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A First Look at the Difference Between Abstraction and Idealization

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I. Introduction

This paper assumes three very different premises. The first is historical, the second is of a general nature, and the third concerns my decision to consider only one particular component of the theme.

As regards the historical premise, I wish to call attention to an important difference between modern and traditional philosophy. Modern philosophy has apparently no need of the concept of abstraction, although it was one of the most central notions of ancient and traditional philosophy. There are, of course, excellent reasons for this difference of attitude — of which I only make reference to one of the most important: Frege's invention of quantification theory. This consideration alone enables us to understand that the acceptance or rejection of abstraction procedures has consequences that invest the deep-lying mechanisms of the logical theories that we employ. This, however, is not the point that I wish to discuss here. For the time being I only wish to note the complexity of ancient discussion of the concept of abstraction. The point is that such discussion was often vitiated by an original sin. When Boethius introduced the term 'abstractio' into Latin, he was using it to translate two different Greek words: the Aristotelean 'aphairesis' and the Platonic 'chorismos'.¹ The former was used by Aristotle in the epistemological procedure whereby he constituted, by means of reduplication, the field of enquiry for scientific

¹ On the history of the concept of 'abstraction' see Aubenque 1971, Mikkola 1964, Schneider 1970, Ritter 1971. Some works adopting a systematic approach are: Angelelli 1979 and 1984, Armstrong 1978, Beth 1956/7, 1957, and 1970, Epstein 1990, Fausti 1947, Fine 1985, Husserl 1970 (II Investigation), Kühne 1982, 1983 and 1988, Lorenzen 1962 and 1965, Meinong 1877, Parsons 1971, Peano 1915, Poli 1988 and 1992c (ch. 4), Pollard 1987, Prätör 1988, Resnik 1981, Santambrogio 1987, 1992a and 1992b, Scholz and Schweitzer 1935, Simons 1981, 1989 and 1990, Weinberg 1965, Weingartner 1976, Weyl 1949. See also the entries in the very recent Burkhardt and Smith 1991 and in the *Oxford Companion to Metaphysics*. Simons 1990, 18 notes that *The Encyclopedia of Philosophy* conspicuously lacks an entry for either 'abstract' or 'abstraction'.

and philosophical reflection. The latter, which means ‘separation’, referred instead to the universe of Platonic ideas. Thus, from the very beginning, the important distinction between Aristotelean ‘abstraction’ and Platonic ‘idealization’ was blurred by Boethius' use of a single term.

The distinction, however, was so important and so profound that it could not be neglected, and it inevitably cropped up again in subsequent periods of philosophical enquiry. Although many scholastic philosophers continued to use Boethius' by now famous ‘abstractio’, they nevertheless asserted that there were *two* different kinds of abstraction. Cajetan, for instance, distinguished between formal abstraction (the separation of form from substance) and total abstraction (the separation of the universal from the particular). Although mediaeval philosophers disagreed as to the properties that characterize one or other of the two forms of abstraction, what matters for our present purposes is that they continued to differentiate between them.

In modern philosophy, the distinction between abstraction and idealization became (I believe) obscured in the debate between Locke, Berkeley and Hume on abstract or general ideas, but it was subsequently given major emphasis again in the theories of Wolff and Kant.²

If we move to the early decades of this century, perhaps the contemporary philosopher who has given most explicit treatment to the distinction is Husserl.³

In the meantime, however, something rather odd happened: the debate somehow changed its form. Abstraction became almost exclusively ‘definition by abstraction’ and entered the sphere of competence, so to speak, of analytic philosophy. Idealization lost its metaphysical properties and became the battle-horse of the so-called Poznań School.⁴ In both cases, what seems to have been effectively lost was awareness that there may be a positive conceptual correlation between the procedures and products of abstraction and the procedures and products of idealization. This is my first point.

After this extremely brief and incomplete historical review, I move to my second premise; my general premise. Here too, however, lack of space obliges me to advance only one broad thesis, which runs as follows: if, as I assume here, study of the differences between abstraction and idealization involves several of the fundamental problems of scientific and philosophical knowledge, then the best general framework for exploration of these differences is that of the *convergence* between philosophical analysis and scientific research. Accordingly, we must endeavour to add an element of the scientific to metaphysical research, and an element of the metaphysical to scientific research. This proposal of (at least partial) convergence between science and metaphysics rests on the consideration that there are certain areas of scientific

² An indispensable reference here is Vaihinger 1911. Developments subsequent to Kant — both German idealism and the various forms of neo-Kantianism — can also be interpreted as variations on the connection between abstraction and idealization, where the latter is taken as the foundation for the former.

³ Husserl 1970. I lay no claim to historical completeness here, since thorough treatment should also consider Cantor, Peirce, Vaihinger and Whitehead — at least. The reference to Husserl, moreover, should be extended to include the other exponents of the school of Brentano — Meinong, Marty and Twardowski in particular.

⁴ On the theoretical output of the Poznań School see at least Brzeziński, Coniglione, Kuipers and Nowak 1990; and Brzeziński and Nowak 1992; on the evolution of the school see Coniglione 1990.

enquiry which encounter the same difficulties as metaphysical enquiry. And here I am referring in particular to the study of the mind and to the analysis of natural language.

Yet the correlation between science and philosophy extends further than the philosophy of mind and of natural language. I believe that there is, generally speaking, some sort of correlation between a wide range of scientific forms of knowledge and an equally wide range of philosophical notions. Except that, for many of these areas of scientific knowledge, the correlation is not with metaphysics but with ontology.

In very rudimentary terms, the difference between ontology and metaphysics reflects the difference between the theory of the possible and the theory of the actual.⁵ The former is an intrinsically formal theory; the latter may also be formal, but not necessarily so.⁶ One may also say that what we have here is a difference between analyses carried out according to the Tarskian hierarchy of theory and metatheory (ontology) and analyses carried out according to a non-Tarskian model where metatheory is part of a theory (metaphysics). When the question is framed in these terms, one understands why analysis of the mind and natural language have both the metaphysical structure of totality: to study the mind we cannot avoid to use our minds, just as to study natural language we cannot avoid to use natural language itself. The presence of this irremovable form of internal reflexivity entails that every procedure based on the separation of theory and metatheory is bound to be futile. Hence a plea to reconsider the proposals, ideas and suggestions of traditional philosophy is not as strange as it might first appear. Indeed it is entirely obvious, or at least it should be, that our reconsideration of ancient doctrine must use all the tools at our disposal, and without neglecting the results obtained by contemporary enquiry. This is my second premise.

My third premise is the following. If we begin with the concept of ‘abstract’, it naturally enters into two oppositions: between that which is abstracted and that which is ideal or idealized; and between abstract and concrete. These two oppositions are clearly different, although they have some features in common. To simplify my treatment, for the time being I shall entirely ignore the opposition between abstract and concrete, and concentrate only on the opposition between abstract and ideal.⁷

II. The difference between abstraction and idealization

In what follows, I shall present a proposal that seems able to systematically cover the main differences between abstraction and idealization.

The starting point of my analysis is that ‘abstracting’ means ‘leaving aside’, ‘omitting’. According to the interpretation adopted in this paper, it does not mean ‘extracting’ something or ‘drawing something forth’. When one abstracts it, one does *not* obtain a new object. Abstraction does not break the object down into its constitutive parts or components.

⁵ I use the terms ‘metaphysics’ and ‘ontology’ in the senses given to them by Meinong and Ingarden.

⁶ See Poli & Libardi 1993.

⁷ On the opposition concrete/abstract see, at least, Künne 1982.

Idealization, on the contrary, constructs *new* objects.⁸

In other terms, abstraction is an operation that takes place within a particular universe of discourse. It involves the setting aside of a particular section of the universe with regard to the predicates being considered. Let us consider the universe U of individuals I. Each individual of the universe is defined with regard to the predicates of the (theoretical) language describing the universe. For the purpose of abstraction, we select those individuals of the universe that possess one or more particular features in common (or which do not possess such features). In this sense, abstraction is a relation of equivalence among the individuals of the universe of discourse. Abstractive theories therefore transform the structure of a theory's universe of discourse without modifying the individuals of the universe. In this sense, abstraction allows us to *classify* the individuals of an universe. This is a linguistic and not an ontological type of procedure. For abstraction, individuals are given, like the characteristics of which they are composed.

The procedure of concretization, compared with an abstractive theory, is a procedure of individuation brought about by imposing a relation of order. The path to abstraction requires the introduction of equivalences. The path to individuation requires the introduction of an order, possibly total and strict. Nothing else is necessary because individuals are already given.

The case of idealizational theories is rather different. We have to distinguish two different types of idealization: *a posteriori* (descriptive) idealization and *a priori* (constitutive) idealization. Let us look first at descriptive idealization.

With descriptive idealization we do not have a transformation of the structure of the universe but a modification of the individuals of the universe, and therefore the construction of an ontologically different universe. If abstraction involves the subdivision of the universe into the set of individuals in possession of property P and the set of individuals not possessing property P, idealization eliminates from the theory's language both the affirmation and the negation of a certain property. In other words, that particular property is eliminated. This has two possible consequences with regard to the universe: (i) the individuals of the universe are no longer determined in relation to that property, (ii) the disappearance from the universe of discourse of those individuals which (A) were determined by the eliminated property or (B) whose definition was determined, either individually or collectively, by the eliminated property. In the first case, we have an ontological transformation of the universe through the transformation of its individuals. In the second case, we have a transformation of the universe due to the elimination of a part of the same.

The complexity of idealization obliges us to proceed with care and to examine some exemplary cases in detail. The simplest case is (ii.B). Let us begin therefore with this. Let us suppose that our universe of discourse is the astronomical universe. We wish to study our solar system. To do so we construct a new theoretical universe composed of the sun and the nine planets that revolve round it. In this way, we eliminate from the start all the other stars and planets of the universe. We can thus easily construct a model of the working of the solar system, without taking the entire astronomical universe into consideration. Naturally, this model will not demonstrate exactly how the solar system works in reality because we have eliminated the rest of

⁸ According to Vaihinger 1911, Wolff was the first philosopher to make systematic use of the concept of idealization; Kant himself was perfectly aware of its value. Cf. also Poli 1992a.

the astronomical universe, and therefore also a whole series of forces which affects the actual working of the real solar system. Idealization, in this case, is an example of how a reduction in the complexity of the universe may allow us to master a part of it. An operation of concretization in situations of this type consists of introducing a suitable *factor of correction* that balances the elimination of real forces due to the sought reduction of complexity. The case of the individuals eliminated as a result of the elimination of that essential property by which they are determined is similar to the preceding case and does not cause particular difficulties once it is understood that the essential properties are those that constitute the object by defining it.

The remaining case is by far the most interesting. Idealization, in this case, is not limited to the redefinition of the boundaries of the universe, but *constructs a new universe with new individuals*. The real problem here concerns the relations between the primitive universe and the new universe. In other words, the problem is that of the relations between the individuals of the old universe and the individuals of the new one. Such individuals in fact are still genetically the same individuals. The problem therefore is that of genetic identity against ontological difference. Let us consider the following examples. Let us suppose that we wish to construct a theory of rational action. In this case, the individuals of the universe are the agents of the theory. These are defined independently of the physical or chemical properties of their bodies and by subjecting the expectations and motivations that influence their actions to particular restrictions. In the world, we never encounter agents, but rather persons endowed with bodies with a particular chemical and physical structure and an extremely varied set of motivations and expectations. In our passage from the universe of the theory of persons to the universe of the theory of agents, radical transformations have been imposed on the individuals of the first universe. The reasons are clear: persons are too complex for our scientific tools. Agents, on the other hand, possess a complexity that can be treated mathematically and therefore allow the construction of formal theories, thus enabling us to make predictions. It is obvious that, strictly speaking, only persons exist, whilst agents have only an existence of a theoretical nature: they are therefore fictional constructions that allow us to regulate and manipulate a certain set of data. They exist, therefore, only in the model. On the other hand, the individuals of the universe of persons must have particular relations with the individuals of the universe of agents. We are really still speaking, in a way, of the 'same' individuals, of the 'same' fragment of the world.

Constitutive idealization occurs when the possible forms of objects are determined. Unlike descriptive idealization, this is an *a priori* discipline. To avoid misunderstandings, I should clarify the sense in which I employ the terms '*a priori*' and '*a posteriori*'. Perhaps the best way to provide them with unequivocal meaning is to say that an *a posteriori* idealizing procedure is one that aims to construct a model of something. Evidently, in order to construct a model of an entity, one must first have an idea of how this entity is made or of how it acts. An *a priori* procedure, instead, is a constitutive procedure, one that creates a particular context and the individuals of that context. It is therefore *a priori* with respect to the individuals that it constitutes. In this sense, all procedures have both an *a priori* and an *a posteriori* aspect. The procedure with which a model is constructed is *a posteriori* relative to the object that it seeks to model and *a priori* relative to the object that it has modelled.

Saying that constitutive idealization is *a priori* and therefore determines the possible forms of objects is to attribute to it the same role as that performed by the Husserlian concept of formal ontology.⁹

In formal terms, at issue here are the quantifiable variables of the theory. The traditional interpretation to the effect that being is univocal amounts to admitting only one single type of category, and therefore only one single type of quantifiable variable. Any other kind of variable present admits at most to a substitutive, that is, purely nominal, interpretation of quantification. The presence of only one type of quantifiable variable does not prevent it from being sub-divided into specific subclasses, which are quantifiable even when taken separately.¹⁰ From this point of view, being is a genus, and from what I have already said, it is clear that this is not a procedure of idealization but of abstraction.

Under the other traditional interpretation, being is analogous (multivalent). In formal terms, this amounts to saying that there are different categories of quantifiable variables which represent different modes or categories of being. What this position must explain, however, is how the different modes of being unify themselves. And the formal instrument used to clarify the structure of such unification is the theory of predication.¹¹

If various kinds of variable are present then we must recognize various corresponding categories. It is also evident that the various categorizations of metaphysical reflection — that is, reflection on the category ‘object’ — may give rise to new insights, in particular as regards the concept of the possible form of the object.

III: How many realms of being are there?

At this point of our analysis, we may advance some general observations. In order to better understand the different ‘grammars’ of abstraction and idealization, I would suggest the thesis that the realms of being are three and not, as is usually believed, two. That is to say, according to the thesis we are going to discuss, it is not enough to distinguish between individual and general, or between complete and incomplete, but we must make a tripartitioned consideration of the realms of being. This thesis has been also suggested, among others, by very diverse schools or scholars, like the Stoics in ancient philosophy, Thomas (1225-1274) and Gregory from Rimini (1300-1358) in the medieval period, Meinong (1853-1920) in contemporary philosophy.

⁹ On the concept of formal ontology see Cocchiarella 1991, Poli 1992b and 1992c.

¹⁰ Cocchiarella 1991, 641.

¹¹ Cocchiarella 1991, 641-3. Resorting to a typology of quantifiable variables, however, is not enough to distinguish between being as genus (= one only type of quantifiable variable) and multivalent being (= various types of quantifiable variable). Consider, for example, combinatory logic. This has neither variables nor quantifiers, and its structure seems less akin to a conventional predicative structure than to a philosophical position with its roots in Aristotle and reformulated by Brentano and Kotarbiński. The extreme form of nominalism developed by these thinkers, usually called reism, is based on the ‘determination of things through things’. Here we clearly have an ontology with only one type of entity, but if the logic corresponding to it were a combinatory logic, there would be no variables and no quantifiers. This means that nominalist metaphysics can be translated into logic within at least two different categorial frameworks; frameworks, these, which even if holistically equivalent are nevertheless categorially distinct.

Stoics drew a distinction among *soma*, *on* and *ti*; Thomas distinguished the nature of things into singular, abstract and absolute nature; Gregory from Rimini distinguished into *res*, *ens* and *aliquid*; finally, Meinong distinguished between realm of being in a strict sense, including real and ideal objects, and realm of *Aussersein*, including pure objects.

Schematically:

(i) The three types of entity considered by the Stoics are the *soma* or the individual, effectively existing body, the *on* or entity, and the *ti* or something indeterminate. That which actually exists, the genuine object, is only the *soma*. An entity, by contrast, could well be *asomaton* or incorporeal. Thus while the *soma* is subject to the principle of individuation, the *on* admits at most to some criterion of identity, and the *ti* to neither identity nor individuation.¹² For them the *on* can be objective without having to be existent, a *soma*.

(ii) For Thomas singular nature is the primary, individual substance; abstract nature is due to intellect and concerns the conceptual consideration of individual substance; finally, nature that is absolutely considered deals with the essential constituents of individual nature, its definitory notes. The latter is considered, Thomas says, “*in statu differentiae vel solitudinis*”,¹³ i.e. without considering its exemplificability or insertability into a structured theory or context.

(iii) The distinction introduced by Gregory originates from the questions ‘What do we know?’, ‘What is the object of knowledge?’. Gregory distinguished among three kinds of object: the *aliquid*, which denotes every thing, simple or complex, true or false; the *ens*, which denotes only true things; and the *res*, which denotes only the existent.¹⁴

(iv) Meinong's *Gegenstandstheorie* considers objects from the point of view of their nature. The distinction between complete and incomplete objects is consequent. Complete objects, in their turn, classify themselves into real, those that for their nature can exist, and ideal, those that because of their nature cannot exist. The realm of complete objects is the realm of being, that of the incomplete objects is the realm of *Aussersein*, a realm that cannot be scientifically considered because of its extreme plenty. And in a passage recalling Thomas' previous quotation, Meinong affirms that it is a question of “*a strange kind of desert where no mental progress is possible*”.¹⁵

There is an interpretation that allows us to sustain that, in spite of the evident differences among the theories of so different authors, all of them use the same tripartition. This is the interpretation according to which the above mentioned distinctions deal with the classification of the furniture of universe into objects that

¹² Laerzio 1925, ch. VII. See Melandri 1989, 69-70.

¹³ Thomas, *Quod*. VIII, q.1 a. 1; *De ente et essentia*, ch. 4. Cited by Fausti 1947, 73-4.

¹⁴ Gregory refers his theory directly to Aristotle. Cf. Aristotle, *Categories*, 12b 6-15 and *Metaphysics*, 7, 1017 at 31-34. See Elie 1936, 27-8.

¹⁵ See Findlay 1933, 57.

because of their nature can exist (*soma*, singular nature, *res*, real), objects that because of their nature are *objectively* describable even if they cannot exist (*on*, abstract nature, *ens*, ideal) and a third remaining category of objects that is so different from those of the first two categories that the community of philosophers has still not managed to give them a generally accepted name. As for the aforementioned partitions we speak of the class of what was called *ti*, nature in the absolute sense, *aliquid*, pure object. Meinong is probably the author who more than any other tried to characterize what belongs to this class, identifying their distinctive traits in comparison with real and ideal objects.¹⁶

Setting real and ideal objects against pure ones, Meinong notes that the main distinctive characteristic is that the objects of the first two classes are *complete*, while those of this third class are *incomplete*. This single distinction allows Meinong to attest that incomplete objects, precisely because of their partiality, are *Aussersein*.¹⁷ To this realm belong impossible, literary, fantastic, mythical objects, as well as concepts, ideals, imaginations. In an expression, all objects of imaginations and fantasy, with no limitation, belong to it.¹⁸ We can characterize it by saying that in its broadest form the realm of *aliquid* is the realm of imaginary.

Abstraction and idealization are operations connecting the different realms of being. In this sense I shall say that abstraction is the operation that (i) connects the realm of *res* with that of *ens*, and that (ii) it enters the realm of *ens* itself as a procedure of classification of the individuals composing it. Idealization is instead that kind of procedure connecting both *res* and *ens*, on one side, with *aliquid*, on the other one. As we already know, this second procedure, differently from the first one, has an ontological commitment.¹⁹

¹⁶ See also Poli 1993a. Note that all the authors cited accept the thesis according to which what exists or can exist is also objectively describable. That is to say, that these objects present some form of (ontological) independence from their description. This also means that from the point of view of the study of the being, real things are just a subset of objectively describable things that can be identified by the adoption of the property of existence (or, in its modal version, they are what can exist). This, in turn, involves the fact that, if we remain inside such a point of view, the study of reals does not raise any particular problem.

¹⁷ Meinong 1960, 83 ff.

¹⁸ Husserl 1969 calls this the first level of logic, a level so rich that it may collapse precisely because of its richness.

¹⁹ It would now be extremely interesting to devote our analysis to the *Aussersein*, addressing the problem of how we can speak of the objects pertaining to it in absolutely neutral terms, without surreptitiously introducing conceptual frameworks or theoretical constraints that belong to our way of speaking of things and do not belong to thing in themselves. This problem is particularly dramatic for *Aussersein* objects, because in their generality those objects are extremely weak and *sensitive to the way in which we speak of them*. We understand the reason for such a state of affairs if we return to Meinong's description of that realm. Objects possessing *Sein* are complete objects. That is to say they are objects able to maintain their individuality and to 'resist' the descriptions concerning them. Concerning such a kind of object, we can see if their description is faithful or false, adequate or inadequate. *Aussersein* objects, on the contrary, precisely because of their incompleteness, are instead 'fragile' and sensitive to the descriptions involving them. In other words, when we speak of an *Aussersein* object, it is always possible to attribute it aspects, dimensions or structures that do not pertain to it, without realizing that, under the description, the original object becomes a different object. That is why we should now address the problem of directly depicting language, i.e the problem of the characteristics that a neutral language must

In some sense, ‘*res*’, ‘*ens*’ and ‘*aliquid*’ are all objects or kinds of objects. These terms can be used in a variety of ways, and many philosophical misunderstandings have arisen from the overlapping of their various senses. One possible distinction is between the distributive meaning and the collective meaning of ‘object’. Used *distributively*, ‘object’ means *thing*. Every man, every thing, every fact is an object or entity in the distributive sense. Used *collectively*, ‘object’ means *whole*. The definition itself of metaphysics as the science of being states in effect that metaphysics does not occupy itself with the entities of this or that genus but with the whole, the totality, the entirety.²⁰

A different distinction concerns analysis of objects either with respect to their *effective composition*, or with respect to the *concepts of which they are instances*, or with respect to the *form* of these instances. I shall say that the object as a *whole* admits its decomposition into parts, as a *thing* its classification into *genera* and *species*, after separation of form from matter, and that the object as *something* can be categorized.

Terms like ‘whole’, ‘individual’, ‘thing’, ‘something’ are often taken to be synonymous; a linguistic abundance that borders on wastefulness. There are, in fact, cogent reasons for framing these various terms within a systematic network of relations and dependences. One of the best is the series of distinctions we have already mentioned. Consider again for instance Gregory's distinction between *aliquid*, *ens* and *res*. We can update Gregory's formulation to a more modern context by saying that the *aliquid* is indifferent to the being or non-being of what it denotes, that it covers the possible and the non-possible, the actual and the non-actual; the *ens*, instead, is restricted to the realm of abstract being (comprising the abstract consideration of the real beings), while the *res* considers the concrete being, the existent. We may also say that the *res* is the whole, the *ens* is the thing, and the *aliquid* the form of instances. We will see that the *aliquid* as form of instances has an incredibly wide range of possible variations and depends on the way in which we define ‘form’.²¹

possess to be able to speak correctly of the *Aussersein*. If we want to study the framework of the *Aussersein*, we must pay a close attention to any condition we impose on it. It is clear that some conditions, even if only local, must be introduced, otherwise we cannot do anything at all. It is no coincidence that Thomas speaks of ‘*statu solitudinis*’ and Meinong of ‘mental desert’. What is important is to study carefully the consequences of the different conditions that are introduced, starting from the simplest and weakest. See Poli 1993a.

²⁰ Czezowski 1948, 70.

²¹ The distinction between that what exist (as *res*) and the thing (as *ens*) stands in perfect parallel to that between collective and distributive. As early as the 12th century, Abelard drew a clear distinction between the two cases in his theory of the different kinds of whole: integral or collective (*res*) and distributive (*ens*). For Abelard, the integral or collective whole: (i) is not predicated by its constitutive elements; (ii) is not a universal whole, (iii) is composed of parts even though it is not reducible to its parts; (iv) involves only a singular predication. The distributive whole on the other hand: (j) is predicated by its constitutive elements; (jj) falls within the doctrine of genera and species; (jjj) is a universal whole; (jv) involves a universal predication (Abelard 1969, 166, 193). Let us take the example of ‘horse’. The collective class of the things that form the horse — head, legs, etc. — do not constitute the horse (cf. (i)). The horse of which we speak is that particular horse, that specific and unrepeatable individual (cf. (ii)) formed of parts but which is not simply the sum of its parts, because it, the horse, is not the simple aggregate of such parts (cf. (iii)).

In terms of my present analysis, the *aliquid* is some form of (the instances of) things. In traditional terms, this is an area of analysis that belongs to metaphysics, in particular to the theory of transcendentals. An important aspect of traditional enquiry is that, since the *aliquid* is considered apart from the thing, it is based on the distributive meaning of object (= *ens*). Hence one may say with Albertus Magnus: *quodlibet ens est unum, verum, bonum*.²²

The traditional meaning of ‘transcendental’ is historically and conceptually much more sophisticated than is generally believed, even though it seems that it was never given definitive treatment. Using a terminology derived from Kant and Husserl, we may say that transcendentals are those categories that constitute a sphere of enquiry.

Let us now turn to the extremely complex concept of ‘form’ or ‘essence’. For instance if we intend it in the sense of logical form, we can say, using a doctrine ascribable to Quine²³ and Kaplan²⁴, that the logical form is the way in which we estimate the value of truth in an utterance. In this sense the concept of form is a semantic notion, determined by some rules of valuation of the language that tell us how to ‘build’ the semantic value of an expression starting from the value of its logically simple components.²⁵ But if we adopt a formal structure that is sensitive not only to the values of truth, but also to other components (for example, to the meaning connections between antecedent and consequent), then semantics incorporate other aspects of the propositions in addition to their value of truth and to the forms of composition.²⁶ But it is also possible to refuse the tradition inaugurated by Frege and Russell and to attest that it is not true that the conditions of truth of an utterance determine its syntax. The objection to this choice is that utterances with the same form can possess different conditions of truth. Consider for example the propositions ‘the horse captured by Bellerofonte was white’ and ‘the horse that won the race is

The difference between x-part and part-of-x, to use Henry's terminology, comes into play here. (Henry 1972, 124; Henry 1984, § 4.541, Henry 1991, §§ 1.4, 2.3 and 3.41). The x-parts are the components of the horse insofar as they subsist independently of their conjunction. That is, they are the components in their autonomous ontological givenness. The parts-of-x, instead, owe their subsistence to the x itself and exist as parts-of-x only if x exists. The passage from x-part to part-of-x requires the imposition of a definition which transforms what might otherwise be simply a mass into a real and proper whole. This whole, finally, entails a strictly individual predication (cf. (iv)); that is, it cannot be properly considered a universal. The point is a subtle one and relies on an accurate reading of Aristotle's mereology. On this see Poli, Dappiano & Libardi 1993 and the hints in Henry 1991. Distributive wholes, on the other hand, can be predicated by their elements. Of every individual belonging to a class one may say that it is of that class; that is, it possesses the defining features of that class. Every single instance of a horse is a horse (cf. (j)), since it can be analysed by genus and by species (cf. (jj)): the individual belonging to the class ‘horses’ (species) is the same individual that belongs to the class ‘animals’ (genus). They can be properly considered to be universals (cf. (jjj)) and usual predicate theory applies to them.

²² Überweg 1915, 470. The entity is one in the case of presentation, it is true in judgement, it is good with respect to volitive acts. ‘True’ in this context means that it is the object of knowledge, and ‘good’ signifies that it functions as an object of will. See Aquinas, *De veritate* I, qu. 16, art. 1: *Sicut bonum nominat id, in quo tendit appetitus, ita verum nominat it, in quo tendit intellectus*. See also Twardowski 1977, § 7.

²³ Quine 1960.

²⁴ Kaplan 1970.

²⁵ Lambert 1983, 42-3.

²⁶ Epstein 1990.

grey'. Pre-analytically, both are true, but the second only has an *existential* condition of truth, that is, 'the horse that won the race exists'. Traditional logic,²⁷ and with it modern *free logic*, does not require that utterances with the same logical structure must have the same conditions of truth. How ample the possible choices are can be seen if read the recent reconstructions of Meinongian semantics. On the one hand, for instance, Parsons accepts that there are partial objects, but he does not consider the difference between existence and subsistence; on the other, Zalta distinguishes between abstracts and concretes, but he considers all objects to be complete; from a still different point of view, Lambert and Routley found their own reconstructions starting from the rejection of the principle of abstraction.²⁸

The acceptance of abstract objects or of pure objects (or of both) also allows distinction among different kinds of predication. While Parsons resorts to the distinction between nuclear and extranuclear predication, Zalta distinguishes instead, as well as the traditional form of predication as exemplification (that is clearly valid for real objects), also predication as encoding. In this case we do not say that the object exemplifies this or that property, but that the object is composed or (internally) determined by this or that property.²⁹ The same results are also obtainable by developing the theory of nominalization, according to the perspective inaugurated by some observations of Frege and developed by Cocchiarella.³⁰

In conclusion, the theoretical proposal that I have sought to outline here is based on the conviction that the theory of predication initiated by Frege, and in many respects appropriated almost in its entirety by analytic philosophers, can be fruitfully called into question. One can also acknowledge, without appearing irredeemably outmoded in doing so, that traditional philosophy achieved numerous insights and indeed full-fledged theories that could be revived and developed. If one then accepts the distinction between ontology and metaphysics which I briefly introduced at the beginning of this paper, one may even argue that the revival of certain elements of traditional philosophy is perhaps the best way to construct both a scientific philosophy and a science sensitive to the solicitations of philosophy.

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²⁷ Sommers 1982, 107-8.

²⁸ Parsons 1980; Zalta 1983, 1988; Lambert 1983; Routley 1980.

²⁹ In traditional terms, this is the case that is usually considered as inherence. Both modern distinctions may be related back to some observations by Ernst Mally, who was probably Meinong's most outstanding pupil. See Mally 1904, 1912. See also Poli 1990, 1993b.

³⁰ Cocchiarella 1989.

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