I. Introduction

1.1. On the medieval study of language in general

The medievals attached great value to texts. This might explain their interest in the signification of terms and of the propositions constituted by those terms. In the texts that they had available, they also found different theories of language and of signification: a logical approach in Aristotle and the Stoics, a theological approach in Augustine, and grammatical speculations (with a strong semantical orientation) in Donatus (4th cent.) and Priscian (6th cent.).

To appreciate the ways in which language was studied in the Middle Ages, it is useful to note that in the earlier period of medieval philosophy, from Boethius (±500) to Johannes Scottus Eriugena (±810-±880), there was no clear distinction between a grammatical and a logical approach to language. In Anselm of Canterbury's *De grammatico* (1033-1109) we see logic beginning increasingly to dominate grammar. This is also clear in Peter Abaelard (1092-1141). Grammatical speculations do not disappear, but remain, for instance in the *grammatica speculativa* from Roger Bacon (1214/1220-1292) onward and in the theories of the so-called Modists. In the fourteenth century, on which I shall concentrate in this paper, logical analysis is predominant. The relation between logic and grammar plays an important role in this paper. The theories of semantics were among the most important medieval contributions to the history of philosophy.

1.2. The problem

Let us consider what happens, from a fourteenth-century philosopher's point of view, when someone utters a proposition ('proposition' here in the sense of 'declarative statement' in which something is said about reality or in which a logical relation is expressed). The speaker is supposed to have in his mind a proposition of some sort, in what can be labelled 'mental language'. His intention is that his hearer will

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1 Thanks are due to Dr. J. McAllister (Leiden) for the correction of my English, and to Dr. G. Sundholm for his suggestions.

2 The medievals characterized these grammarians as being interested primarily in the *partes orationes* and in the correct connections of those kinds of words in sentences, but, like all ancient grammarians, these grammars are semantics-based. C.H. Kneepkens, 'The Priscianic Tradition', in *Sprachtheorien in Spätantike und Mittelalter*, Ed. S. Ebbesen (Tübingen 1995). 239-264, esp. 254.
understand what he means by his words, reconstructing in some way what is in his mind. So the use of speech is to translate our mental discourse into verbal form, or a train of thought into a train of words. Mental language is the primary signification in medieval theories, one could say, though other kinds of signification are also considered.

There are different kinds of propositions by which signification is conveyed. One example is a proposition like 'Socrates is white' (such 'assertorical' propositions are traditionally the preferred kind of investigation.) But there are other kinds, e.g. intentional propositions, such as this modal proposition 'All horses can whinny (hinnibilis)'; further, propositions in which a mental act is indicated, e.g. 'John promises Peter a horse'; and propositions that contain predicates of second intention in which something is said about terms of a lower level, e.g. 'Dog is a concept-species' (i.e. a logical notion), or 'Dog is a monosyllabic' or 'a monosyllabic word'.

The signification of a proposition such as 'Socrates is white' (e.g. when Socrates stands before the utterer of the proposition) seems to be evident. Its signification apparently is determined by the signification of the term 'Socrates'. The signification of this term is the individual Socrates. In determining the signification of a proposition, the signification of the constituent terms are thought to play a pivotal part, at least according to the medievals.

But things are more complicated. What exactly is the signification of e.g. 'All horses can whinny'? Is it the same property of all horses in the world? An act emerging from the inner nature of horses? What ontology is implied here? Propositions with verbs denoting intentional attitudes, such as 'to promise' in 'I promise you a horse', complicate matters even further.

The problems involved for the medievals in the two propositions mentioned above ('Dog' is a concept-species', and 'Dog' is a monosyllabic'), in contradistinction to a proposition such as 'A dog is white'. bring us to the subject of this paper. The intricacies become clearer when we use Latin formulations.

Let us consider three propositions in which 'homo' is the subject term: 1) 'homo currit' ('a man is running'); 2) 'homo est species' ('man is a concept-species'); 3) 'homo est vox bisyllaba' ('man is a bisyllabic word'). It is clear, I think, that in the first proposition the term

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3 I use here the term 'signification', to underscore that, in my view, the medieval semantics is primarily a theory of signs. Therefore I have avoided the term 'meaning', which, according to some modern authors, bears other associations. See I. Hacking, Why Does Language Matter to Philosophy? (Cambridge 1975). esp. chapter 1.

4 I.e. higher level predicates, e.g. logical notions such as 'genus', 'species' etc.

'homo' refers to a man in reality. This reference of the term is a 'property' (proprietas termini) of the term in the proposition, which fourteenth-century logicians called, in this case, suppositio personalis. In the other two propositions the term 'homo' does not refer to extra-mental thing(s), but, respectively, (2) to a concept-species (the medievals often called this suppositio simplex, i.e. reference to the concept belonging to the term as such), and (3) to the word itself, or to other instances of the same word 'homo'. Especially from the thirteenth century onwards the medievals called the latter property suppositio materialis. One could say that in the first case the term 'homo' (universally quantified) could be part of sciences that describe reality; in the second case it could be part of logic, in which higher-level terms are studied (i.e. terms that refer to other terms characterizing e.g. terms like 'homo' as 'universal' or 'species'); in the third proposition the term 'homo' refers to itself, or its likes.

It is clear that the last two examples differ from the first in that the terms do not refer to something in the outside world. This first kind of signification, also called denotation, is traditionally seen as the primary form, but the other two kinds also form part of our normal intuitions, and therefore should arouse interest.

1.3. Modern philosophy

In philosophy since 1900 we see, foremost in Gottlob Frege's Grundgesetze der Arithmetik, and, somewhat later, in Alfred Tarski, a

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6 'Materialis' has nothing to do with 'person', as the medievals themselves repeatedly say: suppositio personalis is a reference to some extra mental reality (see also my note 35 below).
7 This has nothing to do with matter, so the medievals say (see also my note 35 below). It must be said, though, that suppositio materialis has to do with the matter of the word, i.e. the sound.
8 Jena 1893-1903.
9 A. Tarski, Einführung in die mathematische Logik (Göttingen 1966). 72. Id., 'Der Wahrheitsbegriff in den formalisierten Sprachen', in Studia Philosophica I (1936) [Reprinted in K. Berka and L. Kreiser (eds.), Logik-Texte (Berlin, 1973). English translation in Logic, Semantics, Metamathematics, ed. J. Woodger (Oxford, 1956).] From this translation, I quote Tarski's words: 'In generalization of this viewpoint, we should have to admit that any word may at times function as its own name; to use a terminology of medieval logic, we may say that in a case like this, the word is used in SUPPOSITIO MATERIALIS, as opposed to its use in SUPPOSITIO FOR- MALIS, that is, in its ordinary meaning.' For references, see Chr. Kann, 'Materiale Supposition und die Erwähnung von Sprachzeichen.' in Neue Realitäten, Herausforderung der Philosophie XVI. Deutscher Kongreß für Philosophie, (20-24 September 1993, TU Berlin) (Berlin 1993). Sektionsbeiträge 1), 233-238. Chr. Kann, Die Eigenschaften der Termini. Eine Untersuchung zur Perutilis Logica Alberts von Sachsen (Leiden 1994). 81. G. Sundholm, 'Tractarian Expressions and their Use in Constructive Mathematics', in Schriftenreihe der Wittgenstein-Gesellschaft Bd 20/1, Philosophie der Mathematik. Akten des 15. Internationalen Wittgenstein-Sympo-
distinction between the use of a term and the functioning of a term as name of itself, by which a term is mentioned. The distinction between 'use' and 'mention' has become standard and resembles to some extent the different kinds of signification (viz. suppositio personalis and suppositio materialis) known in the Middle Ages. W. V. O. Quine discusses the use/mention distinction and considers words in quotation. He advocates the view that in quotation a word is 'pictured', in other words, a kind of hieroglyph is made, which, as such, has no parts. On the other hand, John Searle has stated that the word 'horse' in the example 'horse' is a word of five letters, should be considered not as a name, but as a representation of the word.

Related to this is the distinction between 'language' and 'meta-language'. The meta-language seems to be a language in which to describe another language, e.g. that of science; it forms a kind of consciousness.

Historians of philosophy are aware that this fundamental distinction can be traced back to the Middle Ages.

1.4. Preliminary remarks

As a preliminary remark, it should be noticed that in modern printed texts the mentioning of terms can be expressed by quotation marks, as in "dog" is a monosyllabic word. In medieval manuscripts such marks are practically unknown; the medievals wrote e.g. 'homo est bisyllaba' or 'bisyllabum'. However, the medievals had other ways of expressing that the term as such was intended, and that they wished to say something about a term, and not use it in its referring function. They could use the neuter, e.g. 'homo est bisyllabum', or 'hoc nomen homo', or 'hoc nomen hominis' and 'hoc quod dicitur homo'. They also used the little word 'ly', or 'li', perhaps they borrowed it from the old French. 'Ly' or 'li' stems from the classical Latin 'ille' and develops into the modern French 'le'. The use of 'ly' gains an increasingly prominent place as a signum materialitatis ('mark of materiality', i.e. a mark that a term was accepted according to suppositio materialis) in fourteenth-century semantics.

It should also be noted that the medieval logicians are not very clear as to whether the had tokens or types in mind, when they spoke about

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the autonomous use of words. The status of the class of a term like 'homo' in 'homo est bisyllabum' is not clear. Editors should be very reluctant, I feel, to print sentences between quotation marks in which words apparently should be taken according to suppositio materialis. Such a way of editing obscures the problem which the medievals had to solve.

In the present contribution I shall discuss some views on suppositio materialis, of which examples are 'homo est vox bisyllaba' and 'homo est nomen'. I shall concentrate on some fourteenth-century philosophers, viz., William of Ockham (1285-1347) and the 'Ockhamist' philosophers John Buridan (±1300-shortly after 1358), Peter of Mantua (†1400) and Paul of Venice (floruit ±1400). Without being 'Ockhamists' in any strict sense, they attributed supposition to both subject and predicate terms and had a conceptualistic position on universals. By way of contrast, as Ockham did I shall discuss the view of Vincent Ferrer (-1419), whose realist semantics is totally different. I shall try to give a general outline, rather than an analysis of all aspects on the subject to be found in the individual philosophers.

The principal questions in my paper are the following: How did the medieval semanticists indicate the autonomous use of words? Does the subject term in such a proposition express a linguistic item (itself, or its likes) because of the determination by the predicate? Or is it dependent on the will or intention of man, the voluntas utentium, as Ockham calls it? Or is it a convention that determines the use of terms? Is a signum materialitatis (a sign, or mark, indicating material supposition) necessary? To what extent do the Medievals distinguish the autonomous use of language from other uses? Or is this kind of language meaningless?

There is hardly any secondary literature on this subject.

II. Suppositio materialis

II.1. Until the thirteenth century

St. Augustine (354-420) distinguishes in his De Dialectica between

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14 The latter example is problematic, however. See below, § II.4.1.
verbum (here 'word') and dictio ('word with meaning', in later centuries called dicibile). Here, I confine myself to these two aspects. St. Augustine can be said to distinguish between a reflexive and referential use. We find in an elementary form the distinction between mention and use. The verbum-aspect of language means that a word as such is considered, though, of course, it is a sign. The dictio-aspect is when the attention of the hearer is directed to the thing, or things, in the outside world.

In his Dialectica Peter Abaelard (1092-1142) criticizes some previous logicians, e.g. Garlandus Componista (11th century). Garlandus drew a sharp distinction between, on the one hand, propositions having what he called *termini consignificantes* ('consignificant terms'), i.e. in which the two terms signify the same thing (they 'con-signify', in a special interpretation of the term), and, on the other, propositions in which the attention ('attentio') from a subject term goes over to another concept (what he calls grammatica transitiva), e.g. in 'homo est nomen'. So he recognized a distinction that later became that between 'suppositio personalis' and 'suppositio materialis', the referential and autonomous use of terms respectively.

Abaelard, however, argues that there is in both cases 'intransitive copulation' or 'consignification' In his view, a proposition with a term having what is later called suppositio personalis does not differ in kind from a proposition with a term in suppositio materialis. He seems implicitly to use the frequently mentioned Boethian rule *Talia sunt subjecta qualia permittuntur per predicata* ('Subjects are of such sorts as the predicates may have allowed'). This rule also played an important part in the discussions of suppositio materialis.

The anonymous author of the Fallacie Parvipontane (12th century) refers the autonomous use of terms, e.g. 'magister est nomen', to grammar: he calls it *transsumptio grammaticorum* ('a metaphor of grammarians').

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19 This rule is usually traced back to Boethius. Sherwood already notes that Boethius's rule is different, viz. *Talia sunt predicata qualia permiserint subiecta*. Boethius means that a predicate such as 'sapiens' has a different meaning when said of God that it has when said of men. In this form the rule is to be found in Boethius, *De Trinitate IV*, PL 64, 1252 A-B, as de Rijk's investigations showed (L. M. de Rijk, *Logica Modernorum: A Contribution to the History of Early Terminist Logic* (Assen 1967). Vol. II, part I, 561, n. 4).

II.2. The thirteenth century

William of Sherwood (±1200/10-1266/72; he studied in Oxford and Paris, and was active as a master in Oxford) wrote a very interesting and well organized handbook of logic, the *Introductions ad logicam*. This work is as remarkable as the well known *Tractatus* of Peter of Spain, whom I shall not discuss here, as he is less interesting than Sherwood for our purposes.21

Sherwood divides supposition into two sorts, material and formal.22 Formal supposition occurs when a term 'supposits what it signifies' ("supponit suum significatum"), as Sherwood expresses it.23 He subdivides formal supposition into simple and personal: it is simple when a word supposits what it supposits for what it signifies (e.g. 'homo est species'); it is personal when a word supposits what it signifies for a thing that is subordinate to what it signifies, e.g. in 'Socrates currit'.24 In material supposition a word stands for a sound as such, or for the sound and its significance. So he subdivides material supposition, and distinguishes between the cases of 'homo' in 'homo est bisyllabum', where the term stand for a sound as such, and of 'homo' in 'homo est nomen', where the term stands for the sound and its significate.

In his *Introductiones* Sherwood answers to an objection raised on occasion of his subdivision of supposition into material and formal.25 An opponent says that this subdivision implies different ways, not of supposition but of signification, because signification is a presentation of the form of something to the understanding. Now, when a word has material supposition, the opponent continues, it presents either itself or its utterance; however, in formal supposition it presents what it signifies. So the opponent, I conclude, considers the two kinds of signification as equivocal, because in formal supposition, it presents something different from what it signifies in material supposition (which is a more attractive view, I think).

Sherwood's solution to the problem is instructive as a background for fourteenth-century views. He says that a word considered in itself (quantum de se est) always presents its signification, not only in formal

21 The works seems to have been composed independently of each other, as the investigations of De Rijk have shown (L.M. de Rijk, 'Introduction', in Petrus Hispanus: *Tractatus, VII-CXXI*). See also William of Sherwood, *Introductions in Logicae. Einführung in die Logik*, Textkritisch herausgegeben, übersetzt, eingeleitet und mit Anmerkungen versehen von H. Brands und Chr. Kann. Lateinisch-Deutsch (Hamburg 1994). XIII.
22 Ed. H. Brandts and Chr. Kann, 136, 39-44. See also my note 9, the quotation from Tarski.
23 Ed. H. Brandts and Chr. Kann, 136, 1. 43-44.
but also in material supposition. And when it stands for its utterance, this is the result of the adjunction of the predicate, for some predicates tend to be related to the utterance or word, and others to the significate. This does not produce, however, a different signification. A word has signification before it enters into a proposition. Signification and supposition are different. So, according to Sherwood, the two kinds of supposition are not equivocal.

Somewhat later Sherwood discusses the nature of the relationship between subject and predicates. Because a predicate is said to be in a subject, a form is always predicated. Now, a subject sometimes signifies its form absolutely, Sherwood says, and sometimes not, according to the requirements of the predicate in virtue of the principle: *talia sunt subiecta qualia permiserint predicata.* In Sherwood's approach the comparison between subject and predicate is pivotal, and is based on the Boethian rule.

Christensen's suggestion is interesting in this respect. When we say something about a word, we do not form a name of it, but produce it itself. For example when we say 'Boston is disyllabic', the word 'Boston' is not used autonomously, so it is not an ambiguous name with respect to the same name in its referring function, but in both functions, i.e. both as referring and as autonomous, they are actual and direct productions of the objects themselves, about something true is stated. So Christensen says that the word 'Boston' is actualised in object-language, not in meta-language. We may conclude that in his view there is a difference not between use and mention of a word but between different usages of a word, depending on the predicate.

The problem in Sherwood's solution is, I think, that always a form is signified. We might agree that to appreciate e.g. 'homo est nomen', one has to know what 'homo' means, and, following Sherwood's realism, to what nature 'homo' refers. However, when saying 'homo est bisyllabum', or 'blituri est trisyllabum' there seems to be no form. So these propositions do not have a place in Sherwood's semantics, I think.

II.3. The fourteenth century
II.3.1. William of Ockham

William of Ockham (1285-1347) was active in Oxford and Paris. His

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26 Ed. H. Brandt and Chr. Kann. 144, 165-175.
28 W. Kneale and M. Kneale, *The Development of Logic* (Oxford 1962). 254 find William's reply unsatisfactory, for when in speech or writing we say that 'homo' is a noun, we are not using the word 'homo' in the ordinary way at all. But this criticism goes a bit too far, as I explain in the text above.
significance lies principally in his rejection of the ontological and epistemological realism of earlier masters, which he replaced by epistemological conceptualism. According to Ockham, a term, in whatever proposition, always can have personal supposition. One can, however, take a term differently, if it is limited (arctatio) to another supposition on the basis of the will of the speaker.\textsuperscript{29} So the person matters who intentionally frames a proposition. A term can have material supposition only if it is compared with another term, which is an intentio anime, or signifies a spoken or written word. It can have simple supposition, i.e. in 'homo est species'. This is impossible in e.g. 'homo currit', Ockham says, but it is possible in e.g. 'homo est species', because species signifies an intentional being.\textsuperscript{30} So Ockham implicitly uses the principle talia sunt subiecta etc., though secondarily.

According to Ockham supposition is subdivided into personal, simple, and material.\textsuperscript{31} A term having personal supposition can refer to 1) a thing in the outer world, 2) a word, 3) a concept, 4) a written sign. E.g. 1) 'Every man is an animal'; 2) 'Every vocal noun is a part of speech', 3) 'Every species is an universal'; 4) 'Every written word is a word'. 'Homo' in 'Homo est nomen' does not have material supposition by definition, but it has personal supposition when 'homo' refers to the noun 'homo' as a quality, i.e. as a real accident of the mind, having 'subjective' existence, as Ockham calls it, i.e. as far as it is a kind of reality inhering in the soul. The difference depends on the way the term is accepted.

Material supposition is, according to Ockham, non-significative.\textsuperscript{32} Here he disagrees with Sherwood, among others. In material supposition, the term stands for a word or a written sign (itself, or its likes). Quite interestingly, Ockham's example is 'homo est nomen' in which 'homo' supposits for itself, and still does not signify itself. All these kinds of supposition apply not only to spoken and written terms, but also to mental terms (mental terms, too, can have material supposition, according to Ockham this point of view does not pass without discussion in the Middle Ages.\textsuperscript{33})

In Ockham, only language in personal supposition is meaningful in the strict sense. There is some pressure, I think, for him to accept only personal supposition in mental language.\textsuperscript{34} The terms 'personal', 'material', and 'simple', are used equivocally in logic and in the other

\textsuperscript{29} 'ex voluntate utientium': \textit{Summa logicae I}, 65, 197, l. 7.
\textsuperscript{30} \textit{Summa logicae I}, 65.
\textsuperscript{31} \textit{Summa logicae I}, 64.
\textsuperscript{32} \textit{Summa logicae I}, 1, 64, l. 38-40: Suppositio materialis est quando terminus non supponit significative, sed supponit vel pro voce vel pro scripto.
\textsuperscript{33} See below, II,4,2.
\textsuperscript{34} See also P. V. Spade, 'Ockham's Rule of Supposition: Two Conflicts in His Theory', in \textit{Vivarium 12} (1974). 63-73 [Reprinted as no. IX in P. V. Spade, \textit{Lies, Language and Logic in the Late Middle Ages} (London 1988)].
sciences, he says. Logicians apply to all these terms the term 'suppositio', Ockham adds.

So 'homo' in 'Homo est nomen' can be taken in different ways, viz. according to material and according to personal supposition. This is decided not by the predicate, which is the same in both cases, but according to the way someone uses the language and according to his will and consideration of things. This 'subjective' aspect is primary, I feel.

II.3.2. John Buridan

In his *Summulae*, tract IV, which is on supposition and signification, John Buridan (active in Paris, and influential in France and central Europe; he lived ±1300–shortly after 1358) divides supposition into material and personal. He notes that some philosophers have introduces a third category, which they call 'simple supposition'. Some of those logicians opine that in that case the term refers to general natures, such as Plato's ideas. This opinion has already been refuted by Aristotle, Buridan says. Others define simple supposition as a term standing for a concept according to which it has received imposition. They define material supposition as a term standing for itself or its like. Buridan thinks these views to be acceptable. He does not flatly reject simple supposition, but he is not interested in the distinction, because the terms are taken non-significatively. Therefore, he calls both properties of a term 'material supposition' as opposed to personal.

Spoken and written terms can be species and genera, but they are not universals in a strict sense. The latter are mental concepts. So a spoken or written term (in short: a conventional term), which is in the focus of his interest, can have material supposition. In that kind of supposition, a word stands not only for itself but also for another such word or its like. Complex expressions too can also have material supposition, e.g. when such a complex functions as subject in a proposition. E.g. in 'Hominem esse lapidem est falsum', the accusative and infinitive construction stands for the indicative proposition 'Homo est lapis'. Unlike Ockham, Buridan does not attribute great importance to the relation between spoken and written language on the one hand, and mental

35 *Summa logicae*, Opera Philosophica. I (St. Bonaventure 1974), 64, 197, l. 60-65: Est autem sciendum quod non dicitur suppositio 'personalis' quia supponit pro persona, nec 'simplex' quia supponit pro simplici, nec 'materialis' quia supponit pro materia, sed propter causas dictas. Et ideo isti termini 'materiale', 'personale', 'simplex' aequivoce usitantur in logica et in alii scientiis; tamen in logica non usitantur frequenter nisi cum isti addito 'suppositio'.

36 Buridan first divides supposition into proper and improper. An example of the latter is 'pratum ridet', or 'homo est asinus'.