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# MEDIOEVO

RIVISTA DI STORIA DELLA FILOSOFIA MEDIEVALE

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L'impegno ontologico nella logica medievale

Ontological Commitment in Medieval Logic

a cura di / edited by  
Laurent Cesalli, Parwana Emamzadah  
Frédéric Goubier

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## PRESENTATION

*Let a theory be a set of sentences. In order for these sentences to be true, certain things have to exist. Following William van Orman Quine, we usually say that the theory is ontologically committed to the existence of these things.<sup>1</sup> That seems straightforward enough. But theories are not like TV dinners, carefully labelled with an ingredient list. Not everything they require or presuppose is explicitly indicated; a criterion is needed to identify their ontological commitments. Quine proposed one, often summarized by the famous saying «to be is to be the value of a bound variable», which has been as influential as it has been disputed.<sup>2</sup>*

*As appealing as this criterion is in its simplicity, its application as conceived by Quine can turn out to be problematic due to its highly restrictive nature. For, unless the theory to which it is applied is already formulated in first-order predicate logic, it requires before being applicable at all no less than a reformulation (paraphrase, translation, existential generalization) of its sentences into the language of first-order predicate logic.<sup>3</sup> It is not the only limitation of Quine's criterion, but it is one of the most blatant for historians of medieval philosophy, who are dealing with theories not easily reducible to first-order predicate logic. Take the beloved (medieval) example 'a man is an animal', a sentence generally accepted as true. In order to be tested according to Quine's criterion, that*

1. W. van O. Quine, *On What There Is*, «Rev. Meta.», 2/5 (1948), 15-16, reprinted in Id., *From a Logical Point of View: Logico-Philosophical Essays*, Harvard University Press, Cambridge (Mass.) 1953, 1-19.

2. Quine, *On What There Is*, 13-14: «a theory is committed to those and only those entities to which the bound variables of the theory must be capable of referring in order that the affirmation made in the theory be true». For an introduction to the various discussions raised by Quine's criterion, see P. Bricker, *Ontological Commitment*, in E.N. Zalta (cur.), *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), <https://plato.stanford.edu/archives/win2016/entries/ontological-commitment/>

3. For a critic of Quine's paraphrase step, see F. Jackson, *Ontological Commitment and Paraphrase*, «Philos. Stud.», 141/1 (2008), 43-61.

sentence first has to be translated into a language comprising quantifiers and variables: ‘there exists a  $x$  such that  $x$  is a man, and  $x$  is an animal’. Although determining the ontological commitment of a given theory is a highly sensible desideratum, it is hardly obvious that this kind of translation or paraphrase does everything one can legitimately expect of it. Medieval philosophers spent a lot of time and intellectual energy in discussing the ontology of properties such as the one signified by the predicate of our example.<sup>4</sup> But the limitations set by Quine to his own criterion block a priori any reification of properties.<sup>5</sup> In view of the importance of the semantics of common names in a philosophically central debate such as the one about universals, for example, it seems that the price to be paid for the elegance of the Quinean criterion is too high: much of the ancestral antagonism between realism and nominalism, after all, boils down to the question whether terms signifying properties are ontologically committing or not.<sup>6</sup> Moreover, reducing the highly sophisticated and original body of medieval theories to first-order predicate calculus would undoubtedly entail the loss of much of this sophistication and originality. In that sense, the reduction required by Quine’s criterion amounts to an impossibly radical answer to the “paradox” faced by most historians of (old) theories: how to reconstruct them so as to make them understandable by, or even relevant to, us without betraying them? As demonstrated by this volume, this is especially true for the problem of identifying the ontological commitments of some of these theories.

Alternatives to the purely syntactical criterion of first-order logic paraphrase have been proposed, including a purely semantic criterion.<sup>7</sup> In Claude Panac-

4. See e.g. A. de Libera, *La querelle des universaux de Platon à la fin du Moyen Âge*, Le Seuil, Paris 1996; C. Erismann, *L’homme commun. La genèse du réalisme ontologique durant le haut Moyen Âge*, Vrin, Paris 2011; C. Tarlazzi, *Individui universali. Il realismo di Gualtero di Mortagne nel XII secolo*, FIDEM, Barcelona-Roma, 2018.

5. As pointed out by Bricker, *Ontological Commitment*, section 1.7.1: « Quinean criteria, however, by focusing only on the values of the (individual) variables, have been accused of being ontologically biased against realism about properties or universals because they fail to attach ontological significance to the predicate ».

6. To be sure, a nominalist could perfectly maintain that terms signifying properties – such as ‘man’ in ‘Socrates is a man’ – are indeed ontologically committing. Nominalists do not maintain that universals are fictions, but only that they are signs and nothing beyond signs (there is no universality but *in significando*). But such an ontological commitment is not an instance of property reification, and that is what is at stake in the debate between realists and nominalists.

7. As explained by C. Panaccio – *La question du critère d’engagement ontologique*, « Rev. Univ. Ottawa », 55(4) (1985), 33-44 – the idea goes back to a work by R.A. Eberle, *Nominalistic Systems*, Reider, Dordrecht 1970.



cio's formulation: «Entities of a certain kind are admitted by a theory if and only if some of them must be evoked by at least one expression in at least one statement of the theory in order for the theory to be true», where 'evocation' means «the most general semantic relationship between a linguistic expression and the entities to which it refers in one way or another».<sup>8</sup> It is in that more flexible, purely semantic sense that we take the notion of ontological commitment – a sense that allows applying the general Quinean idea to the highly complex matter of medieval logic without risking to lose any of its originality.

As for medieval logic itself, a word on the nature of that discipline is in order. For, as a matter of fact, what medieval thinkers called 'logica' or 'dialectica' only partially (and rather modestly) coincide with what nowadays' logicians mean by 'logic'.<sup>9</sup> Medieval logic is also, but not exclusively, a practical discipline teaching (typically beginners) how to distinguish the true from the false, how to formulate sound arguments and how to spot deficient ones. Precisely because medieval logic is more akin to something like philosophy of language (in a broad sense) than to post-Boolean or post-Fregean formal logic, what one finds in medieval logical literature often pertain to semantics, philosophy of mind or even metaphysics.<sup>10</sup> As will become clear in the last section of this Presentation, where the different contributions of the present special issue are summarized, the term 'logic' in the volume's title is to be taken in such a medieval, polyphonic sense.

While the Quinean criterion is of little use for complex theories developed more than half a millennium ago, the issue of ontological commitment it has placed under the philosophical spotlight is an exceptionally fecund one for the historian of medieval logic. Conversely, the medieval period offers opportunities to bring new angles to the still lively discussions on ontological commitment.

Indeed, medieval theories display, on the one hand, a unique richness in terms of the sophistication of the ontologies to which they are committed (with respect to the variety of entities and modes of being), and, on the other hand,

8. Panaccio, *La question du critère d'engagement ontologique*, 39.

9. See e.g. E.J. Ashworth, *Logic, Medieval*, in *Routledge Encyclopedia of Philosophy*, Taylor and Francis, <https://www.rep.routledge.com/articles/thematic/logic-medieval/v-1>; T. Parsons, *Articulating Medieval Logic*, OUP, Oxford 2014; L. Cesalli - F. Goubier - A. de Libera (cur.), *Formal Approaches and Natural Language in Medieval Logic*, Brepols, Turnhout 2016; T. Parsons, *Articulating Medieval Logic*, OUP, Oxford 2014.

10. See L. Cesalli, *What is Medieval Logic After All? Towards a Scientific Use of Natural Language*, «Bull. Philos. Méd.», 52 (2010), 49-53.

discussions of remarkable length and depth about entities as well as about the commitment to their existence – and of course about the nature of being itself. Medieval philosophers took their theories' ontological commitments very seriously, to such an extent that those commitments can be reason enough for either defending or rejecting a given theory.<sup>11</sup> Medieval logicians argued endlessly about the most controversial of these commitments, some of which testify to a singular ability to expand the boundaries of the standard, Aristotelian ontology of substances and accidents: from dicta to *complexe significabilia*, from *possibilia* to *imaginabilia*, from *intensional* entities to *qua-things*, *ficta* and other *praeteritiones* and *futuritiones*. The world of medieval entities bearing a less than intuitive ontological status – in our eyes at least – is plentiful.

Presumably, the awareness of medieval philosophers with respect to their theories' ontological commitments results from the central role they give to semantics in their theories (as mentioned above, semantics is, in their minds, an important part of logic). This leads them to have in mind more often than not the relation between the sentences of their theories and the entities these sentences are about. Their awareness is, in a way, the product of their linguistically-minded approach to philosophy.

One of the consequences of this unusual sensitivity to words, sentences, meanings and extensions is that the issue of the criterion of ontological commitment is less of a problem for the historian of medieval philosophy than perhaps it is for the specialists of other periods or traditions. Medieval ontological commitments, whilst not always explicit and sometimes hard to comprehend, are often easily discernable without the need for a paraphrase into some formal language. For the most part, not only do they rather straightforwardly meet the requirements of an open-minded semantic criterion as the one presented above, through the metalanguage provided by the theory, but they are also explicitly discussed.<sup>12</sup>

11. See for instance the medieval reception of the *complexe significabilia*, especially in Gregory of Rimini's version: J. Zupko, *How it Played in RUE DE FOUARRE: The Reception of Adam Wodeham's Theory of Complexe Significabile in the Art Faculty at Paris in the Mid-Fourteenth Century*, «Francisc. Stud.», 54 (1994-1997), 211-225.

12. Medieval philosophical theories typically offer a mix of explicit and implicit commitments, in Peacock's understanding of the two notions (H. Peacock, *Two Kinds of Ontological Commitments*, «Philos. Quart.», 61/242 (2011), 79-104), with the ontological status of certain implicit commitments explicitly discussed and explicit commitments so consensual that they are not considered worth any discussion.

Another consequence is that medieval ontological commitments – and medieval approaches to ontological commitment – bear interesting challenges for historians of philosophy as well as for contemporary philosophers. They can for example challenge our own notion of ontological commitment, and maybe some of our most entrenched intuitions about ontology. More specifically, they can lead one to reconsider her conception of the nature and location of the border between what is mental and what is extramental: see for example the idea that there are propositiones in re defended by a few 14<sup>th</sup>-century authors,<sup>13</sup> or the view expressed by Dietrich of Freiberg that some of the essential features of things are produced by the intellect,<sup>14</sup> or even Marsilius of Inghen's idea that impossibilia belong to the fifth dimension of time.<sup>15</sup> Ontological commitment is quintessentially one of these topics whose historical reconstructions can be as arduous as they are potentially useful to help us identify and question some crucial – and implicit – assumptions at work in contemporary discussions.

Finally, a more practical consequence of such a mix of theoretical richness and historiographical as well as philosophical challenges is the steady stream of studies about the ontological commitments of medieval theories during the last three or four decades.<sup>16</sup> This special issue draws on the results of this flourishing field by shedding light on the variety and richness of medieval ontological commitments through a selection of key topics, from the significates of propositions to possibilia, to the status of impossible objects, of the principles of logic or of necessary true statements, or to the notion of truth itself, representing different facets of these commitments. This volume also aims at giving insights into the diversity of medieval positions through a sampling of philosophers belonging to the most productive period of medieval philosophy, from the beginning of the 12<sup>th</sup>-century to the end of the 14<sup>th</sup>, and to different traditions (Oxonians and Parisians, etc., plus realists and nominalists).

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The papers gathered in the present special issue are organized chronologically. In the opening one, Laurent Cesalli comes back on the debated question

13. Cf. L. Cesalli, *Le réalisme propositionnel*, Vrin, Paris 2007.

14. Cf. D. Perler, *Théories de l'intentionnalité au moyen âge*, Vrin, Paris 2003, 77-106.

15. Cf. A. de Libera, *La référence vide. Théories de la proposition*, PUF, Paris 2002, 103.

16. For a general assessment of medieval ontologies, see L. Cesalli - N. Germann (cur.), *On What There Was. Conceptions of Being 500-1650*, Brepols, Turnhout (forthcoming).

of how the Abelardian notion of «what propositions say» (*dicta propositionum*) should be understood. Cesalli suggests that Abelard's propositional semantics is committed to the existence of *dicta* conceived as objective products of mental acts. Understood in that sense, *dicta* appear to be medieval anticipations of what some early phenomenologists such as Carl Stumpf or Kasimierz Twardowski will call "formations" (*Gebilde*). Thus, with respect to the interpretation of Abelard's seemingly deflationist claims – such as '*dicta* are entirely nothing' (*nihil omnino*) – the idea is that far from refusing any ontological status to *dicta*, those claims, on the contrary, point towards an ontological status distinct from that of things (*res*), i.e. to something like an ontological status *sui generis*.

In the second paper of the present special issue, Ana María Mora-Márquez offers a genetic and comparative study of Radulphus Brito's account of truth. The paper shows how Brito, writing at the turn of the 14<sup>th</sup>-century, attempts to give a unified theory of truth – 'unified' meaning 'encompassing the different key claims made by Aristotle on that matter'. In so doing, Brito comes up with a sophisticated correspondentist account: the predicate 'true' primarily applies to something mental (i.e. to the intellect), but always in relation to the extramental world. Compared to the accounts proposed by some of his predecessors – Nicolas of Paris, Robert Kilwardby, Martin of Dacia, Simon of Faversham – Brito's conception of truth appears to resist two types of reductionism: one that takes truth to be a property of things (Nicolas of Paris, Robert Kilwardby), and another that considers that some kind of mental being (*ens rationale*, *ens intellectuale* and the like) can assume the role of truthmakers, at least in some cases (Martin of Dacia, Simon of Faversham).

Danya Maslov, author of the third paper, considers a special but fundamental aspect of the more general issue of propositional realism, namely the problem of the ontological status of the first principles – non contradiction and excluded middle, respectively labelled PNC and PEM – in the philosophy of the early Scotist Francis of Meyronnes. While commentators of Aristotle's *Metaphysics IV* traditionally discuss those principles, Francis appears to be the first to raise the question of their ontological status: what kind of entities might such principles be, whose validity obviously transcend any contingency? On the background of Scotus' thesis of the univocity of the concept of being as well as of Peter of Auvergne's analogical account of truth – an analogy that Francis literally turns on its head, for according to him truth is *per prius extra animam* while Peter argues for the reversed order – Francis elaborates

yet another answer: like universals, first principles belong to something like a third realm. Their being objectively in the mind and subjectively outside of it are only derivative with respect to what they are per se, namely something that is neither in nor extra anima(m).

One of the issues that has puzzled historians of medieval logic for quite some time is the ontological status of *possibilia* – merely possible objects. For many medieval logicians, including William of Ockham, *possibilia* need not ever be actualised and yet can make propositions true. Claude Panaccio tackles the issue by describing Ockham's (implicit) criterion of ontological commitment: an item belongs to ontology if it is semantically related (by signification, supposition or connotation) to a term of a true proposition. Such a criterion leads Ockham to accept merely possible entities in his ontology, for such items are precisely required for certain propositions – namely modal propositions such as 'Any man can be white' – to be true. Consequently, Panaccio concludes that *possibilia* must be given a special ontological status in Ockham's theory: they are not nothing according a strong sense of 'nothing', and they are something according to a sense of 'being' that is wider than 'actual being'.

Ernesto Perini-Santos focuses on Adam Wodeham's responses to the question whether something is signified by sentences beyond what is signified by their components: do propositions have special significates? Assuming a position that sends Walter Chatton and William of Ockham back to back, Wodeham famously gives a positive answer to that question by introducing *complexe significabilia* as total and adequate propositional significata that also (and crucially) assume the role of being the objects of assent. While the literature hitherto focused on Wodeham's critique of Ockham's "mentalist" account – objects of assent are nothing but mental sentences – Perini-Santos focuses on the arguments Wodeham opposes to Chatton's "reist" account – things, *res*, are what one assents to. The paper reconstructs and discusses Wodeham's main argument, namely that things cannot be objects of assent for they lack the structural complexity required for being correlated to different types of judgements. On Chatton's account the very same object is subjected to possible assent in the two contradictory judgements 'Deus est Deus' and 'Deus non est Deus' – which is not possible. What is needed is a *sui generis* propositional significate or object of assent whose structure mirrors the syntax of sentences – and that is precisely what *complexe significabilia* are supposed to be.

Joël Biard considers the surprising revival of natural supposition in John Buridan's treatises, and explains why Buridan adopts such a notion. In the

13<sup>th</sup>-century, natural supposition refers to the extension a term has when nothing – no propositional context – impedes it: the broadest possible extension, which includes each and every thing “falling under” the signification of the term (e.g. past, present, future and possible horses in the case of the term ‘horse’). It was a popular Parisian position, which usually was tied to a conception of signification committed to the existence of common natures. In the 14<sup>th</sup>-century, Buridan – together with, for instance, Vincent Ferrer – is one of the few logicians to embrace it, albeit in quite a different version than that of his predecessors. Indeed, Buridan includes natural supposition within a theory committed to a nominalist ontology, which rejects the existence of common natures. Biard shows how Buridan uses natural supposition as a device that takes necessity to be equivalent to omnitemporality, which, in turn, allows to make true the necessary propositions of scientific discourse without having to resort to common natures as significates of these sentences.

In her contribution, Graziana Ciola tackles the issue of the status of imaginabilia in late 14<sup>th</sup>-century logical literature. Focusing on Marsilius of Inghen’s account of imaginable entities – but not without contrasting it with the views of some of his Buridanian fellows such as Albert of Saxony and Nicole Oresme – Ciola examines three cases where logicians appeal to merely imaginable entities: first, true sentences about impossibilia secundum quid, i.e. factually non-existing, yet non-contradictory entities such as a chimera, the void or a geometrical point; second, in true sentences about impossibilia simpliciter, i.e. contradictory entities such as an ass-man or the round square; third, Marsilius’ original account of ampliation defined as the acceptance of a term in a proposition for something that differs from what actually exists (in that sense, not only terms in true sentences with verbs in the past and future tense are amplified, but also terms in true modal sentences and, by definition, in true sentences about merely imaginable entities). Marsilius’ account of imaginabilia appears to be a limiting case of ontological commitment: his semantics entail that amplified terms do have supposita, although those supposita are nothing in the world.

The closing paper of this special issue, by Magali Roques, is dedicated to Vincent Ferrer’s account of natural supposition. In her study, Roques comes back on Ferrer’s rather iconoclastic view according to which it is not required for a proposition to be true that its terms be non-empty. Thus, essential predications, typically made in scientific statements such as ‘man is an animal’, are true even if there is no man in the world. In order to meet the requirements

*of supposition theory in those difficult cases, Ferrer, like Buridan before him, appeals to the notion of natural supposition he defines as «a property of a common term that is taken with respect to a predicate that is essentially suited to it». As Roques points out, this account of scientific statements makes them omnitemporally true and Ferrer's use of natural supposition can be seen as an anticipation of later "free logic", i.e. of a logic free of existential assumptions. Regarding the ontological commitment of such an account of essential predication, Roques concludes that Ferrer's ontology is an instance of moderate realism allowing for everlastingly obtaining states of affairs, namely those composed of some common nature and at least one of its essential property.*

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*Let us end this brief presentation with a few words of thanks. Our gratitude goes first of all to the speakers and participants of the conference and doctoral school organized in December 2016 in Geneva around the theme of ontological commitment in medieval logic, as well as to the Institutions that, through their financial support, have allowed the event to take place: the Swiss National Science Foundation (SNF), the Mlle Marie Gretler Stiftung, the Commission Administrative of the University of Geneva, the Faculté des Lettres as well as the Department of Philosophy of the University of Geneva. We would also like to warmly thank the editors in chief of Medioevo for their patience, their efficiency, and their professionalism, as well as Mr. Eduardo Saldaña, for proof reading the whole manuscript. Finally, our special gratitude goes to Dr. Magali Roques who, before withdrawing from the editors of this special issue, substantially contributed to its preparation.*

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