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Negative Theology, *Coincidentia Oppitorum*, and Boolean Algebra

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Philosophy from the time of Plato on to the late Middle Ages, especially in the Platonic (including Neo-Platonic) tradition, is characterized by an integration of logic, formal ontology and metaphysics – rational theology foremost – that has disappeared from it in modern times. In the wake of the separation of religion from other intellectual pursuits (beginning in the late Middle Ages), which finally seems to have made religion a matter not of the head, but purely of the heart (and thus not an intellectual affair at all), most people nowadays find it difficult even to conceive how there could be a significant connection between mysticism on the one hand and logic on the other, *formal logic* at that. They even think of mysticism and logic as being inimical to each other.

It is safe to hold that this modern attitude is completely foreign not only to Plato, but also to Plotinus, Porphyry and Proclus, to Pseudo-Dionysius Areopagita, Scotus Erigena and Nicholas of Cusa, and even to Meister Eckhart (after all, his mysticism is often characterized as being “intellectual” and “conceptual”). In view of this, it is not amiss to look for a connection between Neo-Platonically inspired western mysticism on the one hand, and logic and formal ontology on the other hand (formal ontology being nowadays normally subsumed under the heading of logic).

In fact, I maintain that such a connection can be pointed out. In doing so, I shall make use of some of the conceptual resources a modern logician has at his or her disposal. This is methodologically sound; the late J. M. Bocheński has shown conclusively that modern formal logic is not a perversion of ancient Greek, Roman and medieval logic, is not “logistic” as it was rather absurdly called for a while (at least in Germany), but straight logic, which includes but also goes beyond the older logic both in subject matter and in method. (Indeed, in the degree of preservation of older results, logic is only rivalled by mathematics, and stands in sharp contrast to the natural sciences.)

The ontological structure underlying logic from the time of Plato until the middle of the 19th century – that is, the ontological structure underlying *traditional logic* – is by and large the Boolean algebra of first-order properties. The first intimations (indeed, more than just intimations) of a theory of this ontological structure can be found in Plato’s dialogue *Parmenides*, a logico-ontological work which is concerned, in its second part, with breaking new ground towards a satisfactory analysis of Predicative Being (that is, of the relation expressed in English by the predicate “X is predicatively Y”, which, for example, is idiomatically used in “Elizabeth is

beautiful”)¹ after Plato had found difficulties, ventilated in the first part of the dialogue, in his former accounts of Predicative Being, notably in the account via similarity. In the second part of the *Parmenides*, Plato – in a rather cryptic manner, there can be no doubt about that – explores the possibilities of analyzing Predicative Being by *part-relations*.² It is significant for my aims in this paper that a Boolean algebra can always be treated as a mereological structure (mereology being the general theory of part-whole-relations), and that this approach can be regarded – beginning with Plato – to have been the manner of theorizing about the Boolean algebra of first-order properties for the ancient and medieval logicians (Aristotle not excluded). (Classical mereology is often characterized as a Boolean algebra *without a null element*; one should rather say that classical Boolean algebra is a mereology *with a null element*.)

It is significant, too, for my aims in this paper that the *Parmenides* was interpreted by the Neo-Platonists (especially by Proclus) as a source of profound metaphysical insights concerning *the One*. And indeed, already from the *Parmenides* (from 137c - 142a) the assertion can be extracted which latter, by putting God in the place of the One, became the hallmark of Neo-Platonically inspired Christian mysticism and negative theology: *Of the One nothing whatever can be truly said*; and also (from 142b - 155e) that other assertion which also figures in that tradition, although less prominently, since it can easily be understood in a pantheistic way (see footnote 7): *Of the One everything whatever can be truly said*.

A greater attack on logic than the simultaneous assertion of these two theses can hardly, it seems, be imagined. The first assertion apparently contradicts the Law of Excluded Middle, the second assertion the Law of Non-Contradiction, both assertions contradict each other, and they are apparently self-contradictory. Nevertheless, there is a natural way of interpreting them in a theory of predication which is based (as traditional logic is) entirely on the Boolean algebra of first-order properties, which makes the second one true, the first false, or – with an intuitively obvious modification of the definition of Predicative Being – the first one true, the second false, while both assertions refer to the very same object throughout. The interpretation lies completely within the horizon of traditional logic, as we shall see. On it, I submit, the Neo-Platonists, considering themselves mere expounders of Pla-

¹ Predicative Being must be distinguished from Identical Being (expressed by the “is” of identity, as in “Tully is Cicero”), from Existence (expressed by the “is” of existence, as in “God is”), and from Subsumptive Being (expressed by the “are” in “dogs are mammals”). Predicative Being is the one kind of being which is a *having*, since X is predicatively Y if and only if X has Y (as a property). Only with the work of Frege in the 19th century, Predicative Being was finally separated conceptually from Subsumptive Being. Even for Leibniz – arguably the greatest logician between Aristotle and Frege – Predicative Being was merged with Subsumptive Being: for him, *praedicatum inest subiecto*. Note that the separation of Predicative Being from Subsumptive Being immediately led to the abandoning of the comparatively narrow ontological framework of traditional logic.

² This is argued persuasively in F. v. Kutschera’s comprehensive interpretation of the dialogue, *Platons “Parmenides”*. See also the article by F. v. Kutschera published in this volume.

to, superimposed the theological interpretation which became so important for Christian mysticism.

Consider the entities we today call “first-order properties”, that is, properties (monadic universals) that can only be exemplified, we today say, by individuals, that is, only by entities which, among other things they are not, are *not* properties. Properties of individuals – I will from now on usually say “properties” – are the most basic universals, and they are what the old logicians and formal ontologists by and large have in mind when they refer to accidental and substantial forms (insofar as they have in mind certain universals), species, genera etc. If, however, those old logicians and formal ontologists, even while incorporating Aristotelian distinctions, stand nevertheless firmly within the Platonic tradition, then properties have a special touch for them: not only are properties mind-independent timeless entities, but in addition they are not sharply distinguished from individuals. Thus, it would be proper to call the Platonists’ properties, including Plato’s ideal forms, “individuo-properties”. Far from being bloodless abstractions, mere concepts, individuo-properties are fully real and can somehow stand on their own. In what follows, I will speak of properties – the *same* properties, indeed, the Platonists had in mind; but it must not be forgotten that they, in addition, saw at least some of these properties in a transcendent light, and in any case considered them as being very much like, and as real as, individuals.³

Properties are in a straightforward manner parts of other properties: the content of one property is contained in the content of another. Thus, for example, the property *Not-being-married-during-1991* is in the mentioned way part, that is, *intensional part* of the property *Being-a-bachelor-during-1991*. The relation of intensional parthood organizes the universe of properties in such a manner that it forms a certain structure: a so-called *power set algebra*, which is what is technically called “a complete and atomistic Boolean algebra”. The fullblown Boolean algebra of properties is a power set algebra: it is isomorphic to the structure formed by the subsets of a certain set and the relation of set-inclusion between them. We need not concern ourselves here with the basic principles which hold true of every power set algebra; their precise formulation was certainly beyond the conceptual means of the old logicians.⁴ We need only concern ourselves with some elementary theorems which follow from these principles if they are interpreted as referring to properties and the part-relation between them (it is here always taken to be the *intensional* part-relation) – theorems that, at least implicitly, seem to have in fact been used by Platonically influenced onto-logicians. The theorems are the following statements, plus two definitions they occasion:

³ Like all historical generalizations about longstanding human activities, this assertion about Platonism is open to many qualifications, and is only approximately true. The precise nature of the qualifications could only be determined by a detailed and comprehensive study of the development of Platonistic ontology from Plato onward to the late Middle Ages.

⁴ A first-order formulation and extensive development (discussing also historical matters) of the Boolean theory of properties (which is based on intensional parthood between properties) can be found in my *Axiomatic Formal Ontology*, part II.

(I) For all properties X,Y,Z: if X is part of Y and Y is part of Z, then X is part of Z.

(II) For all properties X: X is part of X.

(III) For all properties X,Y: if X is part of Y and Y is part of X, then X is identical to Y.

(IV) For all X: if X is a property, then non-X (the negation of X) is also a property.

(V) There is a property that is part of every property.

(VI) There is precisely one property that is part of every property. ((VI) follows directly from (V) and (III).)

DEF1 MINIMALITY := *the* property that is part of all properties.

(VII) There is a property of which all properties are parts.

(VIII) There is *precisely* one property of which all properties are parts.

((VIII) follows directly from (VII) and (III).)

DEF2 MAXIMALITY := *the* property of which all properties are parts.

(IX) MAXIMALITY is (identical with) the negation of MINIMALITY.⁵

These theorems and definitions, which sound rather neutral, can now be metaphysically loaded (in a Neo-Platonic manner) by adding the following definitions:

DEF3 BEING := MINIMALITY.⁶

DEF4 THE ONE := MAXIMALITY.

DEF5.1 X is predicatively Y := X is a property and Y is a property, and Y is (intensional) part of X.

A few remarks are in order concerning *DEF5.1*. Predicative Being as defined by *DEF5.1* has some unusual characteristics – unusual to modern ontologists:

(1) The two *relata* of Predicative Being as defined by *DEF5.1* belong to the same ontological category.

But, as I said, in a Platonizing ontology, there is no distinction between individuals and properties; rather there is *one* category instead of two: the category of individuo-properties. This does not preclude that within that one category a sharp distinction is drawn, associated with a dramatic drop of ontological value, between *ideal forms* and *non-ideal beings*, a distinction which is indeed typical for Platonism and which is a precursor (but only a precursor) of the absolute ontological distinction we draw today between individuals on the one hand, and their properties on the other.

⁵ Less elementary are the following principles concerning negation, which nevertheless should also be kept in mind: (IX.1) For every property X: X is identical with the negation of the negation of X. (IX.2) For all properties X and Y: if both Y and non-Y are parts of X, then every property is a part of X.

⁶ This is not meant as a definition of *the property of being an entity* – a property which, if it existed, would apply to literally everything. It is rather doubtful indeed whether there is such a property. Rather, BEING is a first-order property which, in modern theories of Predicative Being, applies merely to all individuals. In the *historical* theory of Predicative Being considered below, it applies to all first-order properties, individuals being represented by certain first-order properties.

(2) Predicative Being as defined by *DEF5.1* is generally transitive (by *(I)*), it is reflexive in its domain (by *(II)*) (this reflexivity is one possible foundation for a consistent reconstruction of the self-predications characteristic of Platonism), and sometimes it is symmetrical (but then numerical identity of the *relata* is the consequence by *(III)*). Thus, Predicative Being as defined by *DEF5.1* has many features in common with Subsumptive Being (cf. footnote 1). This is no accident, since intensional parthood and subsumption can be regarded to be interrelated in the following manner: for all properties X and Y: X is intensional part of Y iff Y is subsumable under X.

But nevertheless the explication of Predicative Being by *DEF5.1* is *not* inadequate as long as “Predicative Being” is meant, as it is here, to stand only for *first-order Predicative Being*. For individuals can indeed be represented by *complete* properties: properties that have, with respect to every property Y, non-Y or Y as a part; thus, individuals need not be considered as forming a category of their own. But second-order properties – properties of properties of individuals – cannot also be represented by properties of individuals (by properties *simpliciter*). Accordingly, in those cases where second-order Predicative Being, and hence second-order properties, are concerned, the indiscriminate application of *DEF5.1* leads to glaringly false results: My left cheek is predicatively red – this is true; red is predicatively color – this is also true; hence by *DEF5.1* and *(I)*: my left cheek is predicatively color – but this is false. (Idiomatically: my left cheek is red; red is a color; hence my left cheek is a color.) What has gone wrong here is of course that *color* is a second-order property, and that “red is predicatively color” expresses a fact of second-order Predicative Being; and in such a case *DEF5.1* is inapplicable.

Given the definitions, the following further theorems, which sound strikingly Neo-Platonic, can be proved:

(X) THE ONE is the negation of BEING. (By *(IX)* and *DEF3, DEF4*.)

(XI) THE ONE is predicatively every property. (By *(VIII)* and *DEF2, DEF4, DEF5.1*.)

Using the Principle of Predication

For every predicate F expressing a property, and all x: F can be truly said of x iff x is predicatively the property that F expresses,

we obtain from (XI): Of THE ONE everything (that is, every predicate expressing a property) can be truly said.

(XII) THE ONE is predicatively both X and non-X, for every property X. (By (XI) and (IV).)

Hence: THE ONE is a *coincidentia oppositorum*.⁷

⁷ This designation for transcendence is well-known from the works of Nicholas of Cusa, who, however, took care not to identify God with a *coincidentia oppositorum*; see *Apologia Doctae Ignorantiae*, p. 550. The theologian Johannes Wenck thought that Nicholas of Cusa had indeed made that identification, and promptly charged him with pantheism (see *ibid.*, p. 550).

(XIII) THE ONE is predicatively every property, and THE ONE is predicatively the negation of every property. (Directly from (XII).)

The second conjunct of (XIII) does not sanction, as it might seem at first sight (and certainly must have seemed to many Platonists), that of THE ONE nothing whatever can be truly said. For (a) “THE ONE is predicatively *non-X*, for every property X” has to be carefully distinguished from (b) “THE ONE is *not* predicatively X, for every property X”. Clearly, it is the truth of the latter sentence which is needed for holding: of THE ONE, nothing whatever can be truly said. But (b) does not follow from (a), but rather contradicts it on the basis of (IV) (given that there is at least one property). Hence, if we want general *apophasis* to be true of THE ONE, something has to be modified; so far, in the given framework, (b) cannot be consistently asserted. (Note that the theory of THE ONE presented up to this point is not only consistent, but – strange as it may sound – true: it is simply a definitional extension of the theory of the Boolean algebra of properties – which is a true theory.)

I suggest that the minimal change to be made is a change in the definition of Predicative Being, by adding an extra clause:

DEF5.2 X is predicatively Y := X is a property, Y is a property, Y is part of X, and non-Y is not part of X.

According to *DEF5.2*, Predicative Being comes closer to a normal conception of it than it does according to *DEF5.1*. For now it can be proved:

(XI*) For Y and every X: X is not predicatively both Y and non-Y.

This is a law of non-contradiction with respect to Predicative Being, but it is not the *logical* Law of Non-Contradiction with respect to Predicative Being, which is rather: For every Y and every X: X is not predicatively both Y and not Y. However, the similarity of (XI*) to this latter statement makes it easy to convey onto (XI*) the status of an inviolable principle every definition of Predicative Being must respect. (XI*) has not in fact such a status, and therefore the existence of a *coincidentia oppositorum* is not the logical scandal it appears to be at first sight. Nevertheless, Predicative Being according to *DEF5.2* can be called “Normal Predicative Being”.

For Normal Predicative Being we obtain:

(XII*) THE ONE is predicatively no property.

And hence, by applying the above Principle of Predication, we have: Of THE ONE nothing – that is, no predicate expressing a property – can be truly said. Predicates that express no properties, for example “x is predicatively no property”, may of course still be truly said of THE ONE; their predicity is simply not grounded in the Predicative Being of the subject. This is also true of a predicate like “x is a unity” (which the medievals would have called “transcendental”): something’s being a unity (and everything is a unity) may have something to do with THE ONE (presumably in a causal way); but obviously it has nothing to do with THE ONE which is based on *DEF5.1* or *DEF5.2* and the Principle of Predication.

(XIII*) THE ONE is predicatively neither Y nor non-Y, for every property Y.

Hence: THE ONE is a *negatio negationis*.⁸ (XIII*) – more specifically: its immediate corollary: “THE ONE is not predicatively non-Y, for every property Y” – does not allow us to conclude general *kataphasis* from general *apophasis* about THE ONE (just as (XII) above did not allow us to conclude general *apophasis* about THE ONE from general *kataphasis*); but it must certainly have seemed to sanction this conclusion in the eyes of many Platonists, thus binding general apophasis and kataphasis about THE ONE even closer together to their minds than they logically can be. Yet, there is a consistent way of combining general apophasis and *a certain kind* of general kataphasis about THE ONE.

The respective use of DEF5.1 and DEF5.2 brings out separately, in alternative theories, two aspects of THE ONE that can also be expressed in one theory. Take the theory using DEF5.2 (this, incidentally, is the basis the Pseudo-Dionysius would have preferred; see below in the Appendix) and add to it the following definition:

DEF6 X is *super-predicatively* Y := X is a property, Y is a property, X is not predicatively Y, but Y is part of X.

Obviously: if X is super-predicatively Y, then X is predicatively Y in the sense of DEF5.1, but not predicatively Y in the sense of DEF5.2. And vice versa. Hence THE ONE is predicatively every property in the sense of DEF5.1, and predicatively no property in the sense of DEF5.2, *if and only if* THE ONE is super-predicatively every property. This is the theoretical unification DEF6 affords. We obtain in the very same theory that contains (XII*):

(XIV*) THE ONE is super-predicatively every property.

This puts a certain kind of general kataphasis about THE ONE besides general apophasis. And hence: THE ONE is super-predicatively BEING, DIVINITY, GOODNESS, etc. This, of course, is what the Pseudo-Dionysius says

⁸ This is Proclus' designation for the proper way of speaking about the One in his commentary on Plato's *Parmenides* (see D. Carabine, *The Unknown God*, p. 182, p. 186). The *negatio negationis* reappears in the writings of Meister Eckhart (*ibid.*, p. 186), who uses it as a designation for God and for the One, identifying both: “Eins ist ein Verneinen des Verneinens. ... Gott ist Eins, er ist ein Verneinen des Verneinens.” (See Meister Eckhart, *Predigten*, sermon 21, *Unus deus est pater omnium etc.*, p. 248/249, and the commentary on this, p. 933f.) Note that in the very same context Eckhart also says “in Wahrheit kann ich Gott gar nichts absprechen [in truth, I can deny nothing of God]”, for in denying something of God, he would grasp something that God is not; “eben das nun muß hinweg [and this has to be denied].” This agrees very well with the fact that (XI) and (XII*) basically describe the same (Boolean) truth of the matter about THE ONE; they are merely applying different definitions of the concept of Predicative Being in describing that truth. If we distinguish 1-Predicative-Being and 2-Predicative Being and define them as Predicative Being was defined in DEF5.1 and DEF5.2 respectively, then we can prove in the very same definitional extension of the theory of the Boolean algebra of properties: For every property X: X is 1-predicatively every property iff X is 2-predicatively no property.

about the Trinity at the very beginning of his *Mystical Theology*.⁹ (*XIV**) serves well to prevent a misunderstanding of (*XII**) as a statement of absolute privation with respect to THE ONE. Rather, THE ONE, containing all properties, is absolutely complete, while nevertheless – in the normal sense – it is indeed predicatively nothing at all. This is what (*XIV**) succinctly says. Both absolute negation and absolute completion are united in THE ONE, and although this sounds contradictory, there is in fact no contradiction. We have nothing before us but a definitional extension of the theory of the Boolean algebra of properties, which is a consistent and true theory. It is important to add that all theorems advanced above concerning THE ONE can be proved to be *not true* of every property other than THE ONE; they are true *only* with respect to THE ONE. Hence THE ONE is singularly satisfying its description, and deserves its name also in this respect (other respects relevant for that naming were simplicity and superlative value).¹⁰

This, then, is the logical backbone of Neo-Platonically inspired mysticism. Of course, this mysticism is much more than its logical backbone: it is first of all an intense religious experience. But Neo-Platonic mysticism is not contrary to logic. The statements of Pseudo-Dionysius Areopagita concerning kataphatic and apophatic theology in the famous and immeasurably influential *Mystical Theology* (for his central statement, see the Appendix) can be interpreted, in spite of their air of paradox, in a logically consistent manner, as I hope to have made apparent – while at the same time they occur in a context of singular emotional fervor. The Pseudo-Dionysius ratiocinates even as he praises. Even while invoking mystical darkness, he does so with a mind that is impeccably logical; for him, there is no conflict of attitudes in this. And it is not merely that his statements can be logically reconstructed by us, where the interpretation conveyed on these statements by the logical reconstruction must be considered to be quite foreign to what the

⁹ The appropriate theory of super-predication for a descriptive (and not merely emotive) understanding of the Dionysian superdicta is easily won on the basis of DEF6 and the Principle of Super-predication: *For every predicate F expressing a property, and all x: F can be super-truly said of x iff x is super-predicatively the property that F expresses.* Instead of “F can be super-truly said of x” we can also put, coming even closer to the Dionysian idiom, “super-F can be truly said of x”. But note that super-F does not express a property, even if F does; while F – for example, “good” – is a predicate of the object-language, super-F, properly speaking, is not; properly speaking, it – super-“good”, which is identical with “super-good” – is merely a syn-categorematic expression of the object-language, which can be used to express in the object-language a metalinguistic assertion: the object-language statement “God is super-good” represents the metalinguistic statement ‘super-“good”’ [“super-good”] can be truly said of God’, or, in other words, the metalinguistic statement ‘“good” can be super-truly said of God’. Thus the present reconstruction of super-predication fits precisely the semantic functions K. Ruh ascribes to Dionysian super-predications in *Geschichte der abendländischen Mystik*, vol. 1, p. 68f. Before quoting in the original Greek the invocation at the beginning of the *Mystical Theology*, he says: “Sie [the super-forms of ascribed adjectives] transzendieren sozusagen die nominale Aussage über das Sagbare hinaus, lassen die Apophase ins unendlich Positive umschlagen und etablieren intentional so etwas wie eine Metasprache.”

¹⁰ Note also that THE ONE is the only property that is super-predicatively *some* property. All properties other than THE ONE are not super-predicatively any property.

Pseudo-Dionysius really meant. Rather, the conceptions to which the logical reconstruction refers were available to ancient logic and formal ontology ever since the time of Plato.¹¹ And in the Neo-Platonic tradition, in which the Pseudo-Dionysius stands and which very much respected logic and formal ontology, even while seeking mystical *ekstasis*, these conceptions in fact belonged to the intellectual atmosphere; the Aristotelian influence on that tradition only served to reinforce their entrenchment. (It is another question whether the Neo-Platonic conceptualization of mysticism is true to the essence of that phenomenon, or rather a distortion of it. I will not pronounce on this.)¹²

In concluding, I will consider three objections which may be raised against the historical adequacy of my interpretation.

(1) Can the Pseudo-Dionysius really mean to identify God – even though he is indeed merging him with THE ONE – with MAXIMALITY: the property of which all properties are parts? God or THE ONE is surely not a property!

I am not saying that the Pseudo-Dionysius is consciously making this identification, or that anybody in the Platonistic tradition ever consciously identified THE ONE with MAXIMALITY; I am only saying that this is in the back of his mind: that it is a deposit of the Platonistic tradition, a deposit which is rich enough to exert its influence and to make itself visible. But apart from this, it has to be kept in mind that properties for the Platonist – Christian or not – are not merely properties (qua universals) in the sense we conceive of them (or Aristotle did), but *individuo-properties*¹³, as I have pointed out above: MAXIMALITY is in Platonistic eyes as much an individual as it is a property (hence it is also able to exert the universal causal efficiency which makes it possible to call it “the cause of all beings”). Moreover, some properties are seen by Platonists in a transcendent light (as ideal forms) – a transcendent light which is focussed on MAXIMALITY in virtue of the special position it occupies among the other properties.

(2) But is not THE ONE supposed to be something utterly simple, which MAXIMALITY is not?

Being a property, MAXIMALITY is of course simple in the sense of having no spatial parts. But having no spatial parts is something which MAXIMALITY still has in common with other properties (and if parts are *proper* parts even with spatial points). More importantly, MAXIMALITY is simple in the sense of being predicatively (in the sense of mereologically defined Normal Predicative Being: see DEF5.2) nothing at all; it is utterly simple in the sense of having no “predicative” parts (or in other words, in the sense that

¹¹ This, to my mind, has been conclusively shown by F. von Kutschera in his book on Plato’s *Parmenides*.

¹² But consider what D. Carabine has to say about the matter in *The Unknown God*, p. 323: “negative theology is not simply a theory of negative language. It can, of course, remain at the intellectual level, even up to the point of the *negatio negationis*, but it can also be a springboard into the search for unity with the transcendent.”

¹³ Borrowing a term from aesthetics, one might also call them, with a similar paradoxical connotation, “concrete universals”.

no property is a *consistent* intensional part of it, not a proper and not an *improper* one: THE ONE is not a *consistent* intensional part of itself, since its negation is also a part of it). I claim that essentially this is meant when THE ONE is called “completely simple”. Hence there is so far no obstacle to identifying THE ONE with MAXIMALITY. On the contrary, there is some positive evidence which points us towards that identification; Plotinus and, following him, other Neo-Platonists say that the One is the *source or cause of all beings*. If the One is a property at all (in view of what was said in (1), this is far from absurd), then MAXIMALITY is surely the best candidate for being called “the source/cause of all beings”.¹⁴ (See also the remarks and quotations in the Appendix concerning Plotinus on the One’s simplicity.)

(3) Yet according to Plotinus THE ONE is *beyond* the realm of ideal forms, in other words, beyond the realm of properties; and hence it is not a property for him, whereas here THE ONE, being identified with MAXIMALITY, turns out to be a property.

It is a property, indeed, but a very special one, and it need not be counted among the ideal forms or properties in Plotinus’ sense. While the properties which are different from THE ONE are precisely those properties that are predicatively BEING (hence, presupposing DEF5.2 and DEF6, *not* super-predicatively BEING), THE ONE is the only property that is super-predicatively BEING (hence *not* predicatively BEING). This fits precisely what Plotinus says: the manifold of ideal forms (in his sense) is the realm (extension) of BEING, but THE ONE (and THE ONE alone) is above this realm. (See also the remarks and quotations in the Appendix concerning Plotinus on the One beyond Being.)

Appendix Further Remarks and Relevant Quotations

1. Predicative Being as a part-relation:

Parmenides, 142c,d (Greek text: edition of the Société d’Édition; translation by the present author): “Once more then let us say, if one is, what will follow. Consider therefore whether not this hypothesis necessarily implies that the one is such as to have parts. – How so? – In this way: if *the being* of the one *that is* asserted, and *the one* of the being *that is one*, – but being and the

¹⁴ Note that the Pseudo-Dionysius says that everything must be affirmed of the One/God, *since it is the cause of everything* (see the Appendix). This quite explicitly points us towards THE ONE being MAXIMALITY if the definition of Predicative Being used by the Pseudo-Dionysius in this assertion is taken to be DEF5.1; given that definition, MAXIMALITY is the only entity which is predicatively every property. In the same passage (cited in the Appendix) the Pseudo-Dionysius also holds that (from a different point of view) everything must be denied of THE ONE, since it super-is everything; if Predicative Being is defined in the sense of DEF5.2, and Super-predicative Being in the sense of DEF6; then MAXIMALITY is the only entity which is predicatively no property, and super-predicatively every property. It all fits together very well, suggesting rather strongly that the THE ONE is indeed identical with MAXIMALITY. For further arguments see 3. in the Appendix.

one are not the same, but only *of* the same: of the one that is *–*, must then not the whole be one being, and the one and the being become parts of it?"

The Development of Logic, p.62: "It seems clear that the following four forms are regarded as equivalent [in the *Prior Analytics*]: (1) A is predicated of B. (2) A belongs to B. (3) B is A. (4) B is in A as in a whole."

Comment: These forms and their equivalence have not been invented by Aristotle "out of thin air", but most probably were at least foreshadowed in discussions in Plato's Academy. And the Neo-Platonic mereological conception of Predicative Being must certainly have been confirmed by this Aristotelian authorization of it, if the latter is not an independent source of it. The form (2) is the translation of *hyparchei*, of which Bocheński remarks in *Formale Logik*, p.52: "*hyparchei* wurde durch 'kommt zu' ['belongs to'] übersetzt. Dies ist sehr ungenau, denn das griechische Wort bedeutet im aristotelischen Sprachgebrauch eigentlich 'ist in' (lateinisch *inest*)."¹ Hence it is clear that (2) may also be expressed by "A is in B" or "A is part of B". (2) and (4) are not at odds with one another, since, if A is an *intensional* part of B (this is what (2) says), B is an *extensional* part of A (this is what (4) says), and vice versa.

2. The Pseudo-Dionysius on assertion and denial with respect to The One/God in *The Mystical Theology* (Greek text: Migne-edition, 1000,B; translation by the present author): "it is necessary to posit and ascribe to it all that is affirmed of beings, since it is the cause of everything, and at the same time, which is more valid, to deny of it all that is affirmed of beings, since it super-is everything, and not to esteem the denials to be contrary to the affirmations, but much rather that it, which is above all denial and all affirmation, is above the privations." The phrase "which is more valid" in connection with general denial suggests that Predicative Being in the sense of DEF5.2 (and not in the sense of DEF5.1) is the preferred *general* concept of Predicative Being for the Pseudo-Dionysius. But still more adequate for him in speaking of the One, as is clear from the cited passage, is Super-predicative Being (which is, however, useless as a general concept of Predicative Being because it is only applicable to the One): Super-predicative Being, being the basis of super-predication, allows a consistent linking of denial and affirmation, transcending both. It is no accident that this reminds one of Hegelian dialectic.

3. Plotinus on the One beyond Being in section 3 of *Ennead VI,9* (translation by Stephen MacKenna): "The Unity [*hen*], then, is not Intellectual-Principle [*nous*] but something higher still: Intellectual-Principle is still a being but that First is no being but precedent to all Being: it cannot be a being, for being has what we may call the shape of its reality but The Unity is without shape, even shape Intellectual." In our reconstruction, Plotinus offers the following correct argument (with true premises): (1) THE ONE is predicatively (in the sense of DEF5.2) no property. (2) If X is predicatively BEING, then X is predicatively some property. Therefore: THE ONE is not predicatively BEING, and hence it is not identical with anything that is predicatively BEING (in particular, not identical with BEING itself).

And Plotinus continues: “Generative of all, The Unity is none of all; neither thing nor quantity nor quality nor intellect nor soul; not in motion, not at rest, not in place, not in time: it is the self-defined, unique in form or, better, formless, existing before Form was, or Movement or Rest, all of which are attachments of Being and make Being the manifold it is. But how, if not in the movement, can it be otherwise than at rest? The answer is that movement and rest are states pertaining to Being, which necessarily has one or the other or both. Besides, anything at rest must be so in virtue of Rest as something distinct: Unity at rest becomes the ground of an attribute and at once ceases to be a simplex.” Let “R” stand for the property of resting, and “non-R” for the property of moving, then we can *critically* reconstruct the assertions and arguments of Plotinus in the following manner (continuing the above numbering): (3) R is predicatively BEING, and non-R is predicatively BEING. (Both R and non-R are “states pertaining to Being”, “attachments of Being”: both belong to the extension of Being; but the assertion “BEING is predicatively R or non-R or R and non-R” is false.) (4) For all X: if X is predicatively BEING, then THE ONE is not predicatively X. *Hence* by (3) and (4): THE ONE is predicatively neither R nor non-R. (5) If THE ONE is predicatively R, then THE ONE is predicatively R *qua* different from THE ONE. (The general assertion “For all X: if X is predicatively R, then X is predicatively R *qua* different from X” is falsified by one and only one counter-instance: R itself. R is predicatively R, but R is not predicatively R *qua* different from R.) (6) THE ONE is predicatively no property *qua* different from THE ONE. *Hence* by (5) and (6): THE ONE is predicatively not R. The same argument can also be applied to non-R.

The last sentence of the above quotation touches the *predicative simplicity* of the One, the simplicity Plotinus primarily intends when he is speaking of the One’s simplicity. And that simplicity of the One has nothing to do with extension or numerical quantity: consider the following passages in sections 5 and 6 of *Ennead VI,9*: “This we can but name The Unity, indicating it to each other by a designation that points to the concept of its partlessness while we are in reality striving to bring our own minds to unity. We are not to think of such unity and partlessness as belong to point or monad; the veritable unity is the source of all such quantity which could not exist unless first there existed Being and Being’s Prior ... Its oneness must not belittled to that of monad and point ... Unity was never in any other and never belonged to the partible: nor is its imparibility that of extreme minuteness; on the contrary it is great beyond anything, great not in extension but in power ...” Clearly, the partlessness of the One does not make a nullity of it; on the contrary, the One generates all other things, as was said above. Consider also Plotinus’ remarkable statement “Unity was never in any other” and that we can prove in the theory of the Boolean algebra of properties: There is precisely one property Y such that Y is not part of any property different from Y. That property, as can easily be verified, is MAXIMALITY. It seems that the best solution to the central Plotinian problem, how the Many can come from the utterly simple One, is obtained by assuming that the One is simple in the

sense of being predicatively no property, *and* by assuming that the One is nevertheless MAXIMALITY. Both these assumptions are not only compatible but even equivalent, given *DEF2* and *DEF5.2* and a Boolean framework, because one can prove on that basis the following theorem: For all properties X: X is predicatively no property iff X=MAXIMALITY.

4. An alternative approach to harmonizing *negatio negationis* and *coincidencia oppositorum*:

In the body of the paper the definition of THE ONE was kept constant while the definition of Predicative Being varied. Alternatively one may keep the definition of Predicative Being constant while varying the definition of THE ONE. Take the following definition of Predicative Being: X is predicatively Y := X and Y are properties, Y is part of X, and X is not (identical with) BEING. Then, if one defines THE ONE as MAXIMALITY, one obtains: THE ONE is predicatively every property. (Note that in the Boolean algebra of properties MAXIMALITY (as defined by *DEF2*) and BEING (as defined by *DEF1*, *DEF3*) are different, given that there is more than one property.) But if one defines THE ONE as BEING/MINIMALITY, one obtains: THE ONE is predicatively no property.

The described approach has the disadvantage that it appears to be rather *ad hoc*. The Neo-Platonists certainly intended to refer by the designation “the One” to one and the same entity, and this seems also to be true of Plato in his dialogue *Parmenides*.

5. A short diagnosis of *Parmenides*, 137c-155e:

The first discussion of the assumption “the One is” (this discussion is usually called “the First Hypothesis”) in Plato’s *Parmenides* establishes:

(A) If THE ONE is predicatively BEING, then THE ONE is predicatively no property. (“if,then” is simply taken to be material implication.)

The second discussion of the assumption “the One is” (that discussion is usually called the “the Second Hypothesis”) establishes:

(B) If THE ONE is predicatively BEING, then THE ONE is predicatively every property.

Call the consequent of (A) – THE ONE is predicatively no property – “(A2)”, the consequent of (B) – THE ONE is predicatively every property – “(B2)”. The First Hypothesis is based on *DEF5.2*; hence one can prove (A2), and hence trivially (A). (“THE ONE is not predicatively BEING” and “THE ONE is not predicatively (THE) ONE” – statements which are concluded in 141e – are obvious logical consequences of (A1) and of “BEING and THE ONE are properties”).

The Second Hypothesis, however, is based on *DEF5.1*; hence one can prove (B2), and hence trivially (B).¹⁵ Whether *DEF5.1* is used or *DEF5.2*,

¹⁵ Both for showing (A) and for showing (B) the assumption “THE ONE is predicatively BEING” (“The One is”) is in fact otiose. This is not inadequate for an interpretation of the *Parmenides*, since that assumption is hardly used in the First and Second Hypothesis.

Predicative Being is in both cases based on the *intensional parthood* of properties (or equivalently, *with inverted order of terms*, on their extensional parthood), and this is certainly not contrary to Plato's intentions: In the above quotation under 1., that the whole *is* and *is one* implies that the properties BEING and ONE are parts of it, and this clearly points us towards Predicative Being which is based on intensional parthood (in fact, based on it in the simplest possible manner: that given by *DEF5.1*). Indeed, the cited passage can be taken to imply a general definition of Predicative Being in virtue of the prominent position it occupies: it occurs at the very beginning of the Second Hypothesis (at the beginning of a new discussion meanings are clarified, terms defined). Unfortunately Plato is not unequivocal in the *Parmenides* with respect to his mereological conception of Predicative Being; compare the discussion of the problem in the paper (included in this volume) by F. v. Kutschera, who favors a quite different solution than the one that is here advocated.

Is there any direct evidence that Plato used *DEF5.2* in the First Hypothesis? There is not. But there is direct evidence for *DEF5.1* (142d), as we have seen, and for all properties in subject-position which are different from MAXIMALITY, the two definitions can be shown to be equivalent. What the present interpretation of the First and Second Hypothesis of the *Parmenides* requires is the following: that Plato recognized the Boolean structure of the universe of properties, that he recognized that that universe has a maximal element (MAXIMALITY: THE ONE), that intensional parthood (Y is part of X) and *consistent* intensional parthood (Y is part of X, but non-Y is not part of X) are co-extensional for every property X that is not MAXIMALITY, but that of the latter *every property* is an intensional part, and *no property* a *consistent* intensional part. Finally the present interpretation requires that Plato was inspired by this fact to use (without giving explicit notice: this as an intellectual challenge to his readers) two alternative mereological definitions of Predicative Being, first *DEF5.2* and then *DEF5.1*, yielding in the first case that THE ONE has (is predicatively) no property, and in the second that THE ONE has every property.

Consider also the challenge which lies in making a true statement out of "THE ONE is not predicatively THE ONE" – something which is asserted in the First Hypothesis (141e) – on the basis of a mereological conception of Predicative Being, while retaining Platonic self-predication – X is predicatively X – for every property that is different from THE ONE. This seems difficult on any mereological conception of Predicative Being (if we refrain from ad-hoc-constructions). But the problem can be very satisfactorily solved if we proceed on the basis of *DEF5.2*. In the dialogue itself "The one is not one" is concluded from the "The one is not" (141e). Both the premise of this argument – THE ONE is not predicatively BEING – and the general principle used – if X is not predicatively BEING, then X is not predicatively Y (which is mentioned explicitly at the beginning of 142a) – can be deduced given *DEF5.2*. Here the deduction of the general principle: Assume that X is not predicatively BEING. In case X or Y is not a property, then – according

to *DEF5.2* – X is not predicatively Y. In case X and Y are both properties, then – according to *DEF5.2* – from the assumption: BEING is not a (intensional) part of X, or NON-BEING is a part of X. But BEING is a part of X, since it is a part of every property (*DEF3*, *DEF1*, (*VI*)). Hence NON-BEING is also a part of X, and hence every property must be a part of X; for this is a theorem even of elementary theories of Boolean algebra: if F and non-F is a part of X, then every G (in the considered Boolean universe) is a part of X. Hence both Y and non-Y is a part of X (applying (*IV*)), and hence X is not predicatively Y (according to *DEF5.2*). (Note that the proof of the converse of the general principle is comparatively trivial: Assume there is no Y such that X is predicatively Y. Hence X is not predicatively BEING.)

References

- Bocheński, J.M.: *Formale Logik*, Alber, Freiburg/München 1962.
- Carabine, D.: *The Unknown God. Negative Theology in the Platonic Tradition: Plato to Eriugena*, Peeters Press, Louvain 1995.
- Kneale, W. and M.: *The Development of Logic*, Clarendon Press: Oxford 1988.
- Kutschera, F. von: *Platons "Parmenides"*, De Gruyter, Berlin/New York 1995.
- Meister Eckhart: *Predigten*, vol. 1 of *Werke*, edited and commented by Niklaus Langer, Deutscher Klassiker Verlag, Frankfurt a. M. 1993.
- Meixner, U.: *Axiomatic Formal Ontology*, Kluwer, Dordrecht 1997.
- Nicholas of Cusa: *Philosophisch-theologische Schriften*, vol. 1, edited by Leo Gabriel, Herder, Wien 1964.
- Plato: *Œuvres complètes*, Tome VIII, 1^{er} Partie: *Parménide*, texte établi et traduit par Auguste Diès, Société d'Édition "Les Belles Lettres", Paris 1974.
- Plotinus: *The Enneads*, translated by Stephen MacKenna, abridged by John Dillon, Penguin Books, Harmondsworth 1991.
- Pseudo-Dionysius Areopagita: *S. Dionysii Areopagitae opera omnia quae exstant*, edited by Balthasar Corderius, Migne, Paris 1889.
- Ruh, K.: *Geschichte der abendländischen Mystik*, vol. 1, Beck, München 1990.