Claude Panaccio UQÀM

One of the main tenets of my book *Le discours intérieur. De Platon à Guillaume d'Ockham* (Panaccio 1999a) was that strictly speaking, the idea of mental language originated with William of Ockham in the late 1310s and early 1320s. Theologians of the previous centuries had long been speaking of the mental word (*verbum mentis*) on the heels of Augustine's *De Trinitate*, but what they were interested in was the internal engendering of human thought as a model for understanding the generation of the Son in God. Ockham and his followers, by contrast, primarily aimed at accounting for *mental predication*, by developing a detailed theory of the semantic composition of propositional thoughts. The Latin Aristotelian tradition, of course, had always acknowledged that there is some logical structure to what goes on in the intellectual part of the human mind, and many authors, from Boethius to Thomas Aquinas and Roger Bacon, had alluded to some sort or other of structured internal discourse (*oratio in mente* or *in intellectul*), but my contention is that never before Ockham had a semantical theory of the language of thought been elaborated in any details.¹

To get the point, it is especially interesting to compare Ockham on this with his great nominalist predecessor Peter Abelard, two centuries before. In a recent paper, indeed, Peter King claims that "Abelard was the author of the first full-fledged theory of mental language in the Middle Ages" (King 2007, p. 169), a view King explicates in the following way:

¹ The same thesis is succinctly put forward in Panaccio 1992b.

ANA LYTICA volume 14 número 2

2010

Unlike his predecessors Augustine and Anselm, Abelard was not concerned to explore the theological dimension of the mental Word. Instead, Abelard crafted a 'language of thought' to provide the semantics for ordinary languages, based on the idea that thoughts have linguistic character. His is the most sophisticated account of mental language until the efforts of Burleigh, Ockham, Buridan, and others at the start of the fourteenth century. Yet unlike these later versions, Abelard's theory of mental language has not received the attention it deserves. (King 2007, p. 169).

And King pertinently remarks in a footnote that "Abelard is mentioned only in passing by Claude Panaccio in his *Le discours intérieur.*" (*ibid.*).

Now it is true that I did not give Abelard the elaborate treatment he deserves in the context of a general history of the idea of mental discourse in the Middle Ages, and King's paper certainly is a welcome addition to scholarship in this regard. Actually, I have been told quite a few times that I did not pay enough attention to twelfth century as a whole.² To which my sole defense is that *Le discours intérieur* was not meant to be a *complete* history of the idea of mental discourse from Plato to Ockham. As I wrote in the Preface, I was merely hoping that the work I had done would seem sufficiently fruitful that others would care to fill up its lacuna. And twelfth century, I must admit, was indeed such a lacuna in the book.³

This being said, however, I still have strong reservations about King's claim that Abelard had a "full-fledged theory of mental language". A lot depends, obviously, on what we take a 'full-fledged theory of mental language' to be, and I don't want to engage in a merely termino-logical debate. What is interesting, I think, is to point out the very significant differences that exist between Abelard and Ockham on mental language, and to explain in what sense exactly I take Ockham to be the originator of the theory.

There are two aspects in Ockham's approach to mental language that I take to be salient and revolutionary. The first is the transposition of the grammatical and semantical terminolo-

184

² This complaint has been voiced to me by Irène Rosier-Catach in particular.

³ For a recent and richly documented study on the idea of mental word in twelfth century, see Valente 2009. On the other hand, a recent volume on mental language in medieval and early modern thought edited by Biard (2009) contains nothing on either Abelard or post-Abelardian twelfth century.

gies of his time to the analysis of internal thought. Ockham held that there are not only nouns and verbs in the underlying natural language of thought — which already was an innovation: previous writers used to talk about nouns and verbs in connection with conventional languages only — but also adverbs, prepositions, conjunctions, and maybe pronouns.⁴ And even more importantly, he systematically applied to mental language the vocabulary of the 'properties of terms' — *signification, connotation, supposition* and so on — which had become central in the 'terminist logic' of the previous two centuries for the analysis of external speech.

The second distinctive feature of the Ockhamistic theory of mental language was that it provided a compositional account of the semantical properties of predicative mental propositions — their truth-conditions in particular — on the basis of the referential properties of their subject and predicate terms. The main tool for this was the theory of 'supposition' (*suppositio*), which gave rules governing the referential functions of terms when they occur as subjects or predicates of propositions: depending on the propositional context, it was acknowledged that a given term can sometimes stand for itself as a word or as a concept (e.g. in *'horse* has five letters' or *'horse* is a natural kind concept'), while most of the time it would stand for its singular significates (e.g. 'horse' for horses, or 'white' for white things), and that it would normally stand, in the latter case, for only some of its significates (in 'horses are sensitive animals', for example, the term 'horse', according to Ockham, stands only for presently existing horses, because the present tense verb so'restricts' it, and similar rules are given for propositions with past or future tense verbs).⁵ Not only did Ockham innovatively applied the terminology of supposition theory to the analysis of mental language, as I indicated above, but he used it, most saliently, to implement in his theory of thought what we call today a *principle of compositionality*.

The principle of compositionality in semantics says that the semantical properties of complex items usually are a function somehow of the semantical properties of their simpler components. This is precisely what we have in Ockham's theory of mental language. One starts with the natural signification of simple concepts (the concept 'horse', for example, naturally signifies

volume 14 número 2 2010

⁴ See Ockham 1974, I, 3, pp. 11-14, where the grammar of mental language is compared with that of spoken and written languages.

⁵ Ockham's theory of supposition is detailed in Ockham 1974, I, 63-77, pp. 193-238. For a short presentation see Panaccio 1999b.

volume 14 número 2 2010 all singular horses) and moves from there, thanks to supposition theory, to their precise referential functions when they occur as subjects or predicates of mental propositions, and then to the truth conditions of predicative mental propositions: a universal affirmative proposition such as 'all horses are mammals' is true if and only if its predicate term stands for everything that its subject term stands for, and so on *mutatis mutandis* for other kinds of propositions.⁶

Such are the two features, then, which prompt me to hold, *pace* Peter King, that the 'full-fledged' semantical theory of mental language starts with Ockham: the grammaticalization of thought on the one hand, and a compositional approach to the truth-conditions of mental propositions on the other hand. What do we find in Abelard with respect to these two points?

First, Abelard does *not* systematically transpose grammatical and semantical categories to the analysis of thought. In the part of his *Logica ingredientibus* which is dedicated to Aristotle's *Peri hermeneias*, for example, Abelard has a detailed discussion of nouns and verbs, with incidental considerations on other parts of speech such as adverbs, conjunctions and so on.⁷ At no point in this whole development, though, does he apply these grammatical denominations to anything but spoken and written words. Nouns and verbs, all along, are taken to be merely conventional linguistic units (see. e.g. Abelard forthcoming, 3.02.1-2 and 3.02.34-35), they are never included among concepts themselves. Abelard on this simply follows Aristotle: for him as for the Stagyrite, there are no nouns and verbs among concepts, let alone adverbs, conjunctions and propositions.

What about semantical categories? It is certainly true, as Peter King insisted in a discussion we had in Toronto in September 2009, that Abelard coined an elaborate semantical terminology. Supposition theory as such was developed only later, but Abelard, for one thing, crucially distinguished between *significatio* and *nominatio*, a distinction which is close enough, as King remarked, to the thirteenth and fourteenth century distinction between *significatio* and *suppositio*. My point, however, is that this terminology in Abelard occurs in the context of a semantical theory of spoken and written discourse, and not directly in the theory of thought. Here

⁶ For Ockham's theory of truth-conditions, see Ockham 1974, II, 2-20, pp. 249-317. I submitted a rational reconstruction of how his compositional semantics works in Panaccio 1992a, chap. 1, pp. 23-67.



186

is a typical passage where Abelard introduces the distinction: "Nouns and verbs", he writes, "have a twofold signification, one of understandings [this is the *significatio* proper] and the other of things [this is the *nominatio*]" (Abelard forthcoming, 3.00.4; transl. in King 2007, p. 174). King rightly calls this a "breakthrough distinction", which interestingly foreshadows the modern one between sense and reference (*ibid*.).

Significatio and *nominatio*, however, clearly are properties of spoken and written terms for Abelard, not properties of concepts themselves. The very distinction, actually, is framed in such a way that it *cannot* directly be transposed to concepts: nouns and verbs — which are spoken or written units in Abelard, as we previously saw — are said to signify concepts (or understandings) and to name things. The English word 'horse', for example, signifies the concept *horse* in this view, while naming the real extramental horses. Clearly, there could not be a corresponding distinction for concepts themselves. We could not say that any given concept signifies a concept! So what could concepts signify? There is no answer to this in Abelard, precisely because the distinction between *significatio* and *nominatio* is introduced by him *only* for the semantical analysis of spoken and written conventional languages, not for the analysis of thought.

One could say: well, concepts don't have *significatio* proper, they have only *nominatio* and this is already something. But Abelard himself says nothing of the sort. And that would amount, anyway, to no more than saying that concepts represent things, which is not much of a theory for mental language. It is what Aristotle says in the *De interpretatione*, nothing more.

In short, we do not find in Abelard the first feature of a distinctively semantical approach to mental language: the systematic transposition of the grammatical and semantical categories to the study of thought itself.

What about the second feature: the use of supposition theory to implement a strong principle of compositionality in the analysis of inner thought? Everybody agrees, of course, that Abelard did not know supposition theory as such, since it was devised some decades later (largely under his influence, no doubt). Yet one might be tempted to say that even if Abelard does not have supposition theory proper, he does apply a principle of compositionality to the analysis of thought. This is indeed what Peter King claims: "According to Abelard", King writes, "Mental Language generally obeys a principle of compositionality, so that the meaning of a whole is a function of the meaning of its parts" (King 2007, p. 170).

volume 14 número 2 2010

ANA YTICA

volume 14 número 2 2010 The following passage from the *Logica ingredientibus*, in particular, is taken by King to be a formulation of the principle of compositionality for inner thought: "Just as a sentence materially consists in a noun and verb, so too the understanding of it is put together from the understandings of its parts" (Abelard forthcoming, 3.00.8; transl. in King 2007, p. 176). The relevant process is described a bit more explicitly in Abelard's *Treatise on Intellections*:

Someone who hears [the sentence "Man walks"] proceeds by collecting the appropriate understandings from each of the words: first by understanding *man* when he hears "man" (which is instituted to signify it); thereafter by understanding *walking* when he hears "walks"; finally connecting it to *man* (Abelard 1994, §32; transl. in King 2007, p. 176).

So we do have here the idea that the understanding of a sentence results from the understandings of its parts. As King ably writes," the understanding of a complex may generally be treated as a complex of understandings" (King 2007, p. 177).

All this, of course, is extremely interesting and relevant. A first thing to note, however, is that it is only presented by Abelard in these particular passages as a description of the understanding of a spoken sentence, not directly as a theory of thought: it is what happens when someone *hears* the spoken sentence'Man walks', not when he or she directly thinks something without being orally addressed by interlocutors. Yet other passages are quite explicit, admittedly, that the intellect combines simple mental units with each other when it entertains affirmative or negative thoughts, e.g. the following:

Someone who thinks that Socrates is a philosopher combines by his intellect philosophy and Socrates [...] while someone who thinks that Socrates is not a philosopher separates and divides in his intellect philosophy from Socrates [...] (Abelard forthcoming, 3.01.126; my transl.).

188

The main point, however, is elsewhere. What the compositionality principle, as usually understood, says is that the semantical properties of complex items are a *function* of the semantical properties of their simpler components (just as King words it himself). As far as I can see,

nothing in Abelard gives us any clue as to *how* to get from the semantical properties of simple concepts to the semantical properties of mental propositions. He simply states that when a thinking subject is faced with a spoken or written sentence, he or she assembles somehow the meanings of the simpler components in order to understand the sentence as a whole. This is already something, no doubt, but we are left in the end with no theory at all about how it is supposed to work exactly. All we have is that a combination occurs somehow in the mind of the hearer. I would call this *a combinational approach* to intellectual thought, rather than a truly compositional theory of mental language.

Compare this with what we have when supposition theory enters the picture and is directly applied to the language of thought, as in Ockham. First, simple concepts are said to have a natural non contextual signification, and in some cases a connotation as well: a token of the concept *horse* in a given mind, for instance, naturally signifies horses, a token of the concept *white* naturally signifies white things and connotes their (singular) whitenesses, and so on. When concepts are combined into mental propositions, they acquire a contextualized referential function: supposition precisely. What the concept will then stand for in a given proposition, and under what mode, is determined by a number of factors: the prior non contextual signification of the concept is usually one of them; but the propositional context also plays a decisive role: Is this concept the subject or the predicate of the mental proposition? What syncategorematic terms are connected to it? (Is there a negation around, for instance, and what quantifiers do we have?). Is there a metalinguistic concept around or not? The referential function of a concept within a mental proposition, therefore, will vary according not only to its prior signification, as was suggested by the simple combinational approach of Abelard, but is determined in addition by all these various contextual factors, each one having a precise role to play.

With respect to the prior signification of the concept, its contextual referential function might be restricted, for example, by the tense of the verb, or it might be ampliated to mere *possibilia* by the presence of a modal term such as 'possible', or it might be shifted (instead of standing for any of its significates, the concept *horse*, for example, could stand for itself — this is what Ockham calls'simple supposition'— if it faces a second-order predicate such as 'species', 'genus' or 'concept'). Moreover, the *modes* of supposition of a given concept will also vary according to the logical form of the proposition and to the exact place of this concept in it. Several modes of supposition were thus distinguished: determinate, distributive, confused; and each

ANA volume 14 número 2 2010

volume 14 número 2 2010

one of them was taken to have distinctive effects on the truth-conditions of the whole proposition: the concept *horse* stands for the same individual horses in 'All horses are mammals' and 'Some horses are white', for example, but under different modes: it allows for a 'descent' to any corresponding singular proposition in the former case (all horses are mammals, therefore this horse is a mammal) but not in the latter, while it allows for an 'ascent' from any corresponding singular proposition in the latter case (this horse is white, therefore some horse is white), but not in the former.

Even with the natural signification of the concept remaining constant, the truth-conditions of the mental propositions it occurs in thus vary according to what exactly the concept stands for in this context, and according to how (under what mode) it stands for whatever it is that it stands for.'All horses are white' and 'Some horses are white' do not have the same truthconditions even though their categorematic components are the same, because the term'horse' has a different mode of supposition in the one and in the other. Ockham's semantics for mental language can be said to be truly *compositional* insofar as it provides rules to get from the non contextual signification of simple concepts to the truth-conditions of predicative mental propositions by way of supposition theory.

Abelard, admittedly, was very much aware that there are contextual semantical variations for any given categorematic item in a language. This is the very basis of his celebrated *Sic et non*, which is largely dedicated to showing that apparently incompatible statements of the religious authorities can very well be consistent with each other, if such contextual variations are taken into account (Abelard 1976). He certainly had the notion of a contextual semantical shift — the *translatio* or *transumptio* —, of which he keenly identified quite a number of varieties, and he did have an ear for these special self-referential uses of words that later logicians saw as cases of material or simple supposition, such as 'man' in 'Man is a word' (see e.g Abelard forthcoming, 3.02.13 and 3.02.61-62). This is something that the French scholar Jean Jolivet has rightly insisted upon (especially in Jolivet 1969). Yet, for one thing, as I said before, the theory of nomination and semantical transfer (*transumptio*) was developed by Abelard as a theory of spoken and written language, and not directly as a theory of mental propositions. And for another thing, he never identified precise semantical rules that could lead from the signification of the basic units of any given language to the truth-conditions of propositions about the prior signification of the

190

basic units with considerations about the truth or falsehood of complex propositional items. In Ockham, most saliently, this was explicitly presented as a theory of mental language.

It is true that supposition theory was developed largely under the influence of Abelard, via his 'nominalist' followers of the second half of the twelfth century. I certainly do not want to minimize Abelard's role in the history of semantics. He is a huge figure, by all counts. Still, two facts remain:

(1) Abelard did not have an elaborate theory of supposition yet and he was not in a position to produce a truly compositional semantical theory, not even for elementary predicative sentences of conventional languages;

(2) Whatever semantical tools he had — *nominatio* and *transumptio* in particular —, he never systematically used them for the analysis of inner thought.

The transposition of the grammatical and semantical apparatus to the study of the language of thought did not occur before the early fourteenth century, when it came to constitute a major part of Ockham's program. And it is this transposition — that of supposition theory in particular — which allowed Ockham to devise a detailed compositional theory of mental language, rather than a mere combinational approach.

All along the fourteenth, fifteenth and early sixteenth centuries, as it happens, the idea of mental language remained closely connected among its proponents with the use of supposition theory for the analysis of inner thought.⁸ Several hypotheses have been put forward in order to account for the fact that the idea of mental language, which was central to the philosophy of mind for two centuries on the heels of Ockham, became marginal at best by the time of Descartes and Locke (see Panaccio 2003, Normore 2009). What I would like to suggest is that the main factor in the demise of mental language probably was the decline of supposition theory, just as supposition theory was the single most important component of Ockham's approach to mental language and of that of his late medieval successors. My claim, then, is the following: the full-fledged theory of mental language in the Middle Ages is intimately connected with the use of supposition theory for the fine-grained analysis of human thought. This started with William of Ockham in the early fourteenth century, and it ended when supposition theory became obsolete somewhere around the middle of the sixteenth century.

ANA volume 14 número 2 2010

⁸ I have documented the point in Panaccio (forthcoming).

ANALYTICA

volume 14 número 2 2010

RESUMO

Uma das principais teses de meu livro Le discours intérieur. De Platon à Guillaume d'Ockham era a de que, estritamente falando, a ideia de linguagem mental tinha origem com Guilherme de Ockham, entre o fim da segunda e o início da terceira década do século XIV. Em um artigo recente, no entanto, Peter King defende que "Abelardo foi o autor da primeira teoria plenamente desenvolvida da linguagem mental na Idade Media". Neste artigo gostaria de responder à afirmação de King, e de indicar as diferenças extremamente significantes que há entre as posições de Abelardo e de Ockham sobre a linguagem mental.

Palavras-chave: Pedro Abelardo, Guilherme de Ockham, linguagem mental, teoria da suposição, semântica composicional.

ABSTRACT

One of the main tenets of my book Le discours intérieur. De Platon à Guillaume d'Ockham was that strictly speaking, the idea of mental language originated with William of Ockham in the late 1310s and early 1320s. In a recent paper, however, Peter King claims that "Abelard was the author of the first full-fledged theory of mental language in the Middle Ages". In this paper I would like to reply to King's claim, and to point out the very significant differences that exist between Abelard and Ockham on mental language.

Keywords: Peter Abelard, William of Ockham, mental language, theory of supposition, compositional semantics.

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2010

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