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A PROFILE OF MASONIC SYNTHESIS*

Analysis and Synthesis

1. *Due sunt methodi, synthetica per artem combinatoriam et analytica...*¹; *There are two methods: the synthetic, via the art of combination, and the analytic.*

*Forma sive ordo... consistet in conjunctione duarum maximarum inventi artium, Analyticae i Combinatoriae...*²; *Form, or order... consists in conjoining these two main arts of discovery ... Analysis and Combination ...*

And there we have, in the words of Leibniz himself, an piece of wisdom fundamental to Western Civilisation (although not only to it). Everything is a both a product of the decomposition (analysis) of a given object into simpler objects and of the synthesis (composition) of that which is composed of simpler components. In order to come to know a given object, it is necessary to reconstruct the process of analysis and synthesis, in the one and the other direction.

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¹ See L. Couturat, “La Logique de Leibniz”, *Math.* I, 26c.

² See Foucher de Careil, VII, 173

Historical Sketch

2. Such a thought lies at the basis of Greek philosophy. It emerges with Empedocles and Anaxagoras. It is present in the philosophies of the Pythagoreans, of Democritus and of Plato³. From them it passed into European thought where it has settled for good.

It has also appeared in Eastern thought. One may take, for example, Taoism, with its conception that everything is a compound of two primitive factors, *yang* and *ying*.

It was a central component of Western science and philosophy until the time not so much of Aristotle as the scholastics, for whom the stress shifted onto qualitative investigation and a qualitative account of phenomena, leading to a mostly futile search for essential properties and trailing off into rather fruitless further inquiry.

Let us note here that all those scholars of the structure of natural compounds, such as the alchemists, never gave up on its centrality.

3. It was with Method of Descartes that we see a certain renaissance of the paradigm of analysis and synthesis, the idea lying at the basis of his thought. Taking analysis as primary and synthesis as secondary and considering both as having conceptual and natural forms, Descartes made them the basis of his science. This is clearly stated by him, both in his "Discourse on the Method" and "Rules for the Direction of the Mind".

The full flowering of the idea, both in science and in philosophy, took place in the century after Descartes, a century dominated by the two giants, Newton and Leibniz.

4. In mathematics, two fruitful results, of many which could be given, were the Differential and Integral Calculi, of which the first consisted in the analysis (breaking-up) of a given field and the second in integration (consolidation), this being the appropriate form of synthesis. The calculi conjugate with one another and are dual.

In the 18th century, the method brought about successes in the newly-emerging discipline of chemistry, resulting in its becoming in the following century the model on which the science was built. As is no doubt familiar, the model falls apart roughly into the following pieces: a theory and a practice of chemical analysis, a theory of chemical synthesis, a theory of the chemical elements (an analytic concept, as we shall see) and a theory of chemical compounds united with a theory of the types of compound-forming connections.

³ They all agreed on the method, although they proposed different analyses and syntheses and, in particular, they had varying opinions on the issue of what was simple.

Subsequently, at the beginning of the 20th century, the method found took root in physics and, half a century or so later, in molecular biology and genetics.

5. Somewhat different, however, appears the fate of the Cartesian and Leibnizian paradigm in philosophy and logic.

In the beginning the model was modern, and thus fashionable, and was adopted by many, including the whole Cartesian school and, from Locke onwards, Anglo-Saxon philosophy, where it fused with the type of empiricism stemming from Bacon and Locke.

Until the second half of the 18th century, the method of analysis and synthesis (for short: **AS**) was applied routinely in the examination of the world and its components. Man was considered (in accordance with common sense) as a component (part) of the world and the human world was treated naturalistically — as a part of the world as a whole.

This approach was perhaps favoured by the view that the world in its entirety was universally considered to have been created and organised by a Creator⁴.

6. In the hundred or so years leading to the time of the Kantian revolution, that is the emergence of the so-called second “critical” philosophy of Kant⁵, **AS** in philosophy had become mainly a method of conceptual analysis of cognition (often resting upon special cognitive intuitions).

In his second philosophy, Kant succeeded spectacularly in breaking away from the “fact-seeking” type of inquiry that had characterised traditional metaphysics, leaving the exclusive rights to form of fact-orientated inquiry to researchers in the various areas of natural science⁶. In exchange, he promoted metaphysics as inquiring into human cognition and its results. To use contemporary terminology — as suitable for conducting research in the disciplines of Cognitive Science (in “The Critique of Pure Reason” and related writings) and in Political and Axiological Science (in the remaining “Critiques”).

In this, Kant was most certainly a revolutionary. He brilliantly broadened the field of human cognition. In the foreground were brought up neglected issues for treatment with his own, unusual and original solutions, which em-

⁴ Such was Leibniz’s God - The Creator of Heaven and Earth, He through which everything came to be.

⁵ The first, “pre-critical” philosophy of Kant was directed at the world and deduction, closely connected with physics at least, in which Kant was an acknowledged expert.

⁶ Let us recall that in Kant’s time there was in general no such thing as the Humanities. They were to come into existence only in the 19th century.

phasised the active role of the (human) Mind. In his philosophy the Mind divided into three parts: Theoretical Understanding, Practical Understanding and individual cognitive and practical powers.

Epistemology disappeared from the foreground along with those “metaphysical” systems of epistemological and transcendental idealism that were derived from it.⁷

If one thing is certain, it is that right from the emergence of Kant’s second philosophy and thanks to it, the close connection between philosophy and science was broken. The gap widened gradually becoming in some philosophical schools more of a gulf. Recently, the gap has narrowed and is expected eventually to close.

7. We can say now with a certain conviction, two hundred years later, that the Kantian Revolution *did not give birth to any new metaphysics which has come out or could present itself as a science*. That revolution has however for some time pushed aside classical metaphysics ever closer towards, one might say, the dustbin of philosophy. One may compare what happened in the so-called post-Kantian metaphysics of the first half of the 19th century to a regress to a very much earlier period in the Middle Ages’ philosophy.

Where, then, were to be found the subtlety, momentum and reliability of Plato, Aristotle, Plotinus, Anselm, Thomas Aquinas, Duns Scotus or indeed that prince of philosophers in so many ways close to Kant — Leibniz? In recent times, such standards have been upheld in our time by thinkers no less giants but both isolated and lacking in influence. For example, Bolzano or Schopenhauer.

8. Classical metaphysics has come back to life. Yet it has most definitely become a logical, hence scientific discipline not aligned with the Kantians, but one set against them.

Those who regenerated first philosophy as a discipline were above all the fathers of contemporary logic. Conceived in the latter half of the nineteenth century, classical logic has enjoyed a era rich in developments. In chronological order, we begin with Bolzano, Boole, Frege, Peirce, and Peano, followed by Russell, Whitehead and Wittengenstein, after whom the names worthy of mention are legion.

A second figure in the revitalisation of classical metaphysics as a live scientific philosophy was Franz Brentano, and beyond him his students and

⁷ Some consider that, with regard to this matter, Kant was faithfully following in Descartes’ footsteps. If this is so, it takes a very peculiar reading and interpretation of him.

developers, amongst whom we find Kazimierz Twardowski, the father of Polish scientific philosophy.

Brentano united scientific philosophy with descriptive psychology and a resurrected descriptive metaphysics in the style of Aristotle. His pupils divided into schools following paths which, whilst differing from each other, always remained faithful to their source. In the case of phenomenology, special techniques of eidectic analysis were introduced into the Brentanian picture. A different case is that of Meinong and his co-workers, who worked Brentanian ideas into a general theory of objects and properties.

9. The peculiarity of the Polish school to a large extent consists in its having woven together conceptual and linguistic analyses with a structure of logico-philosophical theories based on the free and subtle use of logical tools. As a result, ontology and the other traditional components of philosophy have realised a model of philosophy maximally *more geometrico*, i.e. a paradigm of logical philosophy.

The present work is a contribution to ontology understood in precisely this way.

10. The part played by logic in the revitalisation of the Cartesian and Leibnizian paradigm determines its contemporary shape. Linguistico-logical analysis is dominant and the philosophical trend connected with the realisation of this model carries the official name of analytic philosophy.

There is however an absence of a corresponding emphasis on synthesis. Leaving aside the natural sciences and contrary to the pointers given by Descartes himself, it is as if it has been neglected. Yet analysis and synthesis go together — they complement each other. The situation in contemporary philosophy thus brings to mind the image of a mare, still fertile and fair, but fallen lame.

In short, in philosophy today, the predominance of analysis dwarfs the role of synthesis and the effect is a one-sidedness.

11. The remedy contains three ingredients: Firstly, a symmetric generalization of the method **AS**, by which I mean the introduction of a **General Theory of Analysis and Synthesis** (or **GAS**, for short) and the consequent application of its measures.

Secondly, an emphasis on a theory of synthesis until it reaches a point of equal importance with philosophical analysis. We recall that that latter analysis is currently composed of four elements: linguistic analysis, conceptual analysis, eidectic analysis, and - last but not least - logico-mathematical analysis.

We need to complete our analytic philosophy with suitable synthetic complements. Indeed, one may say, with an suitable synthetic philosophy.

Thirdly, a convergence of the methods of philosophy with the methods of the natural sciences and a continuation of the analogy — *via* logic — with the methods of mathematics. This means placing greater emphasis on the mathematical modelling of the philosophical data supplied by everyday experience, by the natural sciences and the humanities, and, above all, by a method specific to philosophy for the preliminary analysis of all the data. The methods of phenomenology may prove in this regard to be extraordinarily helpful⁸.

A reanimated phenomenology could well turn out to be a great ally of logical philosophy in its systematic research.

Content-Related Sketch

12. We are to understand ontology not with its universal, contemporary meaning⁹ but the classical, Greek meaning. Ontology is therefore a theory of being. A being is thus something which is.

That which exists — a thing, a unit, a process, an event — also is, but not conversely. Not all beings exist. Existing is more than being. The concept of being is a wider concept than the concept of existing¹⁰.

13. What is more essential is that the concept of existence is complex and multi-aspect. Four aspects are basic:

Particular Aspect: in which particular beings are given, that is particular entities as the objects which they are.

Generality (or Totality) Aspect: the general totality of that which is (this totality creates the so-called ontological space)

⁸ I am thinking here mainly of the results of classical phenomenology. What took place in Germany, France and America, after World War II, with a few exceptions (e.g. certain analyses of M. Merleau-Ponty or H. Ey) has yielded, sorry to say, mainly rubbish.

⁹ In particular, I don't identify ontology with logic (*Pace* Bocheński) but I treat the theory of sets as a mathematical discipline close to ontology, which may determine one of many ontologies coming from mathematics. I do not therefore treat it as a single modern ontology, as do Quine, Suszko and ever so many followers and imitators. It is one of many. It is true indeed to say that it occupies a special place as an ontological frame of thought.

¹⁰ According to the Scholastic way of thinking, a failure to distinguish existence from being leads to that great artificial problem of the ways of being or the paralogisms of the sort "how can that which not exist exist?". We should rather ask "how can that which does not exist be?". We observe that, on the basis of Parmenides' statement that there are no non-beings, one may not ask "how can that which is not be?" precisely because there is nothing such. (see [3])

Ontic Aspect: the entirety of that which is; that is, the totality of particular beings and logical space taken as a whole, as **One**.

Onto\logical Aspect: the principle of integration of that entirety, the uniting principle, **Logos**.

It may still be necessary to distinguish further aspects but those I have listed above will provide us with sufficient difficulties for the present. Let us therefore confine our attention to them for now.

14. The Polish language is poor in names for types of being. Greek, English, German and other languages have at least two basic forms and two articles — a definite and a indefinite, which allows us to create at least four names, which is as many as we will need.

I shall therefore establish the following convention¹¹: “being” signifies any particular individual, that is each entity taken under the particular aspect and “Being” in turn I will use to signify any being taken under the generality aspect. Being¹² is simply the ontological space. “the Being” signifies being under the ontic aspect. The word “BEING” or the Greek “Logos” signifies being taken under the onto\logical aspect.

15. Ontology is thus the most general theory of being, that is, taken under each of the four aspects.

If we take into consideration the distinction between planes of being (there are at least five of such) which I sketched in §12 of my “On Philosophy” (see [4]), with which human beings are involved with, then we will get as a result at least twenty types of being and in turn at least as many varieties of ontology.

He who would say that ontology is a straightforward discipline would thus be lying.

16. Let us concentrate on the plane of being itself. Our considerations here will bear on general ontology with particular ontologies being thus bracketed for the moment.

The path to such considerations is opened by the introduction of a sufficiently general and subtle conceptual network. This is usually determined by those basic categories which are given by FUNDAMENTAL OPPOSITIONS.

17. The ontological universe is ordered by certain fundamental relations.

¹¹ See [1]

¹² There is of course the danger here of ambiguity when the word “being” occurs at the start of a sentence. Furthermore, the word “being” used without any additional definitions or used in the absence of an explicitly introduced convention is that typical everyday word with its many variants and meanings.

With regard to the relation *being simpler* (a basic relation of any analysis) and *being complex* (a typical relation for synthesis), we obtain *via* their contrast the opposition below:

simpler — (more) complex

following this thought through to its limits we obtain the opposition:

simple — maximally complex (possible world)

We observe that in the case of analysis that which is called simple is most often *an atom* or *element*; in the case of synthesis, however - *an element*.

In view of what is logically primary, we have the opposition:

primitive — secondary (derivative)

in terms of being

In view of the number of primary elements we obtain the fundamental opposition of Parmenides:

One — Many

It would be possible to delineate the whole set of oppositions. These four shall however suffice for our present inquiries.

18. The opposition *primitive — secondary* is the generator (and indeed the effect) of a basic Greek intuition that that which is given in our everyday life is - in view of its transience and accidentality — the result of some more primary relationship and foundation of being. That primary order is the Logos.

Both by definition and by the Axiom of Extensionality, there is one BEING. And ONE is one.

19. Let us now ask what is first in terms of being. ONE or something else? And how many such objects primary in terms of being are there: one or at least two? These questions lead us directly to two opposing ontological positions:

monism versus pluralism

Monists state that there is only one object primary in terms of being and it is ONE. Pluralists state that there are at least two objects primary in terms of being and that ONE may be either of them (cf. Plato, Plotinus)

20. We observe that monism leads to a problem: how do we obtain many from one? This is the problem of PLURALISATION. Conversely, Pluralism asks how do we obtain one from many? How do we integrate the many? That is, how do we get ONE from many? This leads us to the problem of UNIFICATION.

Both operations — pluralisation and unification — are conjugate and presumably dual with respect to each other.

ONE $\xrightarrow{\text{pluralisation}}$ MANY $\xrightarrow{\text{unification}}$ ONE

21. A natural pluralitic ontology is therefore an ontology of integration of objects, connecting them into compounds, combinations. From this we take the name **combination ontology**¹³ — in short: **CO**. Among the ontological pluralists we find Plato, Aristotle and all those counting themselves Aristotelians, Leibniz, Russell, Wittgenstein, Husserl, Hartmann, Ingarden, and others. In a word, rather a lot of working ontologists.

In the other direction, a natural monistic ontology is a transformational ontology, in short: **TO**. It is very easy to imagine pluralisation at the level of the primary beings as a result of suitable transformations (*modi*) of a ONE. Amongst the monists, we find Parmenides, Spinoza (the first conscious transformational monist), Hegel, Bradley and, last but not least, Einstein.

22. It is my fundamental intuition that both types of ontology in a certain sense complement each other. A general theory of Analysis and Synthesis, **GAS**, may serve as a framework for the combined generalisation of these two fundamental types of ontologies of the planes of being, that is of being itself. This is a topic for future research.

I shall here be developing **GAS** in a rather one-sided fashion — keeping an eye on a general combination ontology.

Three Approaches to a General Theory of Analysis and Synthesis

23. The space of analysis and the space of synthesis, taken individually or together, may be described from the inside or the outside (the latter being the easier of the two).

There are two types of **external** account: **ordinal** and **operational**. A pure ordinal account in effect assumes that the ontological space of all beings is given and explicitly ordered in view of the first two oppositions listed above, which express appropriate ordering relations, respectively analytic and synthetic.

An operational account is an indirect account, in part external and in part internal. We describe the ontological space as a space equipped with two appropriate operators — **an analyser**, which decomposes complex objects into simpler ones (into parts) and a **synthesiser**, which integrates groups of objects into their compounds, synthesising them.

¹³ We observe that the so-called combinatorial logic is a simplified version of combination onto\logic.

This account assumes, just the ordinal account does, that the ontological space is given and also that its (hidden) order is given. In both accounts, it is a matter of grasping and examining that hidden order: in the first case, by the methods of the theory of relations and in the second, by the methods based on the theory of sets and a suitable calculus of operators.

Both of the aforementioned accounts thus rest on the assumption that the ontological space along with its natural orders is given and our main task is to unearth its hidden order.

On the side remain fundamental ontological questions: Where does this ontological space come from? What is its source? What constitutes it? What is the source of and principle behind this hidden order?

24. A partial attempt to answer these questions is given by an **internal (modal)** account of the space of analysis and synthesis. We shall treat it as a complex of primary and secondary objects, which are **marked** (modalised) in such a way: that simpler objects naturally join together in compounds of increasing magnitude, constituting in this fashion the ontological space and generating both fundamental orders of analysis and synthesis of this space.

I have given a preliminary sketch of the ordinal and modal approach in [2] and I intend to publish a final account of the whole combinatory ontology in [7].

Now, I shall concern myself with a semi-formal outline of an account of three approaches to the General Theory of Analysis and Synthesis.

The Ordinal Approach

25. Let OB be a family of all objects in general. Let the universe of considerations (of a given area of study) be a subset of it: $U \subseteq OB$

We shall examine in turn three ordered spaces.

Space of Analysis, $AS := \langle U, < \rangle$

where $<$ is the relation is *simpler than*

Space of Synthesis, $SS := \langle U, \prec \rangle$

where \prec is the relation *to be a component of*

Space of Analysis

and Synthesis, $SS := \langle U, <, \prec \rangle$

26. These approaches immediately generate a series of questions. What are the natural axioms for the relation is *simpler than* $<$? Aren't the usual mereological axioms too strong?

Analogously, what are the natural axioms for the fundamental relation of synthesis, *to be a component of* \prec ? In turn, what axioms bind both relations, that is both analysis and synthesis taken as a relational whole?