of the Creator Himself as incomprehensible; and, indeed. He is so by an incommunicable attribute; but in a certain sense each of His creatures is incomprehensible to us also, in the sense that no one has a perfect understanding of them but He. We recognise and appropriate aspects of them, and logic is useful to us in registering these aspects and what they imply but it does not give us to know even one individual being.<sup>39</sup>

We know more than we can tell, then, because the things that we know are not purely rational constructs, but incommunicable realities.

Newman's second observation that helps to explain the tacit

dimension shows that thought, like things, eludes articulation. This is a truth that may be confirmed by introspection, but cannot be proved to those who refuse to assent on 'reasonings not demonstrative'.40 Newman was convinced that it is wrong to assume that 'whatever can be thought can be adequately expressed in words.'41 Since we cannot inspect others' interior processes, we can only see for ourselves in our own patterns of consciousness that there are indeed 'acts of the mind without the intervention of language'.42 Newman was conscious of the paradox of attempting to speak about that which language cannot adequately express, and he concedes that examples which confirm his position 'are difficult to find, from the very circumstance that the process from first to last is carried on as much without words as with them'.43 Ironically, some of Newman's most beautiful and arresting rhetoric is devoted to the topic of the inadequacy of language to represent the free flow of thought:

Science in all its departments has too much simplicity and exactness, from the nature of the case, to be the measure of fact. In its very perfection lies its incompetency to settle particulars and details. As to Logic, its chain of conclusions hangs loose at both ends; both the point from which proof should start, and the points at which it should arrive, are beyond its reach; it comes short both of first principles and concrete issues. Even its most elaborate exhibitions fail to represent adequately the sum-total of considerations by which an individual mind is determined in its judgment of things; even its most careful combinations made to bear on a conclusion want that steadiness of aim which is necessary for hitting it. As I said when I began, thought is too keen and manifold, its sources are too remote and hidden, its path too personal, delicate, and circuitous, its subject-matter too various and intricate, to admit of the trammels of any language, of whatever subtlety and of whatever compass. 44

It is very appropriate that personal knowledge can only be recognised and accredited by 'personal reasoning':

Anyhow, there is a considerable 'surplusage,' as Locke calls it, of belief over proof, when I determine that I individually must die. But what logic cannot do, my own living personal reasoning, my good sense, which is the healthy condition of such personal reasoning, but which cannot adequately express itself in words, does for me, and I am possessed with the most precise, absolute, masterful certitude of my dying some day or other.

It is the illative sense, employing the 'more subtle and elastic language of thought', 46 which tacitly governs such personal reasoning and which secures personal certitude about matters of fact:

Great as are the services of language in enabling us to extend the compass of our inferences, to test their validity, and to communicate them to others, still the mind itself is more versatile and vigorous than any of its works, of which language is one, and it is only under its penetrating and subtle action that the margin disappears, which I have described as intervening between verbal argumentation and conclusions in the concrete. It determines what science cannot determine, the limit of converging probabilities and the reasons sufficient for a proof. It is the ratiocinative mind itself, and no trick of art, however simple in its form and sure in operation, by which we are able to determine, and thereupon to be certain, that a moving body left to itself will never stop, and that no man can live without eating. 41

When the mind turns in on itself to discover the principles of its own operation, it paradoxically takes on the character of a thing, and resists analysis: 'As we cannot see ourselves, so we cannot well see intellectual motives which are so intimately ours, and which spring up from the very constitution of our minds . . .'48 It seems clear that one reason it is appropriate to say we know more than we can tell is that we can think more than we can say.

The essential incommunicability of things and thought creates a situation in which even our words themselves may mean more than we can tell. Articulation enables joint thought, but does not control it completely:

It will be our wisdom to avail ourselves of language, as far as it will go, but to aim mainly by means of it to stimulate, in those to whom we address ourselves, a mode of thinking and trains of thought similar to our own, leading them on by their own independent action, not by any syllogistic compulsion Hence it is that an intellectual school will always have something of an esoteric character; for it is an assemblage minds that think; their bond is unity of thought, and their words become a sort of tessera, not expressing thought, but symbolising it.50

Real apprehension, not notional apprehension, is the source of knowledge of realities. Since we may see more than we can say, there is room for development of understanding even while the language of a school is preserved:

Nor is it possible to limit the depth of meaning, which at length he sone who has real apprehension] will attach to words, which to the many are but definitions and ideas. Here then again, as in the other instances, it seems clear, that methodical processes of inference, useful as they are, as far as they go, are only instruments of the mind, and need, in order to their due exercise, that real ratiocination and present imagination which gives them a sense beyond their letter, and which, while acting through them, reaches to conclusions beyond and above them. Such a living organon is a personal gift, and not a mere method or calculus.51

Like Polanyi, Newman recognised that the tacit dimension maintains priority over articulation even in the act of speaking.

Since formal operations cannot govern the full range of assent we proceed by means of the method of verisimilitude<sup>52</sup> or the cumulation of probabilities: in the modern

idiom, if it walks like truth and talks like truth, it probably is truth:

It is plain that formal logical sequence is not in fact the method by which we are enabled to become certain of what is concrete; and it is equally plain, from what has been already suggested, what the real and necessary method is. It is the cumulation of probabilities, independent of each other, arising out of the nature and circumstances of the particular case which is under review; probabilities too fine to avail separately, too subtle and circuitous to be convertible into syllogisms, too numerous and various for such conversion, even were they convertible. 53

Although Newman called this a 'method,' it is clear that there is very little that is methodical about it, since there are no rules about how many converging probabilities one must discover in order to make the decision that what seems like truth is truth. When a pioneer of thought is breaking away from the mainstream of opinion, there may be many more lines pointing away from the new position than point toward it. Polanyi's theory of how subsidiaries tacitly bear upon the focus of attention to form Gestalten parallels Newman's description of the informal reasoning that leads to certitude:

Next, from what has been said it is plain, that such a process of reasoning is more or less implicit, and without the direct and full advertence of the mind exercising it. As by the use of our eyesight we recognise two brothers, yet without being able to express what it is by which we distinguish them; as at first sight we perhaps confuse them together, but, on better knowledge, we see no likeness between them at all; as it requires an artist's eye to determine what lines and shades make a countenance look young or old, amiable, thoughtful angry or conceited, the principle of discrimination being in each case real, but implicit; -so is the mind unequal to complete analysis of the motives which carry it on to a particular conclusion, and is swayed and determined by a body of proof, which it recognises only as a body,

and not in its constituent parts.54

When the parts of the proof are brought out of the tacit dimension into focus, they lose the character of subsidiaries and cease to have the power of bearing on the conclusion—the seamless whole falls into pieces and seems incapable of being reassembled because the parts that constitute the whole seem so very different under analysis than they do when functioning as subsidiaries to real apprehension:

If it is difficult to explain how a man knows that he shall die, it is not more difficult for him to satisfy himself how he knows that he was born. His knowledge about himself does not rest on memory, nor on distinct testimony, nor on circumstantial evidence. Can he bring into one focus of proof the reasons which make him so sure?<sup>55</sup>

When a subsidiary is put at the focus of attention, it is found to be wanting. It no longer draws strength from the tacit merger with other suggestive patterns of thought, and it is clear under the light of analysis that it does not arrive at the conclusion toward which it tends.

Newman's favourite visual image for the cumulation of probabilities is drawn from Newton's illustration of what he means by a 'limit':

This being the state of the case, the question arises, whether, granting that the personality (so to speak) of the parties reasoning is an important element in proving propositions in concrete matter, any account can be given of the ratiocinative method in such proofs, over and above that analysis into syllogism which is possible in each of the steps in detail. I think there can; though I fear, lest to some minds it may appear far-fetched or fanciful; however, I will hazard this imputation. I consider, then, that the principle of concrete reasoning is parallel to the method of proof which is the foundation of modern mathematical science, as contained in the celebrated lemma with which Newton opens his Principia. We know that a regular polygon, inscribed in a circle, its sides being continually diminished,

tends to become that circle, as its limit; but it vanishes before it has coincided with the circle, so that its tendency to be the circle, though ever nearer fulfilment, never in fact gets beyond a tendency. <sup>56</sup>

In the same way, converging lines of thought approach the limit of becoming proofs without ever ceasing to be mere probabilities when examined in isolation from the rest of the picture, just as any segment of Newton's polygon will appear as a straight rather than a curved line under sufficient magnification. Newman continued:

In like manner, the conclusion in a real or concrete question is foreseen and predicted rather than actually attained; foreseen in the number and direction of accumulated premisses, which all converge to it, and as the result of their combination, approach it more nearly than any assignable difference, yet do not touch it logically (though only not touching it,) on account of the nature of its subject-matter, and the delicate and implicit character of at least part of the reasonings on which it depends. It is by the strength, variety, or multiplicity of premisses, which are only probable, not by invincible syllogisms, by objections overcome, by adverse theories neutralised, by difficulties gradually clearing up, by exceptions proving the rule, by unlooked-for correlations found with received truths, by suspense and delay in the process issuing in triumphant reactions,-by all these ways, and many others, it is that the practised and experienced mind is able to make a sure divination that a conclusion is inevitable, of which his lines of reasoning do not actually put him in possession. 57

According to the rules of strict logic, it is clear that the two figures are not identical and never can be, given the original definitions of a circle and a regular polygon. From the standpoint of informal reasoning, one may decide that some differences make no difference for all practical purposes. A decision is required in order to cross the gap between what logic supplies and inference suggests, but it is a

decision perfectly proportionedto the capacity of the mind to judge that the risks involved are negligible. To use the metaphor of an asymptote, one might say that the converging lines of belief never completely join the axis of reason, but the further one follows the convergence, the smaller the step is from the series of uncertainties to certitude.

In Newman's view, it is the illative sense that determines whether assent should be granted on the basis of the accumulation of probabilities:

It is by the strength, variety, or multiplicity of premisses, which are only probable, not by invincible syllogisms . . . that the practised and experienced mind is able to make a sure divination that a conclusion is inevitable, of which his lines of reasoning do not actually put him in possession. <sup>58</sup>

Newman characterises this process as 'reasoning from wholes to wholes,' all of which are apprehended tacitly and personally:

I say, then, that our most natural mode of reasoning is, not from propositions to propositions, but from things to things, from concrete to concrete, from wholes to wholes. Whether the consequents, at which we arrive from the antecedents with which we start, lead us to assent or only towards assent, those antecedents commonly are not recognised by us as subjects for analysis; nay, often are only indirectly recognised as antecedents at all. Not only is the inference with its process ignored, but the antecedent also. To the mind itself the reasoning is a simple divination or prediction; as it literally is in the instance of enthusiasts, who mistake their own thoughts for inspirations. 59

Each whole that is brought to bear upon another whole may reveal itself under analysis to be the fruit of an illation, so that the project of untangling the lines of thought becomes hopelessly snarled with interconnections. The mind tires of the effort, but every exploration of the phenomenon suggests that the same kind of difficulty of analysing

an integration will be found in every subsequent instance.

The mind is like a double mirror, in which reflections of self within self multiply themselves till they are undistinguishable, and the first reflection contains all the rest. <sup>60</sup>

There is no point at which we may say that, at last, we have got clear of the obligation to rely on tacit integrations of apprehension. Personal knowledge—'personal certitude' in Newman's terms - —ends on the illative sense:

In the extract which I make from it [an argument about literary authorship], we may observe the same steady march of a proof towards a conclusion, which is (as it were) out of sight;—a reckoning, or a reasonable judgment, that the conclusion really is proved, and a personal certitude upon that judgment, joined with a confession that a logical argument could not well be made out for it, and that the various details in which the proof consisted were in no small measure implicit and impalpable. <sup>61</sup>

In the course of a heated argument, when one person continuously poses the question, 'How do you know that?', the only honest answer 'I just know it'. Like Polanyi, Newman's grammar licenses us to believe what we cannot prove. The illative sense is that which marshals the resources of the tacit dimension so that we may obtain, correct, and develop personal knowledge.

Ian Ker brought together three key images that Newman used to illustrate how inadequate arguments bound together by an illative assessment take on a strength that no one of them possesses alone:

The 'proof of Religion,' he wrote in a letter in 1861, using a striking analogy, 'I liken . . . to the mechanism of some triumph of skill . . . where all display is carefully avoided, and the weight is ingeniously thrown in a variety of directions, upon supports which are distinct from, or independent of each other' [LD xxiv, 460]. Or, as he later explained by an even more compelling analogy, 'The best illustration . . . is that of a cable

which is made up of a number of separate threads, each feeble, yet together as sufficient as an iron rod' which represents 'mathematical or strict demonstration' [LD xxi, 146]. The cable will certainly break if enough threads give way, but if the threads hold, then the cable is as strong as any metal bar. For, to use yet another image, a cumulation of probabilities is like a 'bundle of sticks, each of which . . . you could snap in two, if taken separately from the rest' [LD xxiv, 146].62

In other 'grammars of assent,' one begins with clear and distinct ideas and attempts to create 'chains' of argument; in such formal systems the argument is never any stronger than the weakest link in the chain Newman begins with ideas that cannot be completely expressed in words and supposes that even those trains of thought which stop short of the goal nevertheless make a definite contribution to the final act of judgment. When the pieces of the intellectual mechanism are assembled, or the strands of thought woven into a cable, or the ranches of probability gathered into a bundle, one can no longer see each component separately and cannot directly inspect its contribution to the function of the whole.

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#### Notes:

- \* Previously published in John Henry Newman: Theology and Reform, ed. M. E. Allsop and R. R. Burke (New York, Garland Publishing Inc., 1992) and reprinted with the kind permission of the ediors.
- 1. This claim is patterned on John T. Ford's insight into the nature of Newman's *Essay on the Development of Doctrine*, which was developed in a course entitled, 'Newman the Theologian'.
- 2. Edited and with Introduction by Nicholas Lash (Notre Dame: University of Notre Dame Press, 1979). 'Illative sense' is etymo-

- logicalty related to 'inference'—the fourth principal part of the Latin verb 'infero' is 'illatus.'
- 3. Zeno, John Henry Newman: Our Way to Certitude: An Introduction to Newman's Psychological Discovery: The Illative Sense and His 'Grammar of Assent' (Leiden: E.J. Brill, 1957), 2, 263: in a letter to Charles Meynell, November 17, 1869.
- 4. In the ninth chapter of Grammar, Newman quotes from his 1837 work, The Propherital Office of the Church, and then uses the term 'illative sense' to sum up his reflections on informal reasoning and to demonstrate the continuity of his thought (Grammar, 296-7). Zeno notes that the 'doctrine of the illative sense may be found in the University Sermons when [Newman] speaks about implicit and explicit reason' (Certitude, 13; cf. 168). In the Grammar, Newman makes a parallel distinction between informal and formal inference, and speaks of informal inference as one of the distinctive operations of the illative sense (Grammar, 283).
- 5. Newman's University Sermons: Fifteen Sermons Preached before the University of Oxford, 1826-43, with introduction D.M. MacKinnon and J.D. Holmes (London: S.P.C.K, 1970; third edition, 1871), 257.
- 6. Grammar, 276-7; cf. 283, 321.
- 7. Lash, introduction to the *Grammar*, 12. The source of the Caswall quotation is C.S. Dessain, *John Henry Newman* (London: Adam and Charles Black, 1966), 148; Lash continues, 'On these two propositions, cf. *Grammar*, 128, 209'.
- 8. Grammar, 234-239.
- 9. Richard Gelwick, The Way of Discovery: An Introduction to the Thought of Michael Polanyi (New York, Oxford University Press, 1977), 4, 31-2.
- Scott, 'The Question of Religious Reality: Commentary on the Polanyi Papers,' Zygon 17

- (1982) 85-6. 11. Ibid., 86. 12. KB, 93, 97, 104. 13. KB, 87.
- 14. Chicago: University of Chicago Press, 1958.
- 15. The phrase Polanyi used most often in Personal Knowledge is the 'tacit coefficient' of knowing and speaking (86, 169, 250, 257, 259, 336). He also spoke of 'tacit assent' (95, 28 266, 312), 'tacit afiirmations' (131), 'tacit judgments' (205, 206), 'racit endorsements' (207, 268) and 'tacit commitments' (251). 'Tacit knowledge' (169) or 'tacit knowing' (264) serves in Polanyi's later writings and in this essay as a useful reminder of all that Polanyi had to say about the 'ineffable domain' of knowledge (87). Marjorie Grene noted that tacit knowing is subsidiary to the notion of commitment in Personnl Knowledge (introduction to Knowing and Being, xiv).
- 16. M, 1; emphasis added. The same claim appears in nearly identical form in KB 195. In 1964, Polanyi wrote a new introduction to SFS, which had originally been published in 1946 and which has no reference to 'tacit knowledge' or the 'tacit coefficient' or to any of the parallel expressions that appear in PK. In this introduction, Polanyi observed that the word 'intuition' plays the same role in the earlier work that 'tacit coefficient' does in the later, and maintained that 'This conception of reality and of the tacit knowing of reality underlies all my writings' (10). If so, the insight remains fundamentally the same although the language used to express it varies somewhat through Polanyi's philosophical career.
- 17. TD, 4.
- 18. TD, x.
- 19. PK, 49.
- 20. PK, 50, 52, 53, 55.
- 21. PK, 70.
- 22. Grammar, 157.
- 23.Grammar, 291.
- 24. This 'conversion project' comes

- to us naturally as well as through the recommendations of critical philosophies: 'Our inquiries spontaneously fall into scientific sequence, and we think in logic, as we talk in prose, without aiming at doing so. However sure we are of the accuracy of our instinctive conclusions, we as instinctively put them into words, as far as we can . . .' (Grammar, 228).
- 25. Grammar 143.
- 26. 'In saying this, I am not disposed to deny the presence in some men of an idiosyncratic sagacity, which really and rightly sees reasons in impressions which common men cannot see, and is secured from the peril of confusing truth with make-belief; but this is genius, and beyond rule' (Grammar, 81).
- 27. Grammar, 261.
- 28. Grammar, 261-2. Newman went on to discuss similar skill in lawyers, detectives, and similar experts, as well as in 'reading' the character of those with whom we come in contact in our personal affairs.
- 29. Grammar, 266.
- 30. Grammar, 240.
- 31. Grammar, 251.
- 32. Newman did not directly use the (admittedly provocative and contemporary) term 'feelings'. Instead, he used various forms of the verb 'to feel,' in order to distinguish the quality of illation from that of formal argument, as in this passage: "... "rational" is used in contradistinction to argumentative, and means 'resting on implicit reasons,' such as we feet, indeed, but which for some cause or other, because they are too subtle or too circuitous, we cannot put into words so as to satisfy logic' (Grammar, 256).
- 33. Grammar, 251.
- 34. Grammar, 260.
- 35, Grammar, 263,

Continued on p. 148.

# SCIENCE. FAITH AND SOCIETY REVISTED

# Has the growth of the scientific community in the ensuing fifty years affected the status of Michael Polanyi's views on authority in science?

# Brian G. Gowenlock

n January 1946 I commenced my work as a research chemist as one of three research students for whom Michael Polanvi was the senior research supervisor. (For the next major intake of research students in September 1947 I suspect that he was no longer cited in this manner.) His interests were primarily focused upon the wider philosophical implications of the pursuit of science and, as a result, the impact upon me of his purely chemical concerns, though considerable, was intermittent rather than continuous. Some of his research students thought that the sentence generally included in their theses thanking MP 'for his interest in this work' should be modified by the adjective 'quantised'. Daily supervision was exercised by younger members of the lecturing staff most of whom had themselves been research students of his in the exciting post-1933 era in Manchester and had imbibed much of his attitudes to research. Their experience in industry and in other universities added to their deep respect for Michael Polanyi's insight into the choosing and execution of research problems and they coupled this with a critical attitude to the details of experimental methods that were employed in the laboratories. Early in 1946 the Sherratt and Hughes University book shop displayed copies of the Riddell Memorial Lectures, Science, Faith and Society: for the modest sum of 2s 6d I was introduced to MP's profound reflections on the structure of authority in science and saw how these were integrated into his approach to problems in chemical research. Over the years I turned to SFS for

stimulation and this was enhanced when, in 1965, MP presented me with a signed copy of the 2nd edition. In the fifty years since the first edition of SFS there have been many developments in scientific research, not least among which have been the considerable growth in the size of the research community, the multiplication of scientific journals and the costs of research equipment. I am therefore faced with the question of whether MP's views in SFS reflect only the state of scientific research in the period of his major involvement, i.e. 1920/ 45, or whether they are still cogent and relevant in the changed circumstances of the present. This may be seen as a part of the concern that any philosophy of science should not be dependent upon the sociological conditions operative in a particular era. The widespread recognition given to MP's philosophy of science, evidenced in this and other journals, emphasises the importance of such an approach. My debt to MP is considerable but I believe that it is best expressed by critical examination of his views. In this way we may be better able to focus upon the enduring aspects of his contribution to our understanding of the role of science.

# 1 Authority and conscience in scientific apprenticeship

This second chapter of SFS ('Authority and Conscience') introduces MP's ideas concerning the premisses of science and he pays particular attention to the role of 'apprenticeship' to a 'master' in the

development of the independent scientist. An illustration which he employs may be considered.

Research in the chemistry of carbohydrates in Britain has been almost entirely the work of four scientists, Purdy, Irvine, Haworth and Hirst, who followed each other in single file as masters and pupils (p.44).

At this time Professor E. L. Hirst was MP's colleague in the Manchester department and in 1936 this was a meaningful generalisation to apply to the progress of British studies in carbohydrate chemistry, It could not be made in that form now, nor within a relatively few years of being written, because of the considerable growth both in the numbers of chemists working in this field, and in the centres where such work was carried out. The apprenticeship role appears elsewhere in MPs writings and the present size of the research community prompts the question as to whether he is enunciating a fundamental issue for the scientist or describing the position that held good in the years before 1945. The increase in the mobility of young scientists through post-doctoral research positions has led to much greater interchange of research techniques and approaches than was evident in the inter-war period, although post-doctoral workers from other countries joined MP both in Berlin and in Manchester. A further question arises from consideration of MP's own development as a scientist, namely 'Who was MP's scientific "master"?' Perhaps this should be rephrased in terms such as 'Was MP an original who did not need a scientific "master"?'. It is particularly strik-

ing, and in the context of most scientific career developments most unusual, that of his forty publications in the period 1910-1921 when, aged 19 - 30, he was the sole author of thirty two of these and that the areas of published research embraced bio-chemistry, thermodynamics, adsorption, reaction kinetics, conductance and X-ray diffraction. It should also be noted that his first doctorate (1913) was in medicine and this was followed by a year's study of chemistry in the Technische Hochschule in Karlsruhe. Following this he practised as a medical officer in the Austro-Hungarian Army during the First World War<sup>1</sup>. Most of the early papers in the area of x-ray diffraction were co-authored: this work, having its. origin in an earlier observation by R. O. Herzog, was taken up by MP at Herzog's suggestion so that the later investigations were pursued by MP with great originality as leader of a small group of collaborators at the Kaiser-Wilhelm Institute for Fibre Research in Berlin-Dahlem. His studies in adsorption and in reaction kinetics appear to have been entirely his own personal contributions. MP's own path of development emphasises the significance of his description in SFS of the formation of a scientist.

His intuitive realisation of a great system of valid thought and of an endless path of discovery sustain him in laboriously accumulating knowledge and urge him on to penetrate into intricate brain-racking theories. Sometimes he will also find a master whose work he admires and whose manner and outlook he accepts for his guidance. Thus his mind will become assimilated to the premisses of science. The scientific intuition of reality henceforth shapes his perception. He learns the methods of scientific investigation and accepts the standards of scientific value (Second edition p. 44, my italics).

Such considerations of becoming a scientist, that recognition of the authority of that which one is going on to learn, are unaffected, I be-

lieve, by the total size of the international research community. Within any research group it will, however, be strongly influenced by the mutual interaction of the members of the group, the degree of genuine conviviality that is present. It is not unknown for an individual to have a sense of being last within a research group and for personal interaction to diminish because opportunities of interpersonal contact are not sufficiently fostered. The growth of specialisms within chemistry does allow a corrective to occur through research meetings bringing together the leading practitioners together with the members of their research teams so that a supplementary exercise of conviviality can take place in a manner that was often far less frequent in the smaller research communities of sixty or more years ago.

# 2 Individual conscience and the general scientific consensus

My personal reactions in 1946 to MP's exposition of these themes in Chapter 2 of SFS were that they described the atmosphere which I was breathing within the Manchester Chemistry Department: they described the actual experiences of university chemists. Fifty years on I would still give general assent to that but here I consider that the very large growth in the scientific community and in research publications coupled with the much greater relative costs of scientific research have introduced a further dimension to MP's argument. It is undoubtedly true that 'no proposed contribution to science has a chance of becoming generally known unless it is published in print' but is it still the case that 'its chances of recognition are very poor unless it is published in one of the leading scientific journals' (SFS p.47)? The bulk of MP's papers for the years 1934-45 are published in the Transactions of the Faraday Soci-

ety and in Nature whereas in the vears 1926-33 the analogous Zeitschrift für physikalische Chemie and Die Naturwissenschaften assume the same predominant position. The choice of journals at that time was much less than now where the considerable growth of scientific publishing has been shared between the more specialised publications of learned societies and those of commercial publishers. Also the facilities for rapid preliminary publication have been enhanced considerably. The responsibilities of editors and of referees remain unaltered. My experience as both author and referee suggests that MP's comment

Two scientists acting unknown to each other as referees for the publication of one paper usually agree about its approximate value (SFS second edition p. 51)

requires some modification. Often this arises because of the very wide range of published information to be considered in assessing both the originality and the significance of the material presented in a paper. It is more difficult now than fifty years ago to be certain in every judgment arrived at on a paper. This is even more difficult when the discontinuation of the holdings of many journals becomes a common feature of university life, reflecting financial exigencies. The ideal referee needs such tools at hand to assist judgment: perhaps he was more likely to possess these in the period from 1920 to 1945. The occasional occurrence of the rejection of material shown later to be soundly based can be documented, as can the acceptance of work shown later to be flawed. MP was aware of such possibilities but although they demonstrate the necessary limitations of his argument they in no wise invalidate the vital importance of refereeing within the scientific and academic communities nor do they detract from MPs argument that authority is spread throughout the scientific community where those who exercise that authority are themselves subject to

Present popular attitudes in Britain are far less respectful of authority structures in society than in the past. There is often a sense that leaders cannot command respect without having proved their capacity to earn it and the credentials to make it acceptable. This is frequently apparent in the area of financially important decisions. In SFS the importance of authority in the financial dimension of research is acknowledged, see e.g.

The establishment of opportunities for research in the form of buildings, laboratories, research funds, and salaries is also fashioned (within the

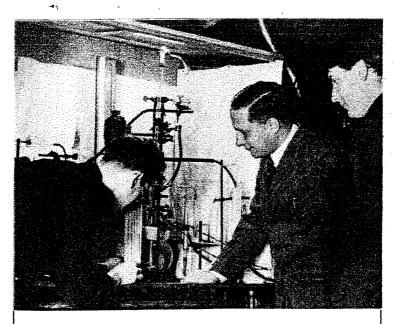
limits of the total available resources) in accordance with the advice of scientists. They will try to assure a maximum rate of progress of science as a whole by allocating resources to the most active growing points of science (p.48 second edition).

MP does not specifically ask how this can be achieved in those cases where the persons in authority who make funding decisions are themselves applicants for funding. He does, however, lay considerable stress on the personal integrity of any who have to exercise such a role. The language which he uses is

the language of commitment and dedication: it has overtones that can. best be described as religious. It gives both direction and warning to those scientists who exercise authority within the varied structures of their science. I believe that the values which MP thereby promotes are even more important for the health of the sciences than they were in the much smaller research communities of the inter-war period. Examples of these values are many but they are well worth repetition. Should only lip service

be given to them or if they are treated as subsidiary to personal advantage then the integrity and effectiveness of scientific activities would be put in question, Thus MP emphasises that scientific 'opinion represents only a temporary and imperfect embodiment of the traditional standards of science' (p.53). In even stronger terms he states

A community of scientists in which each would act only with an eye to please scientific opinion would find no scientific opinion to please. Only if scientists remain loyal to scientific ideals rather than try to achieve success with their fellow scientists can they form a community which will uphold these ideals (p.54).



Polanyi in his laboratory at Manchester, c. 1940, with Dr M.G. Evans (right) and a student. Photo courtesy: Prof. John Polanyi, FRS

In a time of research assessment exercises and desire for research funding support, MP's views may seem to some quaintly old-fashioned. In my opinion they demand a high level of personal integrity for scientists today if they are to be considered a realistic description of the outworking of the scientific conscience.

The tradition of science must be upheld as an unconditional demand if it is to be upheld at all. It can be made use of by scientists only if they put themselves at its service. It is a spiritual reality that stands over them and demands their allegiance (p. 54).

When he traces the development of scientific professional conscience in career terms he notes how the scientist

has to form judgements that are ultimately guided by the ideal of science as interpreted by his conscience. Finally as a partner in the administration of science he fosters the spontaneous growth of science by extending his love and solicitude to every new original effort; thus again surrendering to the reality and inherent purpose of science.

In that concluding sentence he does not consider the financial dimension of research support and some

would therefore feel that it does not accord with their own experiences in times of financial exigency and the consequent highly competitive attitudes necessary to be able to implement any research programme. In expressing these views it appears that I underline MP's contention that

processes of creative renewal always imply an appeal from a tradition as it is to a tradition as it ought to be (p. 56).

In 1946 when SFS was first published my own research problem served to illustrate how the problems of authority and conscience were demonstrated by MP

within a specific area of chemical kinetics applied to the general theme of structure and reactivity. From the late 1920's MP had developed a technique (the sodium 'flame' method) to study the rate of the gaseous reaction between sodium and an organic halide and his small book *Atomic Reactions* described the results obtained for the reaction

 $R-Cl + Na \rightarrow R + Cl-Na^+$ .

The rate of the reaction was dependent upon the character of the organic group R and the change in

the reaction rate could be ascribed to the change in the strength of the bond between the carbon atom and the chlorine atom. Thus the stronger the C-C1 bond the slower was the rate of reaction. These studies were continued in Manchester from 1933 onwards. At that time there was another view concerning the strength of bonds within related organic compounds. This was the so-called Additivity Rule of Bond Energies which was based upon thermo-chemical evidence which assumed that the energy of a given kind of bond was constant. On this basis the C-C1 bond, for example, would exhibit a constant bond energy in all molecules. The weakest carbon-halogen bond was known to be the C-I bond and MP decided to study the gas phase decomposition of organic iodides using a reaction system in which an organic iodide would be picked up at low pressure in a flowing stream of nitrogen and passed through a heated tube at temperatures sufficient to decompose a relatively small fraction of the iodide. The extent of decomposition was measured by the amount of iodine and hydrogen iodide produced and from this and the time spent by the iodide in passing through the tubular reactor it was possible to obtain the bond breaking energy of the C-I bond. There were a small number of necessary assumptions that had to be made and the results of this work, carried out in 1938-40, were very interesting although there were a number of doubtful features both experimental and theoretical remaining to be resolved. The experimental studies by E. T. Butler could not be continued beyond 1940 due to the war but the results and their implications were disseminated through three articles in Nature<sup>3</sup> and one in the Transactions of the Faraday Society<sup>4</sup>. In 1942, after much thought, MP decided that a paper should be submitted to the Faraday Society despite the unresolved problems concerning the experimental detail. It was eventually

published in the *Transactions* (1943, 39, 19) without any revision but on the opening page it contained an unusual footnote. In the light of MP's views on authority within science, the comments made in this footnote are highly significant. His views on the structure of scientific authority were already well developed and presumably systematised in discussion with like-minded friends such as the group around J H Oldham in The Moot. The footnote reads as follows.

How far we have, here, succeeded in establishing the correct values of bond energies may be open to doubt. However, the confirmation which our results for (CH3-I) and (C2H5-I) have recently gained by quite independent observations; the close correspondence of the variations of estimated bond-strength with predicted of formation heats and the accompanying changes in dipole strength for a series of hydrocarbons and their derivatives; the correspondence between estimated bond energies and activation energies of the Na-reaction—all these features together have convinced us that we may be permitted to disregard for the time certain gaps in the kinetic evidence of the pyrolysis experiments. Nevertheless, we would have preferred to extend this evidence before publication—especially as this would have saved much tiresome discussion of details-if the extension were at all possible. However, the experiments had to be discontinued in consequence of the war for an indefinite time and postponement of their publication would involve a serious risk of their complete loss. In view of the variety of subjects on which they seem to throw light, we have felt their publication in the present form to be desirable.

This is an unusual statement and as such illustrates the highly refined conscience of its author who had a strong *feeling* that the bond energy values which had resulted from these experiments were not only significant but also correct. He was also aware that there were problems in accepting the validity of the experiments. In 1945 it became

possible to re-investigate the pyrolysis of ethyl iodide (F. Moore) and benzyl iodide (Dr M Szwarc), and in 1946 I continued the work on ethyl iodide, the group being guided by the experimental genius of Dr Charles Horrex. Two years' work demonstrated the complexities of these systems and I was glad to leave iodides behind me as a research problem that I did not wish to see again. There remained the question of the meaningfulness of the original results and the other bond energies derived therefrom. Evidence from other sources led to the conclusion that the overall pattern of values contained a high degree of insight into the manner in which the dissociation energies of carbon-containing bonds showed gradations with the structure of the organic group. In the two tables which follow the values of Butler and Polanyi are presented and compared with the presently accepted values<sup>5</sup>. MP's insight into this began in the early 1930's: it had its basis in experimental observations but it was sharpened by his gift for intuitive perception. It prompts a further question relating to authority within science. Has intuitive perception any authority in science? If so, who can exercise it and how is it tested? MP turns to such problems in his chapter on 'A Society of Explorers' in The Tacit Dimension where he speaks of 'man's capacity for anticipating the approach of hidden truth' (p. 76). To pursue this question further would, however, require another article.

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#### Notes:

 For details see The Logic of Personal Knowledge, Routledge and Kegan Paul, 1961, Chapters
 and 3 and Bibliography; and also, Polanyi, R. T. Allen, Claridge Press, London, 1990.

- 2. Williams and Norgate, London, 1932.
- 3. E T Butler and MP, Nature, 1940, 146, p.129; E C Baughan and MP, Nature, 1940, 146, p.685; MP, Nature, 1943, 151, p.96.
- 4. E C Baughan, M G Evans and MP, Transactions of the Faraday Society, 1941, 37, p.377.
- 5. Due to J Berkowicz, G B Ellison and D Gutman, J. Phys. Chem., 1993, 98, p.2744, to which my attention has been directed by Professor Robin Walsh of the University of Reading who comments that the main changes in fifty years are the increases in values which are small for CH<sub>3</sub>-X but become successively larger up to (CH<sub>3</sub>)<sub>3</sub>C-X.

Butler's and Polanyi's bond dissociation energies D(R-X) in kcal/mole (1943)						Modern values of bond dissociation energies D(R-X) in kcal/mole (1994)					
R	D(R-I)	D(R-I) D(R-H) D(R-CH <sub>3</sub> )D(R-Br) D(R-OH)				R	D(R-I)	D(R-H)	D(R-CH <sub>3</sub> )D(R-Br) D(R-OH)		
CH <sub>3</sub>	54.0	102.5	87.0	68.5	86.5	CH <sub>3</sub>	57.0	104.8	89.6	71.0	92.2
CH <sub>3</sub> CH <sub>2</sub>	52.0	97.5	85.0	67.0	87.0	$CH_3CH_2$	56.5	101.1	88.7	70.4	94.5
(CH <sub>3</sub> ) <sub>2</sub> CH	46.5	89.0	78.0	61.0	84.5	$(CH_3)_2CH$	56.9	98.6	88.4	70.9	96.1
(CH <sub>2</sub> ) <sub>2</sub> C	45.0	86.0	75.5	60.0	85.0	$(CH_3)_3C$	55.0	96.5	87.4	70.6	96.4

# Continued from p. 143

- 36. Grammar, 177. Along similar lines, Newman distinguishes between tacit, 'mental reasoning' and formal, 'verbal reasoning' (Grammar, 212).
- 37. Grammar, 209.
- 38. Grammar, 223.
- 39. Grammar, 226.
- 40. Grammar, 150.
- 41. Grammar, 212.
- 42.Grammar, 220.
- 43. Grammnr, 254-5.
- 44. Grammar, 227.
- 45. Grammar, 227.
- 46. Grammar, 281-2. This phrase was used in the first of four brief observations that Newman made about the exercise of the illative sense.
- 47. Grammar, 282-3.
- 48. Grammar, 264-5.
- 49. This is another favorite slogan of Polanyi's: 'I can say nothing precisely. The words I have spoken and am yet to speak mean nothing: it is only I who mean something by them. And, as a rule, I do not focally know

- what I mean, and though I could explore my meaning up to a point, I believe that my words (descriptive words) must mean more than I shall ever know, if they are to mean anything at all' (PK, 252).
- 50. Grammar, 245.
- 51. Grammar, 250.
- 52. Newman used this phrase in his 1871 Preface to the third edition of the University Sermons: 'Again: there are two methods of reasoning-a priori, and a posteriori; from antecedent probabilities or verisimilitudes, and from evidence, of which the method of verisimilitude more naturally belongs to implicit reasoning, and the method of evidence to explicit' (xii). 'Faith, viewed in contrast with Reason in these three senses, is implicit in its acts, adopts the method of verisimilitude, and starts from religious first principles . . . The Author has lately pursued this whole subject at considerable
- length in his "Essay in Aid of a Grammar of Assent" (xvi-xvii). In the Grammar, Newman correlates the notions of 'inference' and 'verisimilitude': 'Inference is the conditional acceptance of a proposition, Assent is the unconditional; the object of Assent is a truth, the object of Inference is the truth-like or a verisimilitude. The problem which I have undertaken is that of ascertaining how it comes to pass that a conditional act leads to an unconditional' (209).
- 53. Grammar, 230.
- 54. Grammar, 232.
- 55.Grammar, 239.
- 56. Grammar, 253.
- 57. Grammar, 253-4.
- 58. Grammar, 254.
- 59. Grammar, 260-1.
- 60.Grammar, 162.
- 61. Grammar, 259.
- 62. The Achievement of John Henry Newman (Notre Dame: University of Notre Dame Press, 1990), 50-1. 63. PK, 15-16.

# CRITICAL NOTICE

## A POLANYIAN THEOLOGY

# Julian W. Ward

#### Joan Crewdson:

Christian Doctrine in the Light of Michael Polanyi's Theory of Knowledge: A Personalist Theology.

Toronto Studies in Theology, Vol. 66. Lewiston (NY) and Lampeter-The Edwin Mellen Press, 1994; xii + 446pp. ISBN 0-7734-9150-3; £45.

This book has been many years in the making. It has its origins in a substantial Oxford B.D. thesis which Joan Crewdson completed in 1973 after many years of research, and is strongly influenced by her previous work on the theology of John Oman as well as by the philosophy of Michael Polanyi. She had the benefit of advice from David Jenkins and John Macquarrie, both erudite and controversial theologians, and also weekly meetings with Michael Polanyi.

This book is a worthy sequel to Polanyi's magnum opus Personal Knowledge. It is thoroughly Polanyian in spirit, style and content. It espouses the Enlightenment view of man as a person endowed with freedom and seeking truth, beauty and goodness, but it rejects, as did Polanvi, the Enlightenment dichotomies of spirit and nature, mind and matter, value and fact, freedom and determinism. As in PK we are invited to share in an interconnected series of descriptive insights which together constitute an overarching vision of all reality. We are not presented with a sequence of precisely formulated arguments that would induce our agreement. Wholly explicit arguments and logically coerced conclusions run counter to Polanyi's great insight into tacit knowing with its inherent unspecifiabilities in perception, lan-

guage, reasoning and discovery. Just like Polanyi we find the intermittent recurrence of significant themes that are used to explicate particular insights, with a resulting repetitiveness and lack of clarity as to just what the key steps in the argumentation are. The benefit is that insights are offered to us as insights in the belief that our hearts and minds will resonate with them and we will thereby be changed by them. The purpose of the book is to show how Polanyi's philosophy can be used to formulate a personalist theology that recasts Christian beliefs in a way that is consonant with modern thought. Polanyi had wished to write a substantial work of philosophical theology but illhealth in his advanced years made this impossible. Joan Crewdson has produced a work to which, I believe, Polanyi would have said a loud Amen.

# 1 Polanyi's thought

The first two chapters provide an excellent, if uncritical, exposition of Polanyi's epistemology and ontology. Whereas a number of sympathetic commentators on Polanyi applaud his epistemology and sociology, as found in Part One to Three of PK, but regard his ontology of Part Four as unfounded speculation, Crewdson treats it with total seriousness as she finds relevant correlations in the theology of John Oman. In the first chapter we are presented with Polanyi's polemic against positivism, his lesson on the Copernican revolution that a claim to truth is a vision of reality, his realist recognition of nature as an ontology of different logical levels, knowing as an aesthetic skill, the fundamental frame-

work of beliefs that undergird knowledge claims, the importance of tradition and freedom, the grasp of meaning as a gratuitous gift, Polanyi's resolution of the Cartesian dichotomy of mind and matter. the emergence of rationality in the evolutionary process, the importance of the indwelling of what we know for his epistemology and ontology, the I-Thou relation, paradigms, the rationality of Christian belief, Polanyi's account of scientific discovery, the logic and dynamics of tacit inference, intentionality in knowing, intellectual passions, and the use of imagination and intuition in scientific theorising. Reader of PK will be aware of these Polanyian themes.

In Chapter 1 Crewdson explains that Polanyi had shown that different kinds of aesthetic skill are involved in the recognition of patterns in inanimate nature, in the recognition of the function of organs and organisms, in the recognition of sentient living creatures, and in the recognition of self-conscious living creatures like ourselves (p.8).

Polanyi's many-levelled ontology restores confidence in a world of infinite variety and meaning, whose reality is to be judged by its power to reveal itself unpredictably in future (p.11).

The whole that is grasped as the focal object of our knowledge is apprehended by our indwelling its subsidiaries. But the whole is not the mere addition of its parts. It dwells in a different order of existence and Polanyi explains that the difference in the levels is a 'logical' difference. The language of physiology cannot be reduced to the language physics and chemistry, for physiology includes teleology,

which is lacking in the latter. Likewise, the language of morality is not reducible to the language of psychology, for the former refers to values irrelevant to the latter. Crewdson repeatedly emphasises this fundamental logical difference between the focal and subsidiary levels. The subsidiary-focal polarity can incorporate logical incompatibilities so that traditional dichotomies can be overcome (p.17). The structure of the tacit knowing of a comprehensive entity is analogous to the structure of that entity (p.22).

The second chapter explicates further Polanyi's ontology. Belief commitments underlie all our perception of reality. Crewdson enlarges on the part-whole, subsidiary-focal relationship.

Every whole stands in a transcendent relation to its parts and has a potential and a meaning that its parts, viewed separately, do not have. Everything in the real world has this self-transcending character, since the meaning and purpose of any collection of parts forming a significant coherence derive always from a source, or principle, that transcends it (p.72).

Each level functions autonomously according to its own set of operational principles, but at the boundary left open, a higher level system harnesses these in the service of new goals. Polanyi describes this phenomenon as dual control (or marginal control), because each level is subject to two controlling principles (p.74).

Crewdson notes that the imagery of polarity was originally borrowed from magnetism, for a magnet always manifests bipolarity (p.83). But the main point is that at least two different logical levels, or principles of operation, are present in all known entities. Human judgement involves a double dialectic, once in relation to the standards of one's profession or culture, the other in relation to self-set standards consonant with transcendent ideal values (p.86f). So tradition can provide the hermeneutic for judging experience, and, alternatively, experience can be used to judge tradition.

Living organisms and the directionality of evolution show that teleology is intrinsic to nature (p.89). We can speak of the achievement or failure of embryological development or the behaviour of creatures. So we must distinguish between reasons for success and lower-level causes of failure. Likewise we must differentiate freedom from the determinism of natural causes, for these too are on different logical levels. We can speak of the purposes of animals as distinct from the physiological causation of their movements or inability due to disease. So biologists such as Arthur Peacocke accept that nature needs describing in terms of both bottom-up and top-down causation (p.90f. See his God and the New Biology (Oxford, 1987) and Theology for a Scientific Age (Blackwell, 1990)). Human freedom transcends nature but operates in terms of the structure of the body, which is deterministic in its own terms (p.95).

#### 2 Time-oriented entities

As was concluded by Marjorie Grene in The Knower and the Known, Crewdson holds that the Einsteinian view of the interrelation of time and space and energy, living entities are definable as timeoriented processes, or 'stretches of embodies time? Hence 'the future need no longer be regarded as wholly determined by the past. Entities can be seen as drawn by goals as well as pushed from behind' (p.93). What a thing truly is is determined retroactively by its ultimate form (p.100f). Crewdson appears to espouse the kind of future-oriented process metaphysics advocated by the German Lutheran theologian Wolfhart Pannenberg.

If we hold that any part of the universe supports life that is genuinely future-drawn and can respond to an idea or a need that is not directly caused, this suggests that the universe is open to some power beyond that of efficient causation and

that evolutionary development is not wholly determined by the past (p.97).

Crewdson accepts Polanyi's view that reality is determined by degree of significance. So minds and problems are more real than cobblestones. 'His criteria for degrees of reality are based on spiritual profundity as well as on physical complexity ... a true theory, a just law, a great work of art is real if it has a creative power in itself independent of the subjectivity of the mind that produced it.' (p.105).

# 3 Theological method

Chapter 3 is entitled 'Theological Method' and Crewdson notes that a dialectic approach that incorporates logical incompatibilities has characterised the theologies of Pseudo-Dionysius the Areopagite, John Scotus Erigena, Nicholas de Cusa, Leibniz, Hegel, Whitehead and Macquarrie. For Crewdson, 'Polanyi's dialectical method is as applicable to knowing God as it is to knowing any other kind of reality' (p.115).

Dialectical theism holds reason and revelation together. For Christians, this allows reason to work within a framework of commitment to the biblical revelation (tradition). Faith and reason then function in a fruitful partnership, enabling reason and modern critical method to co-ordinate the data, much as the scientist co-ordinates the results of research by allowing theoretical and empirical elements to interact in mutual adjustment, a double dialectic (p.116).

On the question of the relation between gracious revelation and man's quest for God Crewdson holds, as against Kierkegaard and Bultmann, a dialectical correspondence.

On the one hand, knowledge of God is wholly dependent upon God's gracious self-disclosure and initiative in giving the condition for faith. On the other hand, persons bear full responsibility for living the kind of life that seeks the truth about reality

and equips them for the ongoing quest. On the one hand, human doing takes place within a framework of commitment, which means that we already share in the life of the divine object. On the other hand, faith itself is a response to the object, of which the subject may have but the dimmest intimation. We can, therefore, say, that human self-making through the exercise of free, responsible choices and dependence on God for the power to exercise that autonomy, are both enabled by God's initiative and free gift (p.137).

Following the lead of John Macmurray, Crewdson explains the God-world relation as being such that God's transcendence of it as His creative act means that He is also immanent in it (p.146). Likewise, by virtue of his indwelling of what he knows, the human person is also transcendent to and immanent in the world he knows (p.149).

Crewdson discusses the role of paradigms in theology in relation to the 1988 Tübingen Symposium convened by Hans Küng to consider whether a single theological paradigm might provide a basic form of hermeneutics within which various contemporary theologies could exist. A Polanyian view would warn of level confusion in identifying paradigms (p.161) and provide a personalist God-world metaphysics as an ultimate paradigm within which not only Christianity but 'all world faiths can pursue theological reflection' (p.162). Polanyi's epistemology 'reinforces the idea that no theory or paradigm can articulate the rationality of the world fully and completely, or promise absolute truth, because the universe itself is an open system, unable to provide within itself an ultimate principle of explanation' (p.163). We have to construct our basic paradigm from a double dialectic between the Christian tradition, including the Bible, and contemporary Christian experience and thought. Crewdson believes that we 'need to establish a broad hermeneutical consensus within which interfaith dialogue can be pursue, a theistic framework

giving theoretical expression to our common belief that God and the world are part of a single reality' (p.170). The goal of such a dialogue is not the conversion of others but the sharing of religious insights.

#### 4 Other thinkers

Crewdson gives a brief Polanyian critique of the dichotomies introduced by Descartes and Kant (p.28f, 120f). But she fails to note that Kant saw the imagination and teleology as the bridge between the knowable phenomenal, natural realm of science and the ineffable, noumenal realm of morality and freedom. In The Knower and the Known (Faber, 1966) Marjorie Grene provided a much more thorough exposition and Polanyian critique of the epistemologies of Descartes. Hume and Kant. But Crewdson also gives attention to the thought of Pascal, Hegel, Kierkegaard, Schleiermacher, and Feuerbach, who were not considered by Grene. Crewdson finds it helpful to invoke the ideas of John Macmurray who identified the self as an agent who is part of nature, and yet also transcends it (p.37). Consideration of the contingency of history in relation to Christian truth claims about Christ, as raised by Wilhelm Dilthey and Ernst Troeltsch, are also considered by Crewdson (p.142f). Crewdson notes that John Oman's metaphysics of experience in which the order of nature relates to supernature through personal mind can be correlated with Polanyi's triadic structure of knowing (p.153f).

# 5 Mind and person

Persons function as a mind-body unity.

A person is a centre of conscious actions, whose bodily parts function co-ordinately on a lower level in the service of the whole person. As Polanyi says, the mind represents the meaning of the body and the body

gives expression to that meaning (p.18).

Polanyi noted that focal awareness, subsidiary awareness and the integrative power of the cognitive agent are all aspects of mind. Mind experienced as subsidiary awareness is mind in its bodily aspect - the proximal term. Mind experienced as focal awareness is the distal mind, because awareness of meaning is displaced from it. Mind represented by the personal factor that legislates between them and unites the many clues to form one meaning is the passionate, integrated performance of the whole person, who seeks to see life steadily and whole. All three modes or aspects are needed to describe mind in its total activity . . . Polanyi's ontology of mind is a triadic ontology, which holds together self and world, mind and body, subject and object, facts and values (p.53).

Crewdson notes the two-fold meaning of Polanyi's affirmation that we indwell what we know.

The paradox of indwelling is that the world we make our home it can, by a shift of emphasis, be experienced as a world within us. The first form of the indwelling metaphor enables us to think of the self as dwelling within a framework of beliefs. The other form views the self as an expanded consciousness, which has assimilated these beliefs and uses them as hermeneutical tools. Both forms of the metaphor tell us something about the self-world relation. A person can either view himself as part of nature, linked to the physical world by his body, or as a reflexive being who transcends nature and views the world as external and distinct from himself. By using this metaphor, Polanyi brings mind and body, self and world, together in a living union in which ontological and epistemological change and growth are seen as part of a single dynamic process (p.77).

A personalist metaphysic (as opposed to a materialist or idealist one) allows us to affirm both the reality of mind and its creative energies and the reality of matter and of energies that are physically measurable. By working with a personalist philosophy it is possible to think in a non-dualistic way about bodies and minds and to

hold them in a relation of polar interaction. A personalist metaphysic has to find a way of holding complementary opposites together (e.g. reality and meaning, fact and value, freedom and structure, the existential-ontological relation, subject and object and so on). In judging the reality of something in a world where personal being is paradigmatic of the real, it is the meaning and value of what is embodied that is crucial, not the material that gives it embodiment' (p.80f).

Since mind has the power to know the real, this legitimises the mind's own claim to reality (p.102).

The growth of thought is seen by Polanyi as an independent force which endows persons with the capacity for self-transcendence. We are, he argues, justified in holding unproven beliefs on the basis of personal commitment with universal intent (see PK, pp. 268, 301-309)' (p.103).

Mind functions as the integrating and organising principle of the body . . . Mind also represents the whole person as a centre of judgements and actions' (p.151).

#### 6 Truth

Polanyi had laid out the basic presuppositions necessary for a free society. Firstly, there must be a belief that there is a truth than transcends personal opinions and yet can be grasped by the knowing mind. So truth is both transcendent and immanent. Secondly, freedom is rooted in a passion for truth. Thirdly, truth implies a realm of values that transcends society and should be its guide. Fourthly, although human judgement is grounded in culture and its traditions, it should still be capable of grasping and knowing truth (p.2).

Crewdson notes on p.63 that Polanyi did not hold to the correspondence theory of truth but rather regarded P is true' as equivalent to 'I believe P' (p.42). This sounds like a fallibilistic pragmatic theory of truth subject to the crippling objection of subjectivism. It is unfortunate that Crewdson did not give a defence of Polanyi's theory,

as was done by Andy F. Sanders in his Michael Polanyi's Post-Critical Epistemology (Rodopi, 1988). For Polanyi 'truth is a field of meaning with a polar structure. Its objective pole is the object of our universal intention. But it is subjective in its appeal, because it elicits our act of personal commitment to what we believe to be true' (p.64). All truth claims take place within a commitment situation in which they are affirmed with universal intent. So all truth has both an objective pole and a personal pole (p.88).

# 7 Meaning

Meaning is grasped in personal judgement: the apprehension of significance appears like a gift of grace (p.15). The mind participates in what it knows.

When meaning and reality are thought of as separate, the human mind ceases to experience nature as inherently meaningful and we assume that the mind imposes its own rationality on what is observed and creates its own meaning. This denial of the polar structure of knowing allows subjectivity and objectivity to fall apart and meaning becomes purely subjective (p.20).

The achievement of meaning is a clue to reality *because* it is the result of a deliberate effort to know and understand with universal intent' (p.39).

This ability to hold meaning and reality together is the basis of Polanyi's personalist metaphysic (p.79).

No finite system can have its ultimate meaning in itself, but

if the universe has a creator, its ultimate meaning is guaranteed. God, in effect, guarantees the value of the creative process and the meaning which creatures find in the things and events which constitute their world (p.208).

Reality and meaning form a polarity. Meaning has the character of wholeness. It integrates the many elements of the real world into different wholes and each more inclusive whole bestows meaning on its lower level parts. Theologically speaking, meaning is the gift of God, who is the

ultimate give of all meaning (p.213).

#### 8 I-Thou

Crewdson gives a new interpretation of the I-Thou relation that was originated by Feuerbach and expounded by Martin Buber. In view of our indwelling of what we know,

the self-world relation is a special case of the I-Thou relation . . . In this interaction, knowing expands being and expanded being participates more deeply and fully in the life of the other with a corresponding growth in mutual commitment and understanding ... every individual I is part of the all-inclusive Thou of corporate humanity (p.25).

Now polar opposites can only correlate dialectically across logical levels as in the subsidiary-focal relationship. Crewdson assumes that polar structure is constitutive of personal being and that the individual-social relation is the most fundamental polarity. So

the I of the I-Thou relation stands for the individual pole of personal being and the Thou stands for the social pole. In principle, the Thou represents the whole, though this need not be the world or mankind as a whole; it may be the family or the local community, or just another person. The point is that, when I say Thou to someone, I say it in a sense to the whole human community, of which I am part . . . Logically, the I-Thou relation is not a relation between equals, since, within the relation, the I represents the part and the Thou represents the whole and stands for the larger community. This gives each a different logical status (p.150).

The I-Thou relation will also characterise the relationship between the world (and the individual worshipper) and God (p.151).

# 9 Creation and evolution

Chapter 4 is an exposition of the doctrine of creation. Like Moltmann Crewdson appropriates the Kabbalistic doctrine of Isaac Luria known as *zimzum* in order to explicate what creation meant for God (p.185f). This maintains that there was an inner withdrawal within God in order to make 'space' for a relatively autonomous creation (p.185f). For Crewdson this 'space' is to be thought of

personal space, that shares fully the uncreated life and attributes of God and equally partakes of the created life and attributes of God . . . the space coded by God provides a co-ordinating principle of rationality, that mediates across logical levels between God's eternity and creation's space-time existence and . . Polanyi's findings reflect the polar structures acquired by creation in the course of a creative process involving dialogical interaction between creaturely being and its creative Source (p.187f).

For Crewdson the directional character of evolution means that explanation in terms of genetics and natural selection is insufficient. She notes that Sir Alister Hardy, in *The Living Stream* (Collins, 1965), maintained that the purposive behaviour of living creatures must have been a significant factor in the evolutionary process, although it is inherently contingent and unpredictable (pp. 112f, 196f).

Crewdson believes that mind's activity is a shaping power in evolution.

Sooner or later, I would expect the view to prevail in science that nature's rationality manifests an active partnership between transcendence and immanence, since I believe that this alone can account for the emergence of human persons, who, more clearly than any other of nature's creatures, embody this partnership. Scientists themselves regard matter as self-organizing, but few at present regard conscious mind as an emergent property of the power that has been structuring and co-ordinating the processes of nature throughout evolution (p.197).

Such a hylozoism is repeated three times on p.200ff and sounds like a kind of Lamarckianism.

For Crewdson the evolutionary process is a co-creator alongside God.

On a Polanyian view, the process of evolution is, at least in part, the self-creating *response* of creaturely being to an environment of which it is part, which it indwells and which *evokes* response. Extrapolating from this view, it is reasonable to see behind the created environment a more inclusive and ultimate Environment and call it God, in whom the whole created order lives and moves and has its being (p.98; cf. pp. 175, 207).

Whereas Andy Sanders warned against this kind of extrapolation as being 'either too good to be true or too easy', Crewdson believes that it is acceptable so long as one maintains the logical distinction between the uncreated being of God and the contingent nature of creation.

Although Crewdson sees God as intrinsically united to creation she does not accept the process metaphysics of A.N. Whitehead or the process theologies of his followers, because they retained dualistic dichotomies and failed to recognise the logical differentiations and cross-level polarities of nature's hierarchies. Moreover, they do not adequately represent the personal nature of God (p.224).

Crewdson proceeds to discuss the nature of personhood and what has led to it. Biology has no categories for explaining consciousness. But animals are active centres of self-interest, capable of learning and problem solving (p.209). Crewdson believes that the evolution of the human mind with its great powers of identifying meaning must imply that sensation and perception much further down the evolutionary scale must have had the ability to ascribe meaning (p.212). Science and theology are complementary disciplines and both are needed for a proper view of reality (p.214f), which is in a triadic relation of nature, emerging centres of personhood, and God (p.216). Each member of the triad

is immanent in and transcendent of the other two.

## 10 God

God is not a Being with special properties. Such an idea arises from a category mistake, for it treats God and human persons as being of the same logical type (p.84). As uncreated God is of a different logical type. God is not a person but is

the ultimate form of the personal and human beings in God's image are only on the way to becoming fully personal. If this be so, we are justified in suggesting that the uncreated perfection of personal being is to be found in the triune God, in whom the individual and social poles of personal being converge (p.117).

Crewdson believes that Barth's view that God is indissolubly Subject, and never becomes objectified in our knowing of Him, is close to Polanyi's own understanding (p.134). Certainly in PK Polanyi maintained that knowledge of God was not the same kind of thing as the knowledge of a natural entity. But we should note that Polanyi was influenced by Neo-Platonic mysticism and by Paul Tillich regarding the form of the divine. And Crewdson is influenced by Macquarrie's' concept of God as ineffable Being-itself (p.177), a concept derived from Tillich, not conservative theology.

Certainly Crewdson does not hold to belief in the impassible timeless God of classical theism. For her divine immutability is the constancy of God's love and faithfulness (p.144) and God experiences the travail and suffering of His creatures (p.318). Her understanding of God seems close to that of Jürgan Moltmann, for whom God co-suffers with His creation (p.222) which He draws to the eschatological future by the creation of novelty in the course of history. Moltmann holds to what he calls a Trinitarian panentheism in

which God is not necessarily conditioned by the world, as in process theology, but chooses to incorporate the world within his Trinitarian structure. Likewise for Crewdson God's action is not different from His person. He is fully present in His act (p.189).

Crewdson holds to the traditional doctrine of the Trinity and rightly notes the importance of the doctrine of perichoresis (mutual interpenetration and indwelling) for maintaining monotheism and rebutting the charge of tritheism. There are fine expositions of the significance of this doctrine on p.191f and p.289f and in two lengthy footnotes on p.223f and p.312f. She thinks that the early Church Fathers had to 'invent' the doctrine of the Trinity in order to understand the God-world relation (p.230).

# 11 Personalist metaphysics

In Chapter 5 Crewdson explicates further her personalist metaphysics and its implications. It is

the form of the personal that overcomes contradictions in opposites and makes interaction between created and uncreated personal beings possible (p.229).

She enlarges on her view of creation as a co-creator which implies the sacrifice of individuals for the sake of creative emergency (p.233). This leads on to a discussion of the nature of freedom as the correlate of a structured being. 'Freedom is a holistic concept, in the sense that it refers to what wholes can do' (p.240). God must create because His nature is love (p.242). Evolution is a creative achievement analogous to problem solving (p.243f). Polanyi's use of field imagery to explicate the analogy between embryological development and evolution is described with reference to chaos theory and transformations of structures in systems far from equilibrium. An

appendix enlarges on Polanyi's analogy between the structure of comprehension and the powers of morphogenesis. Further discussion on the origins of consciousness and macroscopic changes in physiology is related to the view of Alister Hardy that the purposive behaviour of organism is a major factor in evolutionary development. Further discussion on the nature of mind and morality is followed by exposition of the teleological nature of evolution (p.266f).

# 12 God and Jesus

In Chapter 6 Crewdson considers whether the Incarnation should be viewed literally or symbolically as in the book The Myth of God Incarnate edited by John Hick (SCM, 1977). Crewdson thinks that the category of 'myth' is not necessary to an exposition of the doctrine of the Incarnation in terms of a personalist metaphysics. However. Crewdson does not think that Jesus thought of himself as divine (p.304). He did not accept worship of himself and did not plan to start a new religion. For Crewdson 'the doctrine of the Incarnation sands for the belief that God and the human race became one in Jesus of Nazareth' (p.286). The Chalcedonian doctrine of one Person in two nature is 'a static and unhelpful formula'. Jesus had the experience of mutual indwelling, of total inner communion with his Father.

The New Testament record makes it clear that the never confused himself with God. His fellowship with God was perfect union without confusion (p.286).

The I-Thou relationship between God and Jesus was one of perichoretic union (p.311). Following Moltmann Crewdson draws a distinction between Jesus and the second Person of the Trinity. Jesus was unique in the sense that

his relationship with God was such that God could identify with his entire human life, justifying the claim that God was incarnate and able to reveal in history his own redeeming love for the world (p.287).

Jesus was also unique in relation to the rest of mankind inasmuch his death reconciled man to God. But Crewdson does not think that Jesus should be worshipped as God. It seems to me that Crewdson would find the Christology of D.M. Baillie congenial, in which the Jesus-God relation is understood in terms of Paul's experience of the grace of God as described in 1 Corinthians 15:10 and Galatians 2:20. But it seems clear that Crewdson holds to a Nestorian Christology that fails to assert that the Person of Jesus is God the Son. An examination of the doctrine of enhypostasia as expounded by E.L. Mascall in his books Theology and the Gospel of Christ and Whatever Happened to the Human Mind? could have helped here.

# 13 The Christian life

In Chapter 7 Crewdson dismisses traditional theories of the Atonement with the usual common criticisms. But the careful studies of Leon Morris, John Stott and James Packer of the New Testament teaching of the death of Jesus argue convincingly that it is to be understood as penal substitutionary atonement as motivated by the love of God in consistency with His holiness. Crewdson opts for the view that the death of Christ is a representation of the travail of God who is the co-sufferer with His creatures (p.318). God does not coerce but evokes our response to Him in an I-Thou relation that confers wholeness on our disordered lives. In the rest of the chapter Crewdson offers perceptive insights into the paradoxes of the Christian life in the face of tragedies that afflict us all.

Continued on p.160

# DISCUSSION:

# MACMURRAY AND POLANYI?

## Harold Turner

he special theme of John Macmurray in the last issue of this Journal prompts an enquiry as to their personal relationships. While Macmurray is discussed in relation to Buber, Rawls and Rahner I found no reference anywhere to Polanyi, as I might have expected. They were exact contemporaries-to the years of birth and death; they were both philosophers in senior posts in major British universities; they both swam against the stream of current, dominant schools of philosophy; they were both shunned by the philosophical establishment, just as they are both still largely ignored in the departments of philosophy today, at least at my end of the world, and I expect elsewhere.

In the last three years I have 'innocently' dropped Polanyi's name into conversation with three philosophers-'Do you deal much with Polanyi in your teaching?' The first asked me how to spell him; the second asked me what he should read; the third replied that he 'did not go in much for substantive positions', and my suggestion that this itself was a substantive position proved to be a conversation-stopper. A fourth response reported to me from a philosopher (albeit political philosophy) in the local university was that the name suggested a Central European footballer. Right on at least one point!

While both have been virtually ignored or dealt with inadequately by encyclopaedias, both have aroused sufficient appeal to engender societies and newsletters named after them for the ongoing study of their work and its wider applications. Likewise there are now three journals focused on Polanyi. This is more than can be said for the big

names among their philosopher contemporaries, who are now more like period pieces.

Both made the concept of the personal central to their thinking, and one would have expected them to complement each other, Polanyi with his place for the personal in scientific knowing and Macmurray with the same concept in our relations with one another and with the community. Both attacked Cartesian and Enlightenment rationalism, and stressed other modes of knowing. Polanyi's tacit mode would seem to bear comparison with Macmurray's 'aesthetic' way of knowledge.

Much of the following from Macmurray, quoted in *Appraisal* no. 2, p.58, could have come from Polanyi, including the much-quoted we 'know more than we can tell'. Concerning Macmurray's alternative way of knowing,

We might say that it is largely "unconscious", that it is not discursive but intuitive; that in the end, if our reflection is successful we just know that we are right, but we cannot tell how we know and one can certainly not prove that we are right . . . provided, of course, that the conclusion . . . remains subject to continual revision.

With so much in common, did they never meet, converse, correspond, perhaps review one another's books, and find in the other a congenial spirit?

A negative answer to these questions is suggested by the recent issue of *Tradition and Discovery*, 23(1), 1996-97, which is devoted to a classified catalogue or 'Guide to the Papers of Michael Polanyi' that are lodged in the Department of Special Collections in the University of Chicago Library: There is

no Macmurray in the 151 listed correspondents. Nor does he appear. In the hundreds of authors who interested Polanyi sufficiently for him to make extracts, or notes or comments on them (see pp.28-35). Nor is he found in the special groups of letters (pp.26-7) to people like Marjorie Grene, John D. Baker and especially Joseph H. Oldham and the 'Moot'.

Oldham was an exponent of the personal and the relational—one of his books was Real Life is Meeting. So we can understand Polanyi's involvement in the Moot, that élite group mainly of Christian intellectuals that Oldham gathered for informal discussion of basic public questions. Polanyi read papers to it, and took his theological bearings from Oldham. The correspondence collected here extended from 1940 to 1960. And this only pushes the question about Macmurray further-what relation did he have with Oldham, and in London where they both worked? Was he ever invited to the Moot, like the philosopher H.A. Hodges of Reading University? The same question might be asked concerning Herbert H. Farmer, the philosophic theologian who was John Oman's successor at Cambridge, and again with the concept of the person prominent in his thought.

The question of the theological positions of both Polanyi and Macmurray is another issue, and both Richard Allen and Joan Crewdson have produced impressive studies in this area. Judgment on these will depend on where one stands in relation to the great theological divide between continuing liberalism and growing orthodoxy. I am not aware that Macmurray's theology has had the same attention,

although I recall that Lesslie Newbigin's first and little-known book, Christian Freedom in the Modern World (1936), was in my opinion an effective theological critique of Macmurray's first book, his Freedom in the Modern World. This was almost a cult study in SCM quarters in New Zealand in the earlier 1930's, and probably elsewhere also.

Both men seem to have seen themselves as Christians, but to have been a little shy of organised religion, and not to have served that apprenticeship, in this case in the Christian community, that is so important in Polanyi's epistemology. While Macmurray made much of the love of God manifest in Jesus, Polanyi turned for his analogies to the experience of worship and the Pauline doctrine of the grace of God. Their common emphasis upon personal participation in the knowing process, and their common criticism of Cartesianism, of the Enlightenment and of dualisms, contribute an epistemology and an ontology that is of great service to theology. But it is doubtful whether they grasped the real nature of sin and evil and hence of the need for atonement, for the Cross, and for an eschatology. It is indeed questionable whether they cast new light at these points, and on the conjoined Resurrection, as some have claimed. This is not necessarily a criticism, for their contributions elsewhere in the theological system are widely acknowledged, and it would have needed much more experience and expertise to add to the development of these central doctrines of the Faith.

But to return to the question of Polanvi's relations with likeminded or kindred-spirited contemporaries—or with his critics—these are of course potentially far-reaching. But one would like to know if the fellow scientists, Alister Hardy and Polanyi, ever got together in Oxford when they were both fellows of Merton. Hardy's views on evolution with his third purposive factor beyond the Darwinian pair, would seem to be congenial to Polanyi's evolutionary schema. I once had the privilege of a long post-prandial discussion with Hardy

at Merton on a three-dimensional relational model for both ontology and epistemology, that derived from the teaching of John Baillie and that I have lived with for over half a century. This was in the late 1960's and Polanyi must have been about Oxford and Merton and I did not have the *nous* to ask about Hardy and Polanyi, or to try to meet the latter.

Perhaps some of these questions will be answered in W.T. Scott's biography, or in the continuing studies elsewhere that both Polanyi and Macmurray will undoubtedly engender. And it is perhaps only to be understood that we who look back see inter-connections between these relational thinkers more clearly than they did themselves at the time. And if I had to make a snap judgment as between the value and significance of the two, I would suggest that Polanyi is the more profound and comprehensive philosopher, who embraces much of Macmurray while going well beyond him.

Aukland, New Zealand

## **BOOK REVIEWS**

The Personal World: John Macmurray on self and society.

Selected and introduced by Philip Conford.

Foreword by the Rt. Hon. Tony Blair.

Floris Books, Edinburgh, 1996. 222 pp. pbk. ISBN 0-86315-236-8 £14.99

Philip Conford's anthology of Macmurray's works is a splendid book. The selection is judiciously drawn from all the main sources. There are 23 thematic chapters, starting with: 'Autobiographical', 'the Task of Philosophy', 'the Personal' and 'Reason', and culminating with 'God' and 'the Meaning of Christianity'.

Conford's own, introductory comments on each section are notably clear, brief and interesting. Here is an example: at the head of Ch.7 on 'Knowledge, belief and verification':

Macmurray's long-term practice of science explains the value he placed on action and experiment as a means of gaining knowledge. In his contribution to the symposium *Adventure* (1927), he anticipated the importance of an idea later to be developed by Sir Karl Popper: that scientists gain knowledge not through attempting to verify their ideas but through trying to falsify them (p.86).

And then, in almost Polanyian terms, Macmurray opens with: 'Science starts not from facts but from belief.' Just because the book is

such a valuable resource, especially in regard to Macmurray's rarer works, the publishers ought to produce an edition with a good index. The book is a rich mine, with criss-crossing veins of thought from many sources so the serious reader needs help to maintain coherence. There is already a useful list of Macmuray's works and another key to the initials used to refer to them (p.30). But there is no easy way to find out for example, precisely where quotations from Reason and Emotion occur in the anthology. You have to keep rifling the pages.

I can remember my first encounter with Macmurray's ideas—on the fringes of the Sahara. We were a group of young teachers inin

the Sudan (1940's) workingwith young Moslem student-teachers. That was when Reason and Emotion and The Structure of Religious Experience turned up. The British weekly press and radio were dominated by the popular nothing-butteries of Joad, A.J.Ayer, Bernal and Haldane, or so it seemed. A British Council philosophy lecturer (St Andrews) gave a hollow laugh when Macmurray's name came up: 'not a real philosopher', he said. Yet this 'unreal' voice with its echoes of antiquity, was commenting on topics which seemed real enough and relevant to our problems: reason, feeling, emotion, the arts, religion and other people's history.

Then came the Gifford Lectures. They can be envisaged as fruits, drawing nutriment from deep sources but awaiting a season for dispersal. Perhaps the 1960s were, in this sense, autumnal; a time for conserving rather than a spring time for many blooms. I don't know; but anyone trying to understand Macmurray's place in the twentieth century might wonder why there was so little cross-fertilizing going on in the 1960s and 1970s. Macmurray had, perhaps belatedly, read Personal Knowledge. He told me so in 1965. But I don't think that Polanyi ever read Macmurray. How was it that two 'adjacent' and sympathetic Gifford lecturers could not be symbiotic? It's like two Victorian travellers in the desert, meeting and merely nodding.

It is not surprising that Macmurray's faith deepened as he matured. Questions remain, however, about his views on conscience, sin, salvation (D.A.S. Fergusson's article in *Appraisal*, October, 1996 points in this direction.) But in regard to the depth and overall unity of his faith, one puts this book down with renewed respect.

Right to the end the message remains challenging. Here you find Macmurray's fine credo from the last chapter of *Persons in Relation*. It is worth reading in full. What follows is only a summary,

... the conception of God ... is not

pantheistic. Pantheism results from the attempt to give a religious colour to an organic [as opposed to a personal]conception of the world... God, therefore, as the infinite Agent is imminent in the world which is his act, but transcendent of it. The terms 'transcendent' and 'immanent' refer to the nature of persons as agents, and they are strictly correlative.... Whatever is transcendent is necesserily immanent; and immanence, in turn, implies transcendence' (p.205).

Just before that, however, there has been a long, fascinating quotation from a book I had never heard of: *Idealism against Religion* (London 1944). It is full of good things which have relevance to practical—'sacramental'—political questions:

A man may have the highest ideals, but they do not tell him how they are to be realised; for that an entirely different outlook on the world is necessary, and a knowledge of the world . . . (p.188).

I find myself understanding such language in Gandhian terms of 'satyagraha'—truth in action and Christian pacifism; or in the dimension of Gandhi's Basic Education where the simple skills of making and living become the ground in which true education and true apprenticeship *happen* as they are embodied in childhood, in adolescence and maturity. But that is another story.

The book ends on a note of challenging and convincing theology. But what of Macmurray's Christology and his Christian anthropology? Here there are long-term problems which run beyond the scope of this review; problems which may be faced more sharply in the disintegrating and, perhaps, apocalyptic contexts of the twenty-first century than in the still merely jittery context of the late twentieth.

Robin A. Hodgkin

John Puddefoot God and the Mind Machine SPCK, London, 1996; xii 145pp.; ISBN 0-281-04973-4; £7.99 pbk.

This is a clearly and crisply written book which tackles the questions of how far and in what ways developments in computers, robots and artificial intelligence (AI) will and should affect our conceptions of man and God. He rightly warns us about both the exaggerations of partisans of 'science' (i.e. of their own accounts of what science proves, rather than of what it has in fact discovered) and of interventions which declare from the outside what it can't do. Theologians should be neither afraid nor prescriptive regarding science

The author's strategy is, in general, to allow that computers may well be able to do many things which at present we cannot even imagine but to deny that having those powers ('intelligence') would make them conscious and human (p.71). Yet by the end of the book he allows that is possible that we shall be able to make machines which do have the full range of human capacities and not just 'intelligence'.

He warns us about 'model inversion' whereby we forget the inadequacies of a model, and possible alternatives, allow it to reshape the way we think of the world, and thus think of ourselves as computers, and against the 'Sliding Definition Ploy', whereby words like 'machine', 'life' and 'intelligence' are used in a restricted sense to apply, more or less aptly, to one set of objects and then, without announcing the fact, apply them in their wider and everyday senses to those same objects.

He raises the Frame Problem, of the necessary and vague (and tacit) background we bring to what we do, such as the use of language, as something that cannot be reduced to a set of rules and thus programmed. Likewise the experienced qualities of things and the meanings of signs and symbols, which lie in

their use by a community and not in the marks or notations themselves. Again, the Turing Test (that, if there is no perceived difference between the output of a computer and that of a person performing the same operations, the computer is thinking) fails to take account of the 'inside-out' structure of minds, their orientation towards the world, their perspective upon it. AI enthusiasts simply ignore it and identify the observable (the 'outside-in') with what is really there, was a mind, just as we do by being brains that are conscious and self-conscious.

For a computer to act like a person, and not just to show 'intelligence', with which Puddefoot is prepared to credit it in at least some sense, it would also have to be capable of experiencing pain: i.e. of knowing itself as *vunerable* and, generally, locating itself on scales of values, and the possibility of that he is inclined to doubt (pp. 91-4), but later on appears to allow.

Puddefot proposes a dual-aspect account of mind and body-insideout-orientations as well as outsides--instead of a 'two-stuff' view. Yet it must follow from the former that there are no immaterial beings at all, and no minds without brains (p.96) anywhere. The result must be a radical Immanentism that I am sure he would reject. There is more to be said for 'dualism' than he seems to allow, as an account of mind and person in general and not simply of them in this world, where, indeed, the personal, mental and organic are dependent on the physical.

On his account of minds being generated by brains and in turn coming to control them but not wholly, it follows that digital computers could not generate minds but that neural networks, which are structurally similar to brains, might someday manage to do so. He leaves the reader to consider if it would then be right to switch them off and to concede 'android rights',

and turns to the question of how God knows us: from outside-in or inside-out. Puddefoot seems to accept the usual 'inference by analogy with oneself' from perception of the outside of another to conclusions about his 'inside', an argument that Max Scheler demolished with the observation that its logical conclusion would be that those other 'outsides' must be the results of my unconscious intentions.

That apart, he rightly claims that God must know us from the inside out. Yet, he argues, to feel our pain, and not just to know about it, God must himself become a creature, the central tenet of Christianity. If so, it follows that God could not have known what Abel or Abraham suffered at the time. Again, would Puddefoot accept that consequence? I am not sure if he has overcome the usual error of thinking of God as an observer of a world which he finds and does not make. (The world is God's activity in time and space, which he knows as we know ours, by performing it, but eminently so, in full detail and not only in focal aim.)

Returning to the problem of the Turing Test, Puddefoot considers examples of fictional androids that appear to have everything we have, and which in some circumstances some people may prefer. What is most important about us is creative newness, in the image of God, and hunger for new experiences. If, as well as reproducing life and mind, we are to be able to create them artificially, that is what we must be able to put into androids. But could we? Puddefoot professes agnosticism on the ground that we have no way of way of knowing what it would be like to be such a neural network. Some would still say that a machine, no matter how sophisticated, remains a machine, although it might deceive us into thinking otherwise or although we might so personify it that we forget that it is a machine. Would we really feel

that they had feelings? that they loved us?

Would they have 'souls' or 'selves'? Implicitly adopting, it seems to me, the usual line in modern thought that soul or self is a collection of qualities and relations, Puddefoot suggests that there would be little or even nothing to survive of the self in this world and this life into the next, for what we do is bound to this context. Yet if certain androids were to become significant portions of ourselves, as sets of relations, then they too could join in the Resurrection. Perhaps so, but would they be resurrected as persons in their own right? I doubt it.

Puddefoot combines his dualaspect theory with the Resurrection by arguing that God can, by knowing them, recreate the configurations of the brains that give rise to their respective minds.

But would they be the *same* minds, rather than similar ones arising from similar configurations of brains 'in glory'? Again, it seems to this reviewer, that as well as all the other ways that mind and person can be validly conceived (as the meaning of the lived body, as activity), some notion of a substantial soul as the (unique) person himself, the centre who *uses* his mental, organic and physical powers, is still needed, both in this world and the next.

Puddefoot's final message is that that the 'apparent impossibility . . . of artificial minds did not deter God from making them. For the universe is God's mind machine'.

I remain a sceptic because man is not God, the universe is not a machine, and no machine can have a 'frame' or tacit understanding, grasp and give meanings, or experience qualities. Nevertheless I enjoyed this stimulating raising of the questions and honest attempt to answer some of them.

R.T. Allen

#### POLANYI NOTICEBOARD

- 1. Society, Economics, Philosophy: Selected Papers by Michael Polanyi, is now published by Transaction Publishers (Rutgers, New Jersey, 1977; ISBN 1-56000-278-6; \$44.99; no details yet of the distributer and price in Britain). Some copies will be on sale at Nantwich: see (6) below.
- 2. Joan Crewdson has copies of her book, Christian Doctrine in the Light of Michael Polanyi's Theory of Personal Knowledge, for sale at the special price of £25 each. Anyone interested should write to her at 12 Cunliffe Close, Oxford OX2 7BL.
- 3. Drusilla Scott's Everyman Revived: The Common Sense of Michael Polanyi has been republished by Erdmans (Grand Rapids, Michigan) and is available in Britain from Alban Books, 79 Park St, Bristol BS1 5PU.
- 4. The latest issue of *Tradition and Discovery* (XXIII No. 2) has articles by Paul Lewis ('Polanyian reflections on embodiment, the human genome initiative and theological anthropology') and Aaron Milavec ('Religious pedagogy from tender to twilight years . . . . ') and a review of the late Ted Moss's *The Grammar of Consciousness: An Exploration of Tacit Knowing* (New York, St Martin's Press, 1995).
- 5. The next issue of *Polanyiana*, in English (or partly so), is due out soon but had not arrived by the time this was printed.
- 6. Appraisal is sponsoring two conferences:

FUNDAMENTAL BELIEFS AND PRESUPPOSITIONS: a one-day conference on Sat. March 15th 1997 at Regents Park Theological College, Nantwich, Cheshire.

Fee (including papers in advance, tea and coffee but not lunch—available at the College cafeteria): £10 or £5 for students.

Places still available. Please contact the Editor as soon as possible on 01509 215438 or by e-mail: Richard Allen 21@compuserve.com. There will be a book stall at the Conference.

MICHAEL POLANYI TODAY: a week-end conference, April 17th-19th 1998, at Halifax Hall, University of Sheffield.

Fee, inclusive of accommodation, meals and papers in advance, about £100: to be confirmed by June. *Pro rata* terms are available for those who cannot attend every session and for non-residents.

A deposit of £50 is required (to be paid by October) to secure a place, of which £25 will not be refunded in case of withdrawal.

Papers, which do not have to be narrowly focused upon Polanyi, are invited. Please send proposals and outlines to the Editor, along with any enquiries, either as above or at 20 Ulverscroft Rd, Loughborough, Leics. LE11 3PU, England.

7. If you have any items for this column (such as details of books and articles about Polanyi, news of conferences), please send them to the Editor in good time for the next issue: i.e. by mid-September.

#### OTHER NOTICES

1. The Fourth International Conference on Persons will be held at the Charles University, Prague, on 8th-13th August 1947.

A complete package from Heathrow, including flights and hotel accommodation (5 star) for 5 nights, is available at £469. Other options, with and without accommodation, are also available.

Bookings are required by Friday April 18th. Please contact Dr R. Fisher, Westminster College School of Theology, Oxford OX2 9AT; fax 01865 201197; e-mail rob@fishwest.demon.co.uk.

2. The next conference of the **John Macmurray Fellowship** will be held on 3-4th October 1997 at the University of Cambridge Institute of Education. Further details can be obtained from Michael Fielding at the Institute or the Secretary, JMF, 37 Long Grove, Seer Green, Beaconsfield, Bucks. HP9 2YN.

#### Continued from p. 154

In the final chapter Crewdson has many valuable things to say about man as created in the image of God, human freedom, sin, man's stewardship of the world, communion with God, reconciliation with God, moral conduct, miracles, the supernatural and the Kingdom of God, all in relation to her personalist metaphysics. But space forbids discussion of her perceptive insights.

## 13 Comment

Finally, has Joan Crewdson made out a convincing case of her personalist metaphysics? Those who adhere to the panentheistic theologies of Moltmann and Pannenberg are likely to have a lot of sympathy

for her case. More conservative theologians are likely to say that it fails to maintain the clear distinction between God and His creation that the Bible affirms. A personalist model for the relation between God and His world can only be one amongst a number of others, e.g., the artist and his work of art. I think that conservatives would feel that Crewdson's rejection of the traditional doctrines of the Incarnation and Atonement is too easy and cannot really be justified on biblical and theological grounds. That having been said, the book is nevertheless a powerful attempt to apply Polanyi's thought to Christian theology and there is certainly many imaginative insights to be found in this book.

Regrettably, I think that the reductionist Neo-Darwinian biologist will not be impressed. He will

ask where is the empirical evidence for this theorising about evolution? One has to say in reply that some evidence, e.g., that from complexity theory, is available and that reductionism is wrong in principle if we accept that there is objective value in human life. A determined atheist like Richard Dawkins is not likely to accept this promise. The analytic philosopher will be impatient of the interlocking descriptive style and ask for distinct convincing arguments. Perhaps a different form of exposition could succeed here. But nevertheless Joan Crewdson is to be congratulated on a major achievement that those who appreciate Polanyi will value.

Regents Park Theological College Nantwich