Relations and Relatives in Boethius's Commentary on the *Categories* : the Invention of Monadic Two-place Predicates*

That of *ad aliquid* is the most problematic category among the ten listed by Aristotle in the homonymous treatise. In Late Antiquity and the Middle Ages many authors attempted to develop new formulations of the Aristotelian theory of relatives, since Aristotle's account of ad aliquid (pros ti in Greek) in the Categories is imprecise and incomplete for at least four reasons¹: (1) Aristotle does not have any notion of relation, since he only speaks of relatives which he conceives as those entities which the non-absolute terms of our language refer to. Albeit, in the *Metaphysics*, at the end of the chapter on relatives (ch. 15) in Book Δ (1021b6-8), Aristotle seems to be able to distinguish between relations and relatives, as he speaks of both the property in virtue of which a thing is called relative and that thing itself considered as the substrate of inherence of such a property. (2) He does not discuss the question of the ontological status of relatives. (3) He proposes two different definitions of relatives and does not sufficiently clarify the connection between them (*Categories*, 7, 6a36-37 — Ackrill's translation, p. 17): « We call relatives all such things as are said to be just what they are, of or than other things, or in some other way in relation to something else »; and (8a31-35 — Ackrill's translation, pp. 22-23): « If those things are relatives for which being is the same as being somehow related to something, then perhaps some answer can be found. The previous definition does, indeed, apply to all relatives, yet this — their being called what they are, of other things — is not what their being relatives is ». (4) He does not give any effective criterion for distinguishing relatives from some items falling into other categories.

From a purely theoretic point of view, in Late Antiquity the most successful attempt to improve the Aristotelian doctrine was that of the Greek Neoplatonic commentators, such as Porphyry, Iamblichus, Ammonius, Philoponus, Olympiodorus, and Simplicius. They were able to elaborate a notion of relation

^{*} This article is a revised and expanded version of the paper I read at the XXth European Symposion of Logic and Semantics in the Middle Ages, which took place in Cambridge in June 2014.

¹ See J. L. ACKRILL, *Aristotle's Categories and De interpretatione*, translated with notes and glossary by J. L. Ackrill, Clarendon Press, Oxford 1963, pp. 98-103.

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(*schesis*) almost equivalent to a hypostatization of our modern notion of two-place predicates, as they conceived of relations as abstract forms whose distinctive feature was the property of being present-in and joining two different substances at once. Furthermore, some of them (Ammonius, Philoponus, and Olympiodorus) used the inherence of the *schesis* in two individual substances at once for distinguishing 'true relatives' (so to say), namely those which satisfy both the Aristotelian definitions, from the relatives 'broadly speaking', namely those which meet the requirements of the first definition only².

Simplicius's commentary was the largest and most important among the Neoplatonic commentaries on the *Categories*. It was translated into Latin by William of Moerbeke in 1266, and was very well known and cited by Medieval authors in between the end of the thirteenth and the beginning of the fourteenth centuries. Yet, for the history of Medieval philosophy, far and away the most influential attempt to clarify Aristotle's text was that of Boethius, who, faithful to Aristotelian teaching, maintained that relation was an accident (we could say 'a property') which was-in a substance (its substrate of inherence) and simply entailed a reference to another, without inhering in it. Thus, unlike Greek Neoplatonic commentators of che *Categories* (and modern logicians as well), Boethius did not think of a relation as a two-place predicate, but he seems rather to consider it as a sort of *monadic two-place predicate*, or function.

The difference between Boethius's conception and ours is that according to him each relation has only a place empty for individual variables and the other filled by an individual constant. For instance, where we see a relation of similarity holding between two people, say Walter and William, for they are white, Boethius sees two distinct relations of similarity, one inhering in Walter and relating him to William, namely the relation of being-similar-to-William, and the other

² Cf. PORPHYRY, *Isagoge et in Categorias commentarium*, ed. A. BUSSE, G. Reimer, Berlin 1887 (CAG 4.1), p. 124, 15-18 and 21-24; AMMONIUS HERMIAE, *In Aristotelis Categorias commentarius*, ed. A. BUSSE, G. Reimer, Berlin 1895 (CAG 4.4), p. 66, 15-16; PHILOPONUS, *In Aristotelis Categorias commentarium*, ed. A. BUSSE, G. Reimer, Berlin 1898 (CAG 13.1), p. 102, 31-32; OLYMPIODORUS, *Prolegomena et in Categorias commentarium*, ed. A. BUSSE, G. Reimer, Berlin 1898 (CAG 13.1), p. 102, 31-32; OLYMPIODORUS, *Prolegomena et in Categorias commentarium*, ed. A. BUSSE, G. Reimer, Berlin 1902 (CAG 12.1), p. 97, 30-31; SIMPLICIUS, *In Aristotelis Categorias commentarium*, ed. C. KALBFLEISCH, G. Reimer, Berlin 1907 (CAG 8), p. 161, 6-8, and p. 160, 11-34 for Iamblichus — see A. D. CONTI, *La teoria della relazione nei commentatori neoplatonici delle* Categoried *i Aristotele*, «Rivista Critica di Storia della Filosofia », 38, 1983, pp. 259-283. For different evaluations of their doctrine see F. CAUJOLLE-ZASLAWSKY, *Les relatifs dans les* Catégories, in P. AUBENOUE ed., *Concepts et catégories dans la pensée antique*, Vrin, Paris 1980, pp. 167-194; C. LUNA, *La relation chez Simplicius*, in I. HADOT ed., *Simplicius. Sa vie, son œuvre, sa survie*, De Gruyter, Berlin - New York 1987, pp. 113-147; O. HARARI, *Simplicius on the Reality of Relations and Relational Change*, «Oxford Studies in Ancient Philosophy », 37, 2009, pp. 245-274; C. ERISMANN, *Olympiodorus on the Reality of Relations and the Order of the World*, «Quaestio », 13, 2013, pp. 103-124; C. ELSBY, *Plotinus on the Reality of the Category of Relation*, «Quaestiones Disputatea », 4/2, 2014, pp. 42-57.

inhering in William and relating him to Walter, namely the relation of beingsimilar-to-Walter. This view is mainly due to Boethius's interpretation of the so called 'knowing definitley' clause (*Categories*, 7, 8a35-37 — a consequence that in Aristotle's opinion necessarily follows from the second definition of relatives).

In this paper I would like to take a step toward clarifying the legacy Boethius left to the Medieval thinkers in relation to the theory of *ad aliquid*, namely the logical and terminological apparatus drawn up in order to solve the chief problems raised by the seventh chapter of the *Categories*, with the general interpretative context in which the apparatus itself was set. Since Boethius's commentary on the *Categories* is a bridge between Pophyry's interpretation of the treatise (and, more generally, Neoplatonic interpretations) and the Medieval tradition, for a better understanding and evaluation of Boethius's theory, it could be useful to start with a very short analysis of Porphyry's understanding of the book. The second section will be dedicated to Boethius's theory of *ad aliquid*. In the final section, I shall draw some conclusions about the general significance of Boethius's ideas on relations, and the internal consistence of his doctrine of the categories.

1. As is well known³, Porphyry attached great importance to the *Categories*, since he thought that the treatise was an introduction to the whole of philosophy, and especially to the physical part of it. Following A. C. Lloyd⁴, some scholars have maintained that the main goal of his exposition of the *Categories* was to show the possibility of a reconciliation and integration between the philosophies of Plato and Aristotle. In order to achieve this task, Porphyry would assume : (1) a sharp division in spheres and procedures between logic and metaphysics, the former having as its concern demonstration and language, the latter beings as they are in the real order. And (2) a difference of fields of interest between Plato and Aristotle, the former being interested in metaphysics and theology, the latter in logic and natural philosophy. The consequence of this for the interpretation of the *Categories* was that the *skopòs (intentio* in Latin) of the book was identified as dealing with non-compounded utterances in their capacity for being significant⁵.

³ Cf. R. CHIARADONNA, Porphyry and the Aristotelian Tradition, in A. FALCON ed., Brill's Companion to the Reception of Aristotle in Antiquity, Brill, Leiden - Boston 2016, pp. 321-340, at pp. 322 and 325-326.

⁴ Cf. A. C. LLOYD, *Neo-Platonic Logic and Aristotelian Logic*, « Phronesis », 1, 1955-56, pp. 58-72, 144-160.

⁵ Cf. S. EBBESEN, *Porphyry's Legacy to Logic: a Reconstruction*, in R. SORABJI ed., *Aristotle Transformed: the Ancient Commentators and their Influence*, Cornell University Press, Ythaca, N.Y. 1990, pp. 141-171; J. BARNES, *Porphyry: Introduction*, Oxford University Press, Oxford 2003.

More recently, other scholars⁶ have argued that the traditional interpetation is not totally persuasive, as ontology is not absent from Porphyry's logical works, even if it is simplified and limited to the perceptible beings. As a matter of fact, Porphyry's commentaries on the Categories contain few references to Platonic philosophers and, what is more, only critical⁷. Not only did Porphyry read some Aristotelian theories in such a way that they became compatible with those of Plato, he also tried to integrate Plato's views and Aristotle's views into a broader philosophical framewok. Ontology is not investigated in purely Platonic terms, and Aristotle's philosophy is present in the whole of Porphyry work⁸. In the general evaluation of the subject matter of the tract Porphyry follows the earlier Peripatetic tradition; he speaks of the *Categories* as a semantic work that investigates those general terms which signify things⁹. « Hence, for Porphyry, the division of categories reflects the basic ontic distinction of (sensible) things »¹⁰, which are the primary objects of our language. In this way it was possible to reconcile with the Platonic position some Aristotelian statements that, in fact, have the opposite sense. This is the case with the primacy of the individual (or primary) substance in relation to the universal (or secondary) one. According to Porphyry¹¹, in the Categories individual substances are called 'primary' and universal substances 'secondary' because from a semantic point of view, what is individual is first, as it is the first to fall under our knowledge and to receive a name; but naturally and by itself what is universal is prior to individuals in virtue of its more stable and higher mode of being, since universals and individuals do not reciprocate as to implication of existence.

Other capital points of Porphyry's explanation are the following: (1) the theory of the categories is the foundation of logic, as the non-compounded utterances with which the treatise deals are the basic constituents of demonstration. (2) The table of categories has also an ontological value, because the same ten basic kinds of reality can be distinguished in the (material) world. (3) The ten highest genera are the first principles of reality. (4) All the categories have a similar internal structure based on genera, differences, and species. (5) The division into categories

⁶ Cf. CHIARADONNA, Porphyry and the Aristotelian Tradition cit. See also G. KARAMANOLIS, Porphyry: the First Platonist Commentator on Aristotle, in P. ADAMSON ET AL. eds., Philosophy, Science, and Exegesis in Greek, Arabic, and Latin Commentaries, Institute of Classical Studies, London 2004, vol. I, pp. 97-120; and M. GRIFFIN, What does Aristotle Categorize ? Semantics and Early Peripatetic Reading of the Categoreis, « Bulletin of the Institute of Classical Studies », 55, 2012, pp. 69-108.

¹⁰ CHIARADONNA, Porphyry and the Aristotelian Tradition cit., p. 327.

⁷ Cf. CHIARADONNA, Porphyry and the Aristotelian Tradition cit., p. 324.

⁸ Cf. *ibid.*, pp. 324-325.

⁹ Cf. PORPHYRY, In Categorias commentarium, pp. 55, 16 - 56, 13.

¹¹ Cf. PORPHYRY, In Categorias commentarium, pp. 90, 12 - 91, 27.

can be somehow reduced to the division into substance and accident. (6) There are at least three types of universals, separate universals, material universals, and mental universals. (7) The relationships between genera and species, universals and individuals are dynamic and not static, since that which is more universal produces that which is less. (8) The constitutive principle of the category of *pros ti* is the *schesis* (relation), an accidental form that inheres-in and joins two distinct entities making them relatives and mutualiy dependent in virtue of some aspect of their being. (9) The four species of quality are related to their genus as to a focus, and descend from it according to different modalities.

2. Porphyry's (and, more generally, Neoplatonic) interpretation of the *Categories* was transmitted, not without some simplification and changes, to the thinkers of the Middle Ages through the mediation of Boethius's commentary and influenced them in more than one respect¹². Nevertheless, there are some very important points of disagreement between the Neoplatonists and the Medievals in their reading of the work, especially with regard to subject (*subjectum*) of the book and the theory of the *ad aliquid*¹³. In fact, for the most part Medieval authors of the thirteenth and fourteenth centuries held that the *Categories* deals with the *ens* incomplexum ordinabile in genere and not with voces precisely as they are significant; and that relatives (ad aliquid) are the aggregates formed by a substance and a relation (viewed as a monadic property). Depending on the general assessment of the ontological value of the categorial table, whether it primarily sorts world things or linguistic signs, it is customary to classify Late Medieval authors as being Realists or Nominalists. Nominalists (such as Peter of John Olivi, Ockham, Buridan, Marsilius of Inghen, and Albert of Saxony) maintained that in the world there are two (substance and quality), or three (substance, quantity, and quality), supreme genera of beings only, but we signify the items falling into those two (or three) real categories by means of ten semantically different kinds of terms. On the contrary, Realists (such as Robert Kilwardby, Albert the Great, Thomas Aquinas, Simon of Faversham, Henry of Ghent, Thomas Sutton, John Duns Scotus, Peter Auriol, Walter Burley, Franciscus de Prato, Jacobus de Placentia, John Wyclif, Robert Alyngton, Paul of Venice) held that the ten Aristotelian categories are the supreme genera of beings, irreducible to one another — even though there

¹² On Boethius's Aristotelian commentaries and their influence over Medieval authors's approach to Aristotle see S. EBBESEN, *The Aristotelian Commentator*, in J. MARENBON ed., *The Cambridge Companion to Boethius*, Cambridge University Press, Cambridge 2009, pp. 34-55.

¹³ For a comprehensive study on Medieval theories of relatives and relation see M. HENNINGER, *Relations. Medieval Theories 1250-1325*, Clarendon Press, Oxford 1989.

were some significant differences among them in establishing the nature and ontological status of those ten categories¹⁴.

Moreover, many Medieval thinkers assumed that the relationship between relation and relatives was similar to the ones between quantity and what is quantified (*quantum*), and quality and what is qualified (*quale*). On the other hand, those (such as Ockham, Buridan, and Marsilius of Inghen) who developed a consistently *linguistic* intepretation of the *Categories* transformed Aristotle's statements on the ontological and physical status of primary substances, substantial and accidental forms and species, and so on, into rules for the correct use of terms. In this way, the level of language in the *Categories* was raised a step in relation to the actual level of the treatise. Furthermore, as is well known, Medievals did not think of a relation (*relatio*) as a two-place predicate. They rather considered it as a sort of monadic function, since they maintained that, like the other accidental forms, relation inheres in a single individual substance only, albeit it entails a reference to another one, but without inhering in it¹⁵. Moreover, even those authors (such as Robert Kilwardby) who did not openly speak of a *fundamentum relationis*, nor

¹⁴ Some of them, such as Robert Kilwardby, Henry of Ghent, Simon of Faversham, Walter Burley until 1324, and Franciscus de Prato judged only the items falling into the three absolute categories to be things (res), and considered the remaining ones real aspects (respectus reales) proper to the former — while Peter Auriol thought that besides the absolute categories, action, and passion too are distinct things in the world. Some, such as Duns Scotus, Burley after 1324, Jacobus de Placentia, Wyclif, Alyngton, and Paul of Venice, claimed that all the ten Aristotelian categories are distinct kinds of things. Some of them, such as Albert the Great, Simon of Faversham, Burley, and Alyngton, thought that the ten categories are characterized by their own modes of being (modi essendi); some, such as Thomas Aquinas, believed that their constitutive and distinctive principles are their own modes of being-predicated (*modi praedicandi*); and some, such as Duns Scotus and Paul of Venice, affirmed that the ten real categories differ from each other in virtue of their own essences. Finally, and quite paradoxically, some authors, such as Robert Kilwardby, Thomas Sutton, and Peter Auriol, supported the theses that (1) the treatise of the *Categories* primarily deals with linguistic terms (or voces) considered qua able to signify things, and not with the signified things themselves, but that (2) all the ten categories have an extramental foundation. On this subject see A. D. CONTI, Categories and Universals in the Later Middle Ages, in L. NEWTON ed., Medieval Commentaries on Aristotle's Categories, Brill, Leiden-Boston 2008, pp. 369-409, and In., Ockham and Burley on Categories and Universals : a Comparison, « The Modern Schoolman », 86/1-2, 2008/09, pp. 181-210 ; F. AMERINI, Fourteenth-Century Debates about the Nature of the Categories, in S. EBBESEN, J. MARENBON, P. THOM eds., Aristotle's Categories in the Byzantine, Arabic and Latin Traditions, The Royal Danish Academy of Sciences and Letters, Copenhagen 2013, pp. 217-243. For a specific treatment of the debate between Late Medieval Nominalists and Realists upon relatives, see A. D. CONTI, Realism vs Nominalism : the Controversy between Burley and Ockham over the Nature and Ontological Status of the ad aliquid, « Quaestio », 13, 2013, pp. 35-55.

¹⁵ Cf. J. BROWER, *Medieval Theories of Relations*, in E. N. ZALTA ed., *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), URL = http://plato.stanford.edu/archives/spr2014/entries/relations-Medieval/.

discussed the problem of the distinction between the *fundamentum relationis* and the reality of relations, admitted that relations cannot directly inhere in primary substances, as they are grounded at least on absolute accidents (namely, quantity and quality)¹⁶. In the most common Medieval view, the foundation (fundamentum) of the relation (namely, the entity in virtue of which the relation inheres in its substrate and makes reference to another substance) is the main element in the act of referring of a substance to another, since it joins the relation to the underlying substances, transmits some of its properties to the relation, and permits the relation to link the antecedent of the relation to the consequent. For instance, the foundation of the relation of similarity which connects Socrates with Plato is the form of whiteness which inheres in Socrates; the antecedent of that relation (terminus a quo, extremum, subjectum, according to the different terminologies of Burley, Wyclif, and Alyngton respectively) is the aggregate consisting of the substance which denominatively receives the names of the relation (Socrates) and the foundation of the relation; the consequent (terminus a quo, extremum, *objectum*, according to the different terminologies of Burley, Wyclif, Alyngton) is another compound, made up of the union of the second substance with its own foundation (in our example, the aggregate formed by Plato and his own form of whiteness). Although the relation depends for its existence not only on the substrate, but also on the foundation, its being is somehow distinct from them, given that when the substrate or the foundation fails the relation also fails, but not vice versa. Finally, for the most part Medieval philosophers attributed to Plato the first (improper) definition of ad aliquid set in the seventh chapter of the *Categories*, and to Aristotle the second (appropriate) definition.

With the remarkable exception of the notion of the *fundamentum relationis* (absent in Boethius), these changes are principally due to Boethius's own interpretation. Like the most important Greek commentators, he supports a nominalist evaluation of the book¹⁷ when he discusses the *intentio* of the treatise, but he also develops a realist reading when he comments many crucial passages of the tract. Fundamental to his doctrine of the categories seems to be a form of isomorphism among language, thought, and the world. Boethius seems to be convinced that (1) our thought is directly modelled on reality itself, so that it is able to reproduce reality in its elements, levels, and relations; and (2) by means

¹⁶ See A. D. CONTI, Semantics and Ontology in Robert Kilwardby's Commentaries on the Logica Vetus, in H. LAGERLUND, P. THOM eds., A Companion to the Philosophy of Robert Kilwardby, Brill, Leiden-Boston 2012, pp. 93-95.

¹⁷ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, in J.-P. MIGNE ed., *Patrologia Latina*, vol. 64, Paris 1847 (coll. 159-294), 159C : « In hoc igitur opere haec intentio est de primis rerum nominibus et de vocibus res significantibus disputare, non in eo quod secundum aliquam proprietatem figuramque formantur sed in eo quod significantes sunt ». See also 160A and 160B.

of its connection to thought, ensured by the act of signifying that turns utterances into significative expressions, our language is firmly linked to reality, in spite of the conventional nature of linguistic signs. This convictions explain why, in spite of a nominalist evaluation of the general aim of the book, he assumes that Aristotle in many crucial passages speaks of extra-mental things, their real features, and their mutual relationships. As a consequence, he can be truly considered the 'father' of both the main and opposite interpretative schools of Aristotle's categorial doctrine during the Late Middle Ages : the Realist school and the Nominalist school. For example, Boethius's commentary on the *Categories* is the main source of both Walter Burley's last commentary on the *Categories* (A.D. 1337) and Ockham's commentary (1320-24) as well, and Burley and Ockham are notoriously the most remarkable thinkers of the Late Middle Ages among the champions of the realist and nominalist approaches to philosophy respectively.

As far as relatives are concerned, he draws the main lines of the Medieval conception and terminology: (1) in his commentary on the *Categories* he costantly holds the principle of the equivalence and correspondence one-to-one between accidental form and substrate of inherence - and this partially explains why Medieval philosophers thought of relations as a sort of monadic properties¹⁸. (2) He introduced Medieval philosophers to four of the six chief terms/expressions ('ad aliquid', 'relatio', 'relativum', 'fundamentum relationis', 'respectus', 'habitudo') which occur in the Medieval theories of relatives, namely 'relatio' and 'relativum' (for which there are not literal Greek equivalent), 'habitudo' (which is a literal, but not a faithful, translation of the Greek 'schesis'), 'ad aliquid' (which translates the Greek expression 'pros ti'). (3) He explicitly denies that there is any difference in meaning between 'ad aliquid' and 'relativum': « Sive autem relativa dicamus, sive ad aliquid, nihil interest »19. (4) He claims that the first definition of relatives is due to Plato, and that at the end of the chapter Aristotle corrects it²⁰: «Huiusmodi autem definitio Platonis esse creditur, quae ab Aristotele paulo posterius emendatur ». (5) He clearly distinguishes between those things whose nouns are said in some way in relation to some other noun (namely, those things which satisfy the first, Platonic, definition of ad aliquid — the relativa secundum *dici* of the Late Medieval tradition) from those (a sort of sub-set of the former) for which being is the same as being somehow connected with something else

¹⁸ The most clear exposition of this principle is set in Burley's last commentary on the *Liber sex principiorum* (A.D. 1337), cap. *de habitu*, in *Expositio super Artem Veterm Porphyrii et Aristotelis*, Venice 1509, Octavianus Scotus per Bonetum Locatellum, fol. 63ra.

¹⁹ BOETHIUS, In Categorias Aristotelis libri quatuor, 217B.

²⁰ BOETHIUS, In Categorias Aristotelis libri quatuor, 217C.

(namely, those things which satisfy also the second definition of *ad aliquid*; the so called *'relativa secundum esse'*).

Many times, in different parts of his commentary, Boethius gives us the reasons for his nominalist choice in the general evaluation of the Aristotelian book. They are of two kinds: extra-textual and textual. The extra-textual reason can be tentatively summarized as follows: logic deals with the syllogism; but a syllogism is a string of three propositions, which as such are nothing but compounded utterances; hence, the *Categories* too, being a text of logic, must treat of utterances, and specifically of non-compounded utterances (*voces*), which are the basic components of the syllogism, just as the *Categories* is the basic and introductory treatise among those which constitute the discipline of logic²¹.

There are also some important pieces of textual evidence adduced by Boethius: in the second chapter, Aristotle gives a fourfold division of things into universal substance, individual substance, universal accident and individual accident; but universality and individuality, even though they are grounded in things, derive their reality from the ways of predication²². In the fourth chapter, when he introduces the table of the categories, Aristotle says that it is a division of what is said (*eorum quae dicuntur*): certainly it is utterances that are said and not things. Moreover, he claims that one of the items of the division into categories signifies either a substance or a quantity, and so on. But only utterances can signify, things being rather what is signified²³. In the fifth chapter (3b10-15), Aristotle asserts that a primary substance signifies a single item (*hoc aliquid* according to the Latin translation) whilst a secondary substance signifies a qualifying (and therefore common or universal) item (*quale quid* according to the Latin translation),

²¹ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 161C-D: « Quare quoniam [161D] omnis ars logica de oratione est, et in hoc opere de vocibus principaliter tractatur (quamquam enim sit huius libri relatio ad caeteras quoque philosophiae partes) principaliter tamen refertur ad logicam, de cuius quodammodo simplicibus elementis, id est, de sermonibus, in eo principaliter disputavit. Aristotelis vero neque ullius alterius liber est, idcirco quod in omni philosophia sibi ipse de huius operis disputatione consentit, et brevitas ipsa atque subtilitas ab Aristolele non discrepat, alioquin interruptum imperfectumque opus edidisse videretur qui de syllogismis scriberet, si aut de propositionibus praetermisisset, aut de primis vocibus tractatum, quibus ipsae propositiones continentur, omitteret ».

²² Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 170B: « Universale autem est quod aptum est de pluribus praedicari, particulare vero quod de nullo subiecto praedicatur ».

²³ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 180C-D: « Ait autem : *Eorum quae secundum nulla complexionem dicuntur*. Adeo non de rebus sed de vocibus tractaturus est, ut diceret : *dicuntur*. Res enim proprie non dicuntur, sed voces. Et quod addidit : *singulum aut substantiam significat*, late patet eum de vocibus disputare ; non enim res sed voces significant, significantur autem res. Sine complexione vero dicuntur (ut dictum est) quaecumque [180D] singulari intellectu et voce proferuntur; secundum complexionem vero quaecumque aliqua coniunctione vel accidentis copulatione miscentur ». See also 162B.

notwithstanding it seems to signify a single item. Given that it is terms alone that can signify, it is evident that in this passage Aristotle refers to the names of individual and universal substances — declares Boethius²⁴. Finally, in chapter seven, in dealing with relatives, Aristotle explicitly refers to words (and, more generally, to what is spoken of), for he constantly speaks of cases, like genitive or accusative.

On the other hand, in Boethius's view, this does not mean that the treatise does not deal with (extramental) things in any sense. In fact, the book is concerned with words of first imposition, which directly refer to things²⁵, and it is not possible to deal with such terms without at the same time dealing with the things signified themselves, for signs and the signified things come always together²⁶: « Res etenim et rerum significatio iuncta est ».

The keystone of Boethius's realist reading (of many points) of the treatise lies in his judgment about the value of the tables in chapters two and four. As is well known, in chapter two (1a20-b9) Aristotle divides the things there are (*ta onta*) into those things which are said of a subject but are not in any subject (or common substances according to the common reading), like man; those which are in a subject but are not said of any subject (or singular accidents), like an individual knowledge-of-grammar; those which are both said of a subject and in a subject (or common accidents), like grammar; and those which are neither in a subject nor said of a subject (or singular substances), like this man here. On the contrary, in chapter four (1b25-2a3), the Stagirite divides the words into ten different groups (or categories), for he affirms that what is said without any combination (*ta legòmena aneu symplokes* — namely, simple expressions) signifies either substance, or quantity, or quality, or relatives, and so on. Boethius thinks that the fourfold division and the tenfold one range over the same sets of entities, for they are the smallest and the biggest possible divisions of everything²⁷:

« Hic Aristoteles sermonum omnium multitudinem in parvissimam colligit divisionem. Nam quod *rerum vocabula decem praedicamenta distribuit, maior hac*

²⁴ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 194C-195D.

²⁵ On the distinction between name of first and second imposition see BOETHIUS, *In Categorias Aristotelis libri quatuor*, 159B-C : « Prima igitur illa fuit nominum positio, per quam vel intellectui subiecta vel sensibus designaret. Secunda consideratio qua singulas proprietates nominum figurasque perspicerent, ita ut primum nomen sit ipsum rei vocabulum. Ut, verbi gratia, cum quaelibet res 'homo' dicatur, quod autem ipsum vocabulum, id est 'homo', 'nomen' vocatur, non [159C] ad significationem nominis ipsius refertur sed ad figuram, idcirco quod possit casibus inflecti. Ergo prima positio nominis secundum significationem vocabuli facta est, secunda vero secundum figuram. Et est prima positio, ut nomina rebus imponerentur, secunda vero ut aliis nominibus ipsa nomina designarentur ».

²⁶ BOETHIUS, In Categorias Aristotelis libri quatuor, 161C.

²⁷ BOETHIUS, In Categorias Aristotelis libri quatuor, 169C-D.

THE INVENTION OF MONADIC TWO-PLACE PREDICATES

divisione non potest inveniri; nihil enim esse poterit quod huic divisioni undecimum adiici queat. *Omnis* enim *res* aut substantia est, aut quantitas, aut qualitas, aut ad aliquid, aut facere, aut pati, aut quando, [169D] aut ubi, aut habere, aut situs ; quocirca tot erunt etiam sermones qui ista significent. Et haec est maxima divisio, cui ultra nihil possit adiungi. *Parvissima vero est quae fit in quattuor*: in substantiam, et accidens, et universale, et particulare. *Omnis* enim *res* aut substantia est, aut accidens, aut universalis, aut particularis. Sicut ergo decem superioribus nihil addi poterat, ita ex his quattuor nihil demi. Nam neque minor ulla divisio his quattuor fieri potest, nec maior quam si denario limite praedicamenta claudantur ».

As a consequence, on Boethius's reading, the division into ten categories is both a division of words and a division of things *extra animam*; in reality itself there are ten different kinds of things, each irreducible to the others. What is more, the division of terms is grounded onto the division of (extramental) things. In the prologue of his commentary Boethius claims that the onomastic activity of men presupposes not only the existence of things, but also the stability of their own natures²⁸. Hence he holds the principle of a close isomorphism between language and the world — that same principle which was to rule the epistemology and semantics of Late Medieval Realist authors.

The core of Boethius's theory of categories is the doctrine of substance, developed in the fifth chapter of his commentaries on the *Categories*. Boethius characterizes substance as something which is a positive being, does not inhere in something else, and is a compound of matter and form²⁹. This seems to mean that primary substances alone (that is, individual, or singular, substances) are substances properly speaking, as secondary substances are not compounds of matter and form. This conclusion is confirmed by his analysis of the distinctive mark (*proprium*) of the category of substance as being capable of admitting opposites while remaining numerically one and the same, a description satisfied only by singular substances³⁰. As a consequence, secondary substances (namely, universal substances) belong to the category of substance by virtue of the individuals that instantiate them, since they do not satisfy the last requirement. And certainly they are not one in number, as requested by the *proprium*. Secondary substances therefore are *per se* in the category of substance only insofar as they are predicated *sicut de subiecto* of individual (or primary) substances³¹.

²⁸ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 159A : « Rebus praeiacentibus et in propria principaliter naturae constitutione manentibus, humanum solum genus exstitit quod rebus nomina posset imponere ».

²⁹ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 184A-B.

³⁰ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 198D-199D.

³¹ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 189C-D.

Boethius explains the relation of *dici de subiecto* introduced by Aristotle in the second chapter of the *Categories* in terms of being the element (or a component) of the essence of something else³²:

« De subiecto vero predicare est, quoties altera res de altera in ipsa substantia praedicatur, ut animal de homine ; nam quoniam animal et substantia est, et genus hominis, idcirco in eo quod quid sit de homine praedicatur. Quare illa sola de subiecto praedicari dicuntur quaecumque in cuiuslibet rei substantia et in diffinitione ponuntur ».

This description of the distinction between primary and secondary substances sheds new light on the semantic basis of Boethius's theory of substance. He identifies the secondary substance with the *quale quid* and the primary substance with the *hoc aliquid*, and consequently secondary substances (namely, the universals of the category of substance) with the *significata* of general nouns of that category (such as 'man') and primary substances (namely, the individuals of the category of substance) with the *significata* of individual expressions of that category (such as 'this man', which refers to a single human individual only). Furthermore, he constantly assumes that common nouns of the category of substance, when used predicatively, specify which kind of substance a certain individual substance is. As a consequence, he thought of secondary substances and individual substances as linked together by a sort of relation of instantiation. In other words, he conceived of primary substances as *the* tokens of secondary substances, and secondary substances in terms of internal qualities of primary substances. He writes³³:

« Qualitas vero haec quae de substantiis dicitur circa substantiam qualitatem determinat; qualis sit enim illa substantia demonstrat. Nam si homo est rationalis, et substantia erit rationalis; sed rationalis qualitas est. Qualem ergo substantiam monstrant secundae substantiae. Quocirca non est hoc proprium substantiae, hoc aliquid significare. Secundae enim substantiae non hoc aliquid (ut dictum est) monstrant, ita tamen quale aliquid monstrant, ut ipsam qualitatem circa substantias determinent ».

If the predicative relation of *dici de subiecto* accounts for the relationship between secondary and primary substances and justifies the ontological primacy of the primary over the secondary substances, the relation of the *esse in subiecto* accounts for the relationship between accidents and primary substances. Accidents

³² Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 176A; see also 184D-185A.

³³ BOETHIUS, In Categorias Aristotelis libri quatuor, 195B-C.

can exist only in primary substances, as their outer determinations (or properties). They are somehow present in secondary substances too, however, but only in so far as secondary substances are essential parts of the primary substances. The relation of the *esse in subiecto* justifies the ontological primacy of the primary substances over any kinds of accidents, since no accident can exist without the substrate in which it inheres.

An obvious consequence of the ontological primacy of the primary substances over the secondary substances and the accidents is that primary substances are the substrate of existence of any other kind of being, as accidents are in them as in a subject and secondary substances are predicated of them as a subject. Like Aristotle (*Categories*, 5, 2b5-6), Boethius can therefore affirm that primary substances are the necessary condition of existence for any other item of the world. In fact, nothing could exist, if they stopped being³⁴. In commenting on the Aristotelian text, however, Boethius stressed much more than it was necessary the nature of substrate (or subject) proper to the primary substance, and common to secondary substances too, as he states that « recte igitur quod prius subjectum est hoc substantia principaliter appellatur »35. But he also maintains that, from a purely metaphysical point of view, the species and genera of primary substances, namely the secondary substances, come before individual substances, since if a species goes extinct, its individuals disappear, but if one individual disappears its species does not go extinct, but it goes on being. So the primacy of the individual (or primary) substance in relation to the universal (or secondary) one holds only at the level of the material world and in relation with our linguistic activity, and the onomastic activity in particular. Like Porphyry³⁶, Boethius claims that in the Categories individual substances are called 'primary' and universals 'secondary' because from a logical (namely, linguistic) point of view, what is individual is first, as it is the first to fall under our knowledge and to receive a name; but naturally and by itself (from a metaphysical point of view, we could say) what is universal is prior to individuals in virtue of its more stable and higher mode of being, since universal and individuals do not reciprocate as to implication of existence, as we have just seen³⁷.

These affirmations are connected with the peculiar interpretation of the relation of the *esse in subjecto* as equivalent to the relation which links the form to the matter. According to Boethius, any accident is present in its substrate of inherence, namely the primary substance, in the same way as the form is present

³⁴ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 186A-B.

³⁵ BOETHIUS, In Categorias Aristotelis libri quatuor, 182D.

³⁶ Cf. PORPHYRY, In Categorias commentarium, pp. 90, 12 - 91, 27.

³⁷ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 183B-184A.

in the matter³⁸. This thesis could analogically imply that the matter itself is a sort of substantial entity and, conversaly, that primary substance is a sort of matter (namely, something somehow 'empty' and undetermined) in relation to accidents, which are like its forms. And in fact Boethius writes³⁹:

« Cum autem tres substantiae sint, materia, species, et quae ex utrisque conficitur undique composita et compacta substantia, hic neque de sola specie, neque de sola materia, sed de utrisque mistis compositisque proposuit. Partes autem substantiae incompositae et simplices sunt, ex quibus ipsa substantia conficitur, specie et materia, quas post per transitum nominat dicens substantiarum partes et ipsas esse substantias ».

And in commenting on Porphyry's claim that an individual is properly constituted by its unique collection of accidents⁴⁰, Boethius adds that the very cause of individuation is the assemblage of the following seven accidents, country, kinship, form, figure, place, time, and naming (all connected with the matter), which cannot in any way be the same in two (or more) primary substances⁴¹.

If the foregoing analysis is correct, the relationship between common natures and singular substances is ultimately grounded on the act of giving a form to (a sort of) matter, since no instantiation is possible without such an act. Giving a form is fundamental to both secondary and primary substances, and to both substances and accidents. Secondary and primary substances are distinct on the level of form, but they are linked together on the level of being and full existence simply by instantiation. Accidental forms, which should be common entities by themselves, become singular by their inhering in primary substances. And inhering is the only possible mode of being for them. So the incomplete kind of being peculiar to any type of form presupposes individual substances. In their turn, individual substances can exist as (meta-)physical entities, located at a particular place in space and time, and can be identified as tokens of a given type only by means of the process of receiving a form through which common natures 'produce' them. Therefore nothing could exist if primary substances stopped existing. From the viewpoint of being and full existence, accidents and secondary substances always presuppose primary substances. However, it is not possible to

³⁸ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 173B-C : « Quare recta est atque integra diffinitio eius quod in subiecto est quod ita sit in altero non sicut quaedam pars, et impossibile sit esse sine eo in quo est, secundum autem illam significationem dicutm est secundum quam formam in materia esse dicimus. Namque forma, si in materia sit, per seipsam nulla ratione consistit ».

³⁹ BOETHIUS, In Categorias Aristotelis libri quatuor, 184A-B.

⁴⁰ Cf. PORPHYRY, *Isagoge*, p. 7, 22-24

⁴¹ Cf. BOETHIUS, In Isagogen Porphyrii, in J.-P. MIGNE ed., Patrologia Latina vol. 64, 114A-D.

find in the world a primary substance that does not belong to a certain species, and without any accident inhering in it. To be a primary substance is to be an independent singular existing item, whereas to be a secondary substance is to be the essence (or common form, or common nature) of a primary substance, and to be an accident is to be a formal aspect or property of a primary substance. Therefore, the distinction between substantial and accidental forms derives from their different relations to primary substances : substantial, universal forms give a nature to primary substances (namely, they give them a mataphysical shape, so to speak); by contrast, those forms that simply affect primary substances without being actually joined to their natures are accidental forms. This means that matter, which is strictly connectwd with singularity in our world, is the main principle for the existence of anything, as no form could pass from a state of potential being (proper to what is common) to a state of actual being (proper to what is singular) without matter. Despite appearances, a conclusion fully in accordance with his neoplatonism.

3. As far as the *ad aliquid* are concerned, the main points of Boethius's interpretation are the following: (1) relatives come in pairs; and (2) there are two main kinds of relatives, those which are connected by the mutual reference of the nouns signifying them (in accordance with the Medieval tradition, we can call them 'linguistic relatives'), and those whose beings are linked each other by an abstract entity (namely, the relation) that inheres in one of them and entails a reference to the other (they can be called 'real relatives'). (2.1) The parts of secondary substances, such as head and hand, belong to the first group of relatives, but not to the second (Categories, 7, 8a13-35). Since no accident can be part of a substance, the first definition of ad aliquid is too wide, whereas the second is perfectly adequate⁴². (2.2) As relatives come in pairs, there always are two (converse) relations which link together a pair of relatives. For instance, given two substances A and B, if A is the father of B, in A there must be a relation of paternity (the relation of being-the-father-of-B) that connects A with B, and in B a relation of childood (the converse of the relation of paternity — in our example, the relation of being-the-child-of-A) that connect B with A.

In the very first lines of the chapter Boethius states what he thinks is the main feature of Aristotle's analysis of *ad aliquid* : relatives come in pairs, since no single relative can be understood to exist by itself. Here what he says on this subject⁴³:

⁴² Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 234D-235B.

⁴³ BOETHIUS, In Categorias Aristotelis libri quatuor, 217A-B.

«Quod autem ait:*ad aliquid vero talia dicuntur*, hoc monstrat, quod non sicut quantitas per se et singulariter intelligi potest. Eodem quoque modo substantia et qualitas, et unumquodque aliorum praedicamentorum, sicut per se constat, ita etiam per se et singulariter intelligitur. Sic ad aliquid per se et singulariter capi intellectu non potest, ut dicamus esse ad aliquid singulariter. Quidquid enim in natura relationis agnoscitur, id cum alio necesse est consideretur. Cum enim dico 'dominus', per seipsum nihil est si 'servus' <non> dicit<ur>. Quocirca, [217B] cum unius relativi nuncupatio mox secum etiam aliud trahat ad aliquid, unum esse per se non potest. Atque ideo non dixit Aristoteles : *Ad aliquid vero tale dicitur*, sed plurali numero : *talia dicuntur* inquit, demonstrans relativorum intelligentiam non in simplicitate sed in pluralitate consistere. Non esse autem quamdam per se relativorum naturam sine coniunctione aliqua alterius subsistente, ipse Aristoteles monstrat, qui dicit ea esse relativa, quaecumque hoc ipsum quod sunt aliorum dicuntur. Docet enim aliqua coniunctione alterius relativa formari, hoc ipsum enim quod sunt aliorum dicuntur. Quod enim est dominus, hoc alterius dicitur, id est servi ».

For this reason, in Boethius's view, Aristotle defines the category of *ad aliquid* in the plural, whereas he always refers to the other categories in the singular. Moreover — he remarks — whatever is known regarding the nature of a relation must be considered together with something else⁴⁴. For example, when one thinks, or speaks, of a master *qua* master, the name 'master' immediately brings to the mind the reference to another thing, namely to the man who is a slave of that master. As a consequence, in commenting on the seventh chapter Boethius assumes that Aristotle's use of the plural indicates that the items belonging to the category of the *ad aliquid* must be ordered into pairs of correlated accidents.

This is the same starting-point of Porphyry's exegesis. According to him, the main characteristic of relatives is that they are thought and spoken of in relation to correlatives that reciprocate. In his view, it is the *schesis* that links a *pros ti* to its correlative, as it is a sort of bridge between two individual substances caused by those real aspects of their nature that allow the two substances to be connected one to the other⁴⁵. The Phoenician seems to suggest that also the *scheseis* themselves must be sorted into pairs, the members of which are simultaneous by nature, like concrete relatives. There cannot be masterhood without slavery, just as it is impossible that somebody is a master if there is not a (correlated) slave⁴⁶.

According to Porphyry's terminology (and more in general according to Neoplatonic terminology) masterhood and slavery are *scheseis*. According to Boethius's terminology they can be called both '*relationes*' and '*habitudines*'. So

⁴⁴ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 217B-C.

⁴⁵ Cf. PORPHYRY, In Categorias commentarium, p. 115, 17-33.

⁴⁶ Cf. PORPHYRY, In Categorias commentarium, pp. 124, 17 - 125, 5.

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what is the relationship between the Greek 'schesis' and the two Latin terms 'relatio' and 'habitudo'? 'Schesis' is a nominalization of the verbal phrase 'pros ti pos echein' that Aristotle uses in Categories, 7, 8a31-32 and 8b1-3 for defining the true relatives, as it is the main part of the *definiens* in the second, more accurate, definition of relatives⁴⁷. That to stand in some way to something (*pros ti pos echein*) is, according to Aristotle, the peculiarity of those relatives which satisfy the second definition explains why for Porphyry the presence of the *schesis* characterizes the real relatives, as opposed to those which satisfy only the first, less appropriate, definition. The Latin translation of 'schesis' is 'habitudo', as Boethius himself recognises in commenting on the sixth chapter, on quantity: « Sed quidam volunt non esse quantitatis quod sursum dicitur et deorsum, sed potius habitudines, quas Graeci 'scheseis' vocant »48. Yet, in Boethius's commentary the term 'habitudo' is used in a different way from how 'schesis' is used by Porphyry, and therefore it has a different meaning. 'Habitudo' seems to have a more general meaning than 'schesis' has got. In contrast, 'relatio' appears to be chosen by Boethius for translating the technical notion of *schesis*, since the *relatio* (the abstract entity signified by the term 'relatio') like the schesis differentiates the relativa secundum esse (of the Late Medieval exegesis) from the so called 'relativa secundum dici'. although, in Boethius's view (as we know), it is present as in a subject in one substance only and simply entails a reference to another, without inhering in it. This terminological shift is probably due to the equivalence that Boethius fixes between the two Latin expressions 'ad aliquid' and 'relativum'49:

« Sive autem 'relativa' dicamus, sive 'ad aliquid', nihil interest. 'Ad aliquid' enim dicitur quod ipsum quidem cum per se nihil sit, relatum tamen ad aliud constat. Ut dominus, [217C] sit desit id ad quod dicitur, id est servus, non est. Dicitur enim ad servum. Manifestum ergo est, si servus desit, dominum dici non posse. Quare dominus ad aliquid dicitur, id est ad servum. 'Relativa' quoque dicuntur idcirco quod eorum nuncupatio semper ad aliquid referatur, ut domini ad servum. Quare nihil interest quolibet modo dicatur ».

Boethius makes use of two couples of terms '*relativum*'-'ad aliquid'/'*relatio*'-'habitudo' for translating the Greek couple '*pros ti*'/'*schesis*'. However, even though '*relativum*' and 'ad aliquid' are perfectly equivalent, '*relatio*' and 'habitudo' are not. There are more than thirty passages which can help us to appreciate the differences

⁴⁷ See Barnes, Porphyry's Introduction cit., p. 53, n. 9.

⁴⁸ BOETHIUS, In Categorias Aristotelis libri quatuor, 212B.

⁴⁹ BOETHIUS, In Categorias Aristotelis libri quatuor, 217B-C.

in meaning between the two terms⁵⁰. A few of them are particularly interesting. The most important passage is that where Boethius claims that those things are relativa which must be considered in comparison with another and according to a certain state of relation⁵¹: «Ea namque sunt relativa quae in quadam comparatione et relationis habitudine consideramus». It is evident that for Boethius the relatio is a particular kind of *habitudo*, and more precisely that *habitudo* (i.e., that state or aspect of a substance) which characterizes the *ad aliquid* or *relativa*. In fact, the relationes are those particular states (or aspects) of substances that entail a reference to a state (or aspect) of another substance without inhering in it⁵². Consequently, for Boethius 'relatio' is the name of the categorial field (praedicamentum) itself⁵³. Like almost all the Medieval commentators of the thirteenth century after him, Boethius does not discuss the problem of which sort of entities fall within the categories of accidents, whether simple accidental forms alone (such as *albedo*) or also the concrete accidents to which the abstract accidents are linked (such as album). He seems to admit that both kinds of accidents, abstract and concrete, fall in the same way into the nine categorial fields of accidents. So it is not surprising that in some context he uses the abstract name 'relatio' and in some other the concrete terms 'ad aliquid' or 'relativa' for referring to the same general set of categorial items. Finally, it is worth noticing that in Boethius's commentary on the *Categories* the first occurence of the term '*relatio*' is non-technical⁵⁴; and, as we have already said, there is not in it any occurence of the term 'respectus'. On

⁵⁰ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 212B, 213B, 213D, 214B, 217A, 218A, 220A, 220B, 221B-D, 222B-C, 224C, 225A-B, 225C, 226A-B, 227B, 227C-D, 227D, 228C, 234C-D, 235B, 235D-236A, 236C, 237A, 239A, 242A, 244A, 255D, 258D, 259D-260C, 261B-C, 262C, 265B, 266B, 270B, 282B.

⁵¹ BOETHIUS, In Categorias Aristotelis libri quatuor, 235D.

⁵² Cf. for instance BOETHIUS, *In Categorias Aristotelis libri quatuor*, 227B ; 227C-D ; 227D ; 228C ; 235B : « Nam, si ad aliquid illa sunt quaecumque id quod sunt aliorum dicuntur, ut id quod est caput capitati dicitur caput, habebit igitur substantia quae est caput ad aliquid *relationem* ; et ita erit substantia relativa atque accidens — quod est impossibile » ; and 235D-236A : « Binarius quoque numerus et binarius est et medietas. Binarius quidem secundum suam [236A] naturam, medietas vero *secundum quaternarii relationem*. Quocirca in comparatione quadam atque in habitudine ea quae sunt ad aliquid speculamur ».

⁵³ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 237A: « Sed tunc merito res aliqua *relationis nomine* continebitur, quoties non solum ad aliquid dicitur sed hoc ipsum esse eius ad aliquid est quodammodo se habere »; 239A: « Consueta in principio quaestio est cur post *relationis predicamentum* disputationem qualitatis aggressus est, quod nimis curiosum est » ; and 282B : « Dictum est *in relatione*, quaedam relativa simul esse naturaliter, ut cum sit filius, pater est, cum vero sit pater, sine filio esse non posse ».

⁵⁴ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 161D: « Quoniam [161D] omnis ars logica de oratione est, et in hoc opere de vocibus principaliter tractatur (quaequae enim sit huius libri *relatio* ad caeteras quoque philosophiae partes) principaliter tamen refertur ad logicam ».

the contrary, in Late Medieval tradition very often the *respectus* 'embraces' all the seven non-absolute categories⁵⁵.

4. At this point, we have almost all the elements necessary for a full understanding of Boethius's invention of the monadic two-place predicates. Before placing the last tessera of our mosaic, namely Boethius's interpretation of the so called 'knowing definitely' clause, something has to be said about his acceptance of the principle that there must always be equivalence and correspondence between the accidental form and its substrate of inherence. This principle is the logical result of his analysis of the table of beings of chapter two. As is well known, the Aristotelian text raises a problem, still matter of controversy, in relation to the nature and ontological status of singular accidents, namely those things that are in a subject but are not said of any subject. According to the standard, traditional reading⁵⁶, a singular accident (for example, a certain form of whiteness) is *a sort* of trope, i.e. an abstract but individual entity that is not repeatable in a different substrate. The occurrence of a certain nuance of red (say red,) in a substance A and the occurrence of exactly the same nuance of red in a different substance B are two numerically distinct accidents, individuated by the different singular substances in which they inhere. Nevertheless, Aristotle's words can be interpreted in a different way⁵⁷: a singular accident is a repeatable entity that can be *present in* more than one substance at once. It cannot be said of (in the technical sense stated by Aristotle in the chapters two, three and five of the *Categories*) them nor of any other entity, however. As a consequence, the occurrence of a certain nuance of red (say red.) in a substance A and the occurrence of exactly the same nuance of red in a different substance B are not two numerically distinct accidents, but a unique accident 'shared' by two different substances. Boethius seems to be a staunch supporter of the traditional reading (cum vero particularitas accidenti

⁵⁵ Cf. for instance HENRY OF GHENT, *Summa quaestionum ordinariarum*, artt. 31-34, in *Opera omnia*, vol. 27, ed. R. MACKEN, Leuven University Press, Leuven 1991, pp. 79-80; WALTER BURLEY, *Tractatus super librum Praedicamentorum*, provisional edition by A. D. CONTI (2006), URL = <www-static.cc.univaq. it/diri/lettere/ docenti/conti/Allegati/ WB_praedicamenta.pdf.>, pp. 26, 24 - 27, 2. In this same text (the middle commentary on the *Categories*, written in the first decade of the fourteenth century), just few lines below the passages referred to, Burley writes : « Illa sex praedicamenta respectiva quae non sunt *relationes seu habitudines relativae* important respectum ad aliquid a quo causantur ». Therefore, according to Burley, the *relationes are habitudines relativae*. It seems to me a clear example of the influence exerted by Boethius's ideas on Late Medieval commentators of the *Categories*. Even if the context is non-Boethian (Burley openly speaks of *praedicamenta respectiva*), one of the main theses of his interpretation (the subordination of the *relationes* to the *habitudines*) is restated here.

⁵⁶ See for example AckRILL, Aristotle's Categories and De interpretatione cit., pp. 74-76.

⁵⁷ See for example G. E. L. OWEN, Inherence, « Phronesis », 10, 1965, pp. 97-105.

coniungitur, fit accidens particulare, ut Platonis vel Aristotelis scientia)⁵⁸. Thus, it is impossible for him that a unique accident inheres in two (or more) substances, neither at once nor successively — not even numbers, the different parts of which (the unities) are present in their own distinct subjects of inherence⁵⁹. The application of this principle to relatives implies that the relation must be seen as a 'monadic property' which incorporates in itlself a reference to a second substance, different from the subject of inherence of that relational property.

The final step in the building up of the set of monadic two-place predicates is connected with the interpretation of the last lines of the chapter seven, where Aristotle introduces the second definition of relatives and the 'knowing definitley' clause (8a35-37 — Ackrill's translation p. 23): « It is clear from this that if someone knows any relative definitely he will also know definitely that in relation to which it is spoken of. This is obvious on the face of it. For if someone knows of a certain *this* that it is a relative, and being for relatives is the same as being somehow related to something, he knows that also to which *this* is somehow related ». Aristotle has been sharply criticized for this. For instance, Ackrill⁶⁰ points out that Aristotle appears to be claiming that according to the first definition one could know that something is a given relative, say a slave, without knowing what it is the slave of. On the contrary, on the second definition one could know that a certain thing is a given relative if and only if one knew what it is a given relative (a slave) of. However — Ackrill remarks — this would make the second definition too strong, since it would not be satisfied by indisputably relative such as *half* or slave. « One can know that 97 is half some other number without knowing what that number is, and that Callias is a slave without knowing who his master is »⁶¹. Boethius's interpretation of the Aristotelian passage and the consequent invention of the monadic two-place predicates is a serious attempt (made ante litteram, so to speak) to escape such a criticism.

This is what Boethius writes in commenting on that controverse passage of the *Categories* :⁶²

⁵⁸ Cf. BOETHIUS, *In Categorias Aristotelis libri quatuor*, 170B-C; and 171D-172A. It is worth noting that for Boethius, the Neoplatonic commentators of the *Categories*, and the most part of Medieval commentators accidents can be both abstract and concrete entities (see above, pp. 124-125). The latter cannot be considered as a sort of tropes.

⁵⁹ Cf. BOETHIUS, In Categorias Aristotelis libri quatuor, 207B-208B.

⁶⁰ Cf. ACKRILL, *Aristotle's Categories and De interpretatione* cit., pp. 102-103. See also P. STUDTMANN, *Aristotle's* Categories, in E. N. ZALTA ed., *The Stanford Encyclopedia of Philosophy* (Summer 2014 Edition), URL = http://plato.stanford.edu/archives/sum2014/entries/aristotle-categories/.

⁶¹ ACKRILL, Aristotle's Categories and De interpretatione cit., p. 102.

⁶² BOETHIUS, In Categorias Aristotelis libri quatuor, 237A-238A.

« Proprium relativis secundum eam quae superius dicta est definitionem hoc esse confirmat, quod si quis id quod est ad aliquid definite scit, quoniam [237B] relativam est, et illud ad quod referri potest definite sciturus est quid sit. Nam relativa ea sunt quibus hoc est esse ad aliquid quodammodo se habere, quoniam ut sit quaternarius duplum a binario trahit. Si quis novit esse quaternarium numerum duplum, et binarium necessario sciturus est esse dimidium, ad quem quaternarius duplus est. Fieri enim nullo modo potest ut, cum quis noverit aliquam rem esse relativam definite, non illud quoque sciat ad quod illa res dicitur definite. Huius autem rei una probatio est quae ex definitione venit. Definita enim sunt illa esse ad aliquid quorum ea esset substantia, ut quodammodo se ad aliquid haberent, quod si scio quaternarium numerum esse duplum, eo quod ad binarium quodammodo coniungatur, nullus quaternarium duplum [237C] esse poterit scire, nisi qui sciet medietatem esse binarium. Et hoc quidem in omnibus consideretur. Nam si nesciat quis ad quid aliquid referatur eorum quae relativa sunt, illud quoque ignorabit, utrum ommino ad aliquid referatur, quod his verbis Aristoteles dicit ... <quod> si duplum ad aliquid esse novimus, scimus quoque id cuius duplum est; quod si nescimus id cuius est duplum, duplum autem esse cuiuslibet rei ex hoc est, quod ei sit medietas, ipsam quoque rem quae dupla sit, utrum dupla sit scire non possumus. Si igitur definite novimus quamlibet illam rem esse duplam, etiam cuius dupla est definite nos scire necesse est. Ut si novit quis Anchisem patrem definite esse [238A] Aeneae, et Aeneam definite filium esse agnoscet, vel si indefinite novit quoniam pater est, indefinite etiam sciturus est quoniam filii pater est. Et rursus si Aeneam quis indefinite novit quoniam filius est, sciturus quoque est indefinite quoniam patris est filius. Manifestum est ergo quoniam ea quae sunt ad aliquid, si definite ad aliquid esse sciantur, etiam illud definite sciendum est ad quod illa referuntur. Quod in substantiis non eodem modo esse Aristotele probamus auctore, qui huius quaestionis seriem ita concludit: In capite, inquit, et in manu, et in aliis substantiis non est verum, quoniam si quis aliquid horum alicuius esse novit, et ad aliquid aliud referri, idcirco et ad quam <substantiam> referatur definite sciturus est ».

He seems to be convinced that the first definition takes into consideration only the meanings of the terms and their connections, so that when one knows that a certain man is a father, from the meaning of the term 'father' one can truly infer that that man is the father of (at least) one child, but one is not able to know what it is the father of. Our semantic competences are obviously insufficient for such a task. On the contrary, if we look at the reality of things, namely to the real properties of substances, then it is impossible to know that someone, say Anchises, is a father without knowing that he is the father of Aeneas, since Anchises' paternity must necessarily be an individual accident inhering in Anchises and referring to his actual son (that is, another individual substance with a certain property) and not to an abstract and general meaning (or, according to Boethius's terminology, a universal). If the foregoing analysis is correct, the logical form of a sentence with relational predicate such as

(1) 'Odysseus is the father of Telemachus

is different for us and for Boethius. While for us (and, to a certain extent, for Neoplatonic commentatores) the following formula exhibits the logical form of sentence (1):

(a) 'F(o,t)',

for Boethius the formula should be:

(b) $F_{t}(o)$,

where ' F_t ' refers to the singular property (the individual, concrete accident, in Boethius's metaphysical system) of *being-the-father-of-Telemachus*. Thereby there are two important differences between (a) and (b): in (a) there are two (places for) arguments (or subjects of inherence, according to Boethius's and Neoplatonic terminology), that must be taken in a given order, but in (b) only one. Moreover, ' F_t (*x*)' differs from 'F(x,y)' also insofar as we can define 'F(x,y) in terms of an ordered triple of sets, one of which is the sub-set of the Cartesian product of the first two, whereas ' F_t (*x*)' cannot be defined in such a way, as it singles out just one item only (it actually functions as *a sort of* iota operator, since it denotes the unique things that is F_t). According to Boethius's terminology : 'F' refers to a universal entity, but ' F_t ' to an individual (or singular) entity.

If so, then the ultimate outcome of Boethius's analysis and interpretation of the seventh chapter of the *Categories* is quite paradoxical : Boethius is able to provide a plausible interpretation of the controverse 'knowing definitely' clause, but at the price of compromising the goal of any correct categorial theory, namely, the classifying and putting in hierarchical order world items (and the correlated linguistic terms) according to their peculiar modes of being, metaphysical nature, and essential properties. In fact, a consequence of the invention of the monadic two-place predicates so conceived is that in Boethius's world those entities that could be identified as the species and genera of true relations⁶³ ('things' such as *being-a-father* or *being-greater-than*) are not in their own turn true relations, for the 'knowing definitely' clause does not apply to them.

⁶³ Those entities are true relations which satisfy the second definition given by Aristotle.

ABSTRACT

Relations and Relatives in Boethius's Commentary on the Categories : the Invention of Monadic Two-place Predicates

That of *ad aliquid* is the most problematic category among the ten listed by Aristotle in the homonymous treatise. In Late Antiquity and the Middle Ages many authors attempted to develop new formulations of the Aristotelian theory of relatives, since Aristotle's account of *ad aliquid* in the *Categories* is imprecise and incomplete. From a purely theoretic point of view, in Late Antiquity the most successful attempt to improve the Aristotelian doctrine was that of the Greek Neoplatonic commentators. They were able to elaborate a notion of relation (schesis) almost equivalent to a hypostatization of our modern notion of twoplace predicates, as they conceived of relations as abstract forms whose distinctive feature was the property of being present-in and joining two different substances at once. Yet, for the history of Medieval philosophy, far and away the most influential attempt to clarify Aristotle's text was that of Boethius, who, faithful to Aristotelian teaching, maintained that relation was an accident (we could say 'a property') which was-in a substance (its substrate of inherence) and simply entailed a reference to another, without inhering in it. Thus, unlike Greek Neoplatonic commentators of che Categories (and modern logicians as well), Boethius did not think of a relation as a two-place predicate, but he seems rather to consider it as a sort of monadic two-place predicate, or function. The difference between Boethius's conception and ours is that according to him each relation has only a place empty for individual variables and the other filled by an individual constant. The paper is aimed at clarifying the legacy Boethius left to the Medieval thinkers in relation to the theory of *ad aliquid*, namely the logical and terminological apparatus drawn up in order to solve the chief problems raised by the seventh chapter of the *Categories*, with the general interpretative context in which the apparatus itself was set.

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