

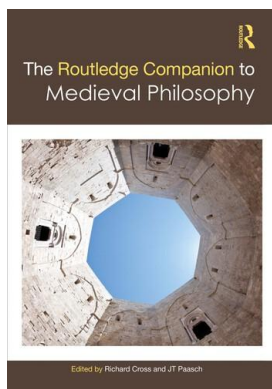
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MENTAL LANGUAGE

Joël Biard

The idea that thought is like a dialogue of the soul with itself dates back to Plato.¹ But talking about mental language in the strict sense implies the fact that the field of intellections or concepts is made of meaningful units carrying semantic properties and being articulated in a certain syntactical structure. Such an approach goes beyond the idea of talking with oneself; it is neither, strictly speaking, that of Aristotle, in his fundamental works on which medieval logic and semantics were built, even more so in his psychology. At the beginning of the treatise *Peri Hermeneias*, Aristotle presents oral expressions as the symbols or signs of the affections of the soul, which are images of things. Aristotle studies the relationship between these affections and these things in the *De Anima*. In this treatise, Book III offers a theory on the intellect and its acts, on the intelligible and its relation to the sensible without any mention of language. However, from Boethius, the beginning of *Peri Hermeneias* becomes the subject of various interpretations that tend to give psychological affections (*passiones animae*) the status of a sign. This opens the door to the idea that one could perhaps deal with the mental field as a language, but in itself it is not sufficient.

This approach is neither that of Augustine, though he is a constantly cited authority. Augustine develops a whole theory of the “interior word” or “word of the heart” (*verbum mentis*), in connection with his investigation on the Trinity in which the second person is named the Word. But Augustine’s interior word is not strictly speaking a language: it is to a greater extent what makes the language meaningful, but it is not really structured as a linguistic composition.

The full notion of mental language was developed at the end of a long genealogy which reworked all these elements. In antiquity, there was much interest in the composition of mental acts. The Middle Ages witnessed many debates about concepts and their status as sign or signified. In the thirteenth century, the notion of a mental word was strongly embedded in reflections on language and knowledge. However, the theory of mental language in the strict sense is fully developed only in the fourteenth century, especially with William of Ockham. Mental language then comes to the forefront of logic, as it becomes the language *par excellence*, the one that is used to assess the meaning and truth value of spoken expressions. The theory of mental language then left a deep mark on late medieval semantics, even though, from its very beginnings, it provoked questions and discussion.

The history of mental language has been studied in detail by Claude Panaccio in various articles, and especially in his book *Le Discours intérieur*.² In 2005, a symposium on the history of this theory and its various components was organized by the European Science Foundation,³ in Tours, France. Many articles and an in-depth study by Martin Lenz⁴ have been written on Ockham’s theory. The process that leads to the theory of mental language is fairly well studied, as are a certain

number of theoretical issues linked to it: the structure of the language, the respective status of mental and spoken language, universality, and so on. Its developments throughout the fifteenth and sixteenth centuries are less well known, despite E. J. Ashworth's pioneering studies.⁵

From the Word to the Language

When William of Ockham evokes mental language at the beginning of his *Summa logicae*, he associates the “conceived terms”—mental elements of a mental proposition—with the mental words mentioned by Augustine in Books 9 and 15 of *On the Trinity*.⁶ However, there are significant differences between the Augustinian doctrine of the word and Ockham's theory of mental terms. Augustine in the fifth century re-uses the common distinction shared by all Greek schools of philosophy⁷ between uttered speech (*logos prophorikos*) and internal speech (*logos endiathetos*). He embraces this distinction by giving it both a theological foundation and a key role in his theory of language.

Augustine develops the theory of the interior word or word of the heart through an analysis of the human mind as the image and likeness of God. The study of the interior word shows us, “as in an enigma,” the Word of God. The main point of this doctrine is that the word remains immanent, just as the divine Word (with which God creates) does not depart from God.⁸ The inner word is prior to any exterior, uttered word; and it does not belong to any language (*nullius linguae*): it is unique for all men, universal, and not subjected to linguistic variation.

This word can even exist without being externalized.⁹ It is thus equated with thought (*cogitatio*), but thought is understood by Augustine through a dual model: on the one hand, the words, and on the other, the vision.¹⁰ When they are external to the mind, speech and vision are different, but in the mind, they tend to merge. Thus, the word of the heart is different from our uttered language, not only because it is internal, but also because the convergence between voice and vision suggests first an immediate connection and second, an act that cannot be analyzed into elements or sequences spread out over time.

The inner word must nonetheless use some “signs” to express itself. Thus, we finally find the communicative function of language, through an instrumental relationship between the interior word and of a particular exterior language. This relation applies not only to the words, but to all kinds of signs (gestures, for example). Uttered language consequently becomes a sign of the inner word, which is called a “word” first. The connection between the mental and exterior words is a relationship based on expression. And to clarify this relationship, Augustine even compares it with the incarnation by which the Word of God becomes flesh.¹¹ We have here a strong opposition between the field of exteriority—which is that of the materialization, of the extension—and the spiritual field which rather is a simple act. From this point of view, the Augustinian doctrine departs from the *logos endiathetos*, to which the ancient authors attributed some rudimentary discursive forms. This is why a debate over the possibility of decomposing a mental proposition into several elements exterior to each other, unfolding in a linear progression, will resurface in the fourteenth century. Gregory of Rimini, in the middle of that century, holds that the mental proposition itself (not the simple image of spoken language, but rather the mental utterance that is of no language) is just a simple act: it is called a proposition by an “extrinsic denomination” alone because such an utterance, caused by a simple intuitive knowledge of things, can only be expressed with the subordination of a spoken proposition.¹² This thesis generated much discussion.

Thus, even if Augustine is constantly quoted, his theory of the mental word is very different from that of William of Ockham, especially as Ockham presents it in his *Summa logicae* (1323). The fact that we can here speak of real mental language does not only come from a vague reference to the three types of propositions (written, spoken, and mental) already mentioned by Boethius, but also because of the elements of the mental proposition: they really have the status of signs, contrary

to the Augustinian word which had to “assume” a sign to express itself. Indeed, according to William of Ockham, there are three kinds of signs.¹³ The concept is not only or primarily what is meant by the spoken term; it is itself a sign. Controversy had arisen about how best to interpret the beginning of Aristotle’s *Peri hermeneias*, and William of Ockham’s reading—already proposed by Roger Bacon during the second half of the thirteenth century—adapts Aristotle’s text to this new theory of signs. According to this reading, all signs, whether written, spoken, or mental, take the singular things of the world as signifieds, while the spoken signs are “subordinated” to a conceptual sign. However, the concepts are not signs of the same nature as that of the words: these are natural signs and not conventional signs. This is why they are common to all humans.

Can we determine more precisely this natural signification found in Bacon, Ockham, or some of their successors? Two models here are competing or complementary: that of similarity and that of causality. The similarity model compares these natural signs to an image, even if it is sometimes possible to get a more elaborate conception of structural similarity. But William of Ockham puts more emphasis on the model of causality in his *Summa logicae*. In a naturalistic approach (where something must be present to generate a first psychic impression), the concept is an act of the intellect, which, as an effect, is a sign of its cause. Of course, this pattern quickly becomes more and more complex as we start to consider knowledge that cannot be reduced to the immediate apprehension of a singular thing, but it is still the basis of the whole process.

However, taking elements as signs is not enough to talk about language: they must also be linguistically organized. In their descriptions of interior language, several ancient authors had already emphasized some form of discursive thinking, but it was not language in the strict sense of the term. On the contrary, in Ockham’s theory,¹⁴ mental terms are classified according to the different “parts of speech” that Priscian had distinguished in his *Grammatical Institutions*. Not all components of discourse can be found in mental language, but the latter nonetheless includes nouns (including here both adjectives and substantives), verbs, and also pronouns, adverbs, conjunctions, and prepositions. In the same way, some “accidents” of these parts of speech are as suitable for mental language as they are for spoken language. For example, this is why nouns have in both mental and spoken languages cases, number (singular or plural), and comparison (comparative and superlative for adjectival nouns); likewise, the verb has mood, gender (that is active or passive voice), number, tense, and person. There is no strict parallelism since some of the spoken language accidents are not relevant to mental language (e.g. gender for the noun, or conjugation for the verb), but we take into account all those which contribute to determining what the terms refer to and the truth value of propositions. This is sufficient enough to organize a logical syntax, a grammatical organization of the conceptual field.

Thus organized, elements then carry semantic properties: relations of meaning, connotation, and supposition are assigned to concepts. It must be remembered that supposition is the property by which a term, in a propositional context, refers to one or more real things, according to certain modalities. Since the twelfth century, it was the main tool of semantic analysis, and many other properties were subordinated to it. Once the concepts—naturally signifying the thing (in the case of a singular concept) or similar things (in the case of a common concept) that brought them about in the mind—are articulated in sequences in accordance with the logical grammar we just mentioned, they refer to their signifieds in such and such a manner and thus create real propositions the truth of which is susceptible to evaluation. In the *Summa logicae*, it even appears that mental language is the first vehicle of meaning and truth. Since spoken signs are subordinated to mental signs, it is first the signification of the latter that must be analyzed; it is the mental structure of the statement that must be specified in order to remove any ambiguity and judge whether it is true. William of Ockham moves the whole logical conceptuality to the level of thought, whereas it had hitherto been mainly applied to spoken language.

This primacy of mental language makes it the language *par excellence*, the first language out of which we must judge all others. It finds a radical extension in some texts by Peter of Ailly. In his *Conceptus* (written in the 1370s), there is an introductory presentation of statements and signs which is close to that of William Ockham. Referring to the discussions that had appeared on the simplicity or complexity of a mental act, Peter of Ailly argues that a mental proposition can be decomposed into meaningful complex units, and that some of them truly signify some things—they are called “categorematic terms”—while others serve a dual purpose: first, they organize or structure these signifying units, and second they modify the referential capacity of the terms belonging to the first kind—they are called “syncategorematic terms.” When in the *Conceptus* Peter of Ailly classifies these elements according to the usual grammatical categories, this makes it look as if mental language is meant to have absolute primacy over spoken language. For grammatical categories do not apply to these elements in a secondary and derived way, but rather in a proper and primary way. Elements of mental language are organized according to the syntactic properties they naturally possess.¹⁵ As for the grammatical organization of spoken language, it is explicitly dependent on the organization of mental language.¹⁶

During the same period, some other treatises were written on concepts and they testify to a similar pattern: the scheme of the interior word is abandoned in favor of a description of the mental field through mainly linguistic categories.¹⁷ Indeed, the *Treatise on Concepts* by Paul of Gelria (1380s) begins with a chapter on the different cognitive powers, followed by a chapter on signs. In this context, the sign, properly natural such that it signifies by itself and not through the use of an instrument, is identified with the concept or cognition¹⁸ (*cognitio vel conceptus*). Then, there is an analysis of elementary natural signs according to the types of their terms and their ways of signifying.

From Intellection to Concept, or the Semantic Redefining of Intentionality

The third part of Aristotle’s treatise *De Anima* studies the intellect extensively. It raises the question whether the intellect is separated from the body, and it fleetingly introduces the difference between the agent intellect and the patient or possible intellect. But there is nothing which looks like some kind of “language of thought.” Psychology and noetics, which are developed in the Middle Ages on the basis of the *De Anima* and its ancient and Arabic commentaries, evolve independently from and beside the study of linguistic expressions.

From Boethius to Abelard, the elements that compose thought are designated under the term of intellection, *intellectus*. Peter Abelard begins his *On intellectibus* by distinguishing and articulating the different types of intellection in accordance with the different powers of the soul (sensation, imagination, estimation, science, and reason). He bases his work on that of Augustine and Boethius.¹⁹ Abelard does not neglect the composition of intellectual acts and seeks to determine what effect they have on the meaning of linguistic utterances, but for him it is mostly a question of logical operations such as conjunction or word division, or more complex operations such as inferences or embeddings of propositions. When it comes to the semantic status of intellections, Abelard follows Aristotle’s semiotic triangle and, whatever precisions or variations he gives in one work or another, the crucial question remains: how words refer to things (*nominatio*) while giving birth to intellections about them (*significatio*).

The dissociation of the language plan from the psychological plan was maintained under various forms. However, Thomas Aquinas made an attempt to synthesize the Aristotelian noetic and the Augustinian theory of the mental word.²⁰ Thomas develops a theory of abstraction, starting with the thing as it is given to us by the senses. This gnoseological process leads to the production of a *species intelligibilis* that informs the possible intellect. It is the result of a transfer of information

from the sensible through the external sense, common sense, and imagination; this transfer involves sensible species and phantasms. This intelligible species is not the object of knowledge, but that by which intellect knows the thing. Still, even though it results from the process of abstraction and the conversion of the intellect to phantasms, it is only the starting point of the act of intellection. The latter then involves several elements: the understood thing (the *res* or its quiddity), the intelligible species, the act of intellection itself, and the mental word.²¹ This is how Thomas Aquinas gives the *verbum mentis*, the word of the mind, a central position in several of his works. The mental word is produced (as engendered) by the act of intellection: it has intelligible being and it survives as long as the act occurs. It is that in which the thing or its quiddity is known.²² If Augustine believed that a word had to be embodied in a language, the problem here really is firstgnoseological. Thomas links this word to Aristotle and Boethius's *passiones animae*, and from a semiotic point of view, he makes the word—which can be given the synonyms of *conceptus*, *conceptio*, *ratio*, *intellectio*—the first signification of the spoken term. In this respect, it is more an object of signification than a signifying element.²³

To what extent can we consider it to be a mental language? In a broad sense, Aquinas believes that there is indeed such a thing as a mental *word* which is essential to cognitive operations, and to which is assigned a certain position in the whole semiological system. But Thomas does not really talk about a possible comparison, and even less about an assimilation, with a *language*. The only aspect that should be emphasized and which will play a role in the theory of mental language is that the mental field, considered as the first object of logic, may be subject to some operations of composition. There are simple concepts in which one captures the quiddity of things that are signified by nouns, and there are compositions and divisions signified by enunciations.²⁴ But nouns and enunciations are reserved for spoken language. For Aquinas, the composition in thought is not that of really signifying elements.

We can say that Thomas Aquinas is the one that goes the furthest in the synthesis between the word of the mind and the Aristotelian theory of the intellect. However, not only did this synthesis raise questions about his interpretation among his readers (realism or representationalism?), it was also called into question by those who believe that all that comes along with a concept, in addition to the act and its object, to be superfluous (Peter John Olivi and then William of Ockham). Regarding our topic, Aquinas's synthesis does not lead to a real theory of mental language, so that a theory of knowledge and theory of language can be kept separate.

Could there have been a theory of mental language broad enough to includegnoseology in the Middle Ages? This trend existed. From a certain point of view, Peter of Ailly goes in this direction: he tends to assimilate representation and signification so that the mental sign becomes the model of any signification, even if he maintains a distinction between various types of signs, including the distinction between the formal signification of the concept—associated with the act of conception—and the objective or instrumental signification of conventional signs which involves the position of a representative intermediary. At the same time, the notion of an interior word seems to fade. The term disappears in the logical works of John Buridan, and, more surprisingly, it is virtually absent from the *Commentary on the Sentences* by Peter of Ailly. The chapter dealing with the Word simply discusses the union between the two natures in Jesus Christ. In his *Questions on the Treatise of the Soul*, Peter of Ailly nonetheless adheres to a psychology that is completely independent of his theory of language, and he defends the existence of species, both sensible and intelligible. Thus, even in this context, the study of the soul was not reduced to the theory of mental language. Nevertheless, the analysis of representation tends to develop as a semantics of the mind. The deletion of the mental word is not a coincidence. The Word, originally linked to the metaphor of engendering, favors being described as a kind of expression, and not some kind of reference or direct designation. If these several functions can coexist, the question of what dominates and organizes the act of language persists. According to the theorist of mental language, one does not have to exteriorize what he or she carries within herself. Rather, she only

needs to provide a signifying sequence, an organized plan whose elements are subject to rules of composition and interpretation. Intentionality is then governed by semanticity.

Scope, Discussions, and Questions

The theory of mental language, as formulated in the fourteenth century, deeply influenced subsequent discussions. It extended to authors such as Albert of Saxony agreeing with William of Ockham on these issues, and Peter of Ailly who pushed to its extreme the extenuation of the spoken language to the benefit of mental language. The theory of mental language was used, despite some controversy over its internal structure, until the sixteenth century, as the studies by Jennifer Ashworth show: they discuss especially the possibility of distinguishing parts, of their mutual externality and their order; they discuss its status through the issue of the adequate significate of the proposition; etc.

It is worth noting that the theory is developed in the context of a change in the status of the object of logic. In the twelfth century, logic still has language as its object, and language is considered in terms of its truth or falsity. But generally in the fourteenth century, under the influence of Arabic treatises and at the end of a long process in which Albert the Great and Robert Kilwardby played an important role, logic takes the forms of thought as its object. Thus oriented, logical analysis implies a certain structuring of the field of thought into concepts, propositions, and arguments. This is what explains the omnipresence of the idea of “mental proposition,” even when the elements of the conceptual field are not explicitly apprehended through semiological categories, as is the case with John Buridan.

Mental language also contributes to a certain number of logical instruments or modes of analysis that had been in use since the twelfth century. An essential aspect of medieval logical analysis is the analysis of the semantic ambiguities arising from such and such use or from some particular syntactic organization. Most of the chapters of logic—obviously without being reduced to this one function—are correlated with these disambiguation procedures: theory of modes of supposition, syncategoremata, fallacies, etc. Such procedures do not necessarily imply a strong theory of mental language, but mental language can nevertheless solve verbal difficulties by only retaining phenomena considered irreducible and relevant in terms of meaning and truth. Mental language’s means of expressions are consistent with its purpose: to form propositions that can be true or false. The theory of the semantic properties of words, the distinctions such as that of the categorematic terms and syncategorematic terms, the theory of absolute terms and connotative terms—all these theories end up being first and foremost applied to mental language.

On these new bases, the theory of mental language also raises questions about the universality of logic structures, and even of certain mental contents. In antiquity, the disciples of the *logos endiathetos* had believed it to be independent from particular languages; similarly, Augustine’s mental word is derived from no language. With a real mental language however, the question is raised differently, and the thesis is much stronger. Not only is this language universal, primary, and it subordinates particular languages, but also the primacy of the conceptual sign leads to the fact that several languages’ spoken signs with the same meaning can and must be subordinated to the same concepts. Of course, practically speaking, the suggested models can depend on this or that language’s features, especially Latin, but *de jure* one can pose the existence of a totally universal language.

Finally, this theory leads to new ways of analyzing the thought and operations of knowledge. For example, the *Tractatus noticiarum* of Gervasius Waim, at the beginning of sixteenth century, begins with definitions of knowledge and cognitive powers which are reminiscent of those given by Peter Ailly, joining mental representation and signification.²⁵ In the analysis of knowledge and its different types (divine or human, sensitive or intellective, intuitive or abstractive), the vocabulary of intellection and its objects are constantly mixed with that of mental language (categoremata and syncategoremata, subject and predicate, noun and verb).

However, one cannot ignore the fact that these positions, which saw much progress in development and supported a real research program, did encounter some reticence and hesitations. I will mention two examples.

The first one is simply the observation that the analysis of knowledge in terms of mental signs was not replaced by psychological and noetic studies. It was certainly not necessarily their goal, and similarly, we can imagine that new trends coexisted with older approaches, but there is more to it than that. The fact that the theory of species did not disappear is significant (it was defended by both Buridan and Peter of Ailly). Claude Panaccio believes that criticism of the *species*, as constant as it was in Ockham's works, is not a decisive part of his doctrine. Nonetheless, the concept had to be thought of as a sign referring directly to the things and, in Ockham's later theory, its status as a natural sign was based on a direct causal relationship between the thing and the sign itself. If Peter of Ailly's theory of concepts and mental language seems to coexist simply with a quite rudimentary psychology,²⁶ Buridan, for his part, renews the gnoseological functions analysis, including intellection, by reinvesting the key concepts of peripatetic noetics.

We might nonetheless think that there is no incompatibility between these points of view—the logico-linguistic one and the psychological one. The second point I would like to discuss deals however with a real controversy. This issue is well known: some masters noticeably hesitated to accept the idea of a mental language in the literal sense. Indeed, Hugh Lawton, from the 1320s, even rejected the idea of a mental language;²⁷ soon after, William Crathorn admitted that we have an interior language, but only as an image of the exterior language. He also granted that we have universal gnoseological functions, but they are not subject to any analysis in semantic terms.²⁸ We would thus still have to deal with particular languages. Ockham's opponents were sometimes said to have weak arguments. Commentators oppose them with arguments, on the one hand, based on the fact that some basic mental concepts would be common to all men and, on the other hand, based on the requirement of translatability. But this is not the place to discuss these problems, which are still alive today. Historically speaking, the victory of the supporters of mental language was far from complete.²⁹ Of course, we can find some conceptions of mental language in Hobbes or Locke in the seventeenth century,³⁰ but in the meantime, beside the terminist logicians who explored the linguistic structure of thought, a new approach to thought and argument was beginning to assert itself. It took a different approach, which insisted on particular languages and cultures, and which was developed in the humanist *Dialectics* of the fifteenth century (as, for example, in Lorenzo Valla's work). Also in the modern age, while Leibniz explored the idea of a logical construction of thought (but more as calculation than language), Descartes, for his part, reinvested in a conception of representation as a picture.

But these remarks do not in any way invalidate the fruitfulness of the theory of mental language, nor its historical impact. Despite controversies, it has deeply influenced the theory of knowledge and analysis of acts of the mind. The hypothesis of a language of thought is still today a central issue in many discussions about linguistics, semantics, and cognitive psychology.³¹

Notes

- 1 See Plato, *Theaetetus*, 189e–190a.
- 2 Panaccio (1999). Among the numerous articles written by Claude Panaccio on this topic, see also (1992, 1996).
- 3 See Biard (2009).
- 4 Lenz (2003, 2012). Among the numerous articles on Ockham, and in addition to Claude Panaccio's work, I would mention Trentmann (1979), Spade (1980), Normore (1990), Yrjonsuuri (1997), and Chalmers (1999).
- 5 Ashworth (1985), and the relevant articles in Biard (2009).
- 6 Ockham, *Summa logicae*, I.1: 7–9.

- 7 See Panaccio (1999: 53–93).
- 8 See Augustine, *De Trinitate*, IX.7.12: 304.
- 9 Ibid. XV.11.17: 483–484: “Nam etsi verba non sonent, in corde suo dicit utique qui cogita.”
- 10 See *De Trinitate*, XV.10.18: 485: “Nec tamen quia dicimus locutiones cordis esse cogitationes, ideo non sunt etiam visiones exortae de notitiae visionibus, quando verae sunt.”
- 11 See *De Trinitate*, XV.11.20: 486–487.
- 12 See Gregory of Rimini, *Lectura super primum et secundum Sententiarum*, I, Prol., qu. 1, art. 3 (1974, vol. 1: 33); cf. Biard (1997).
- 13 See Ockham, *Summa logicae*, I.1.
- 14 See in particular Ockham *Summa logicae* I, and *Quodl.* V.8 (1980: 508–513).
- 15 See Peter of Ailly (1980a: 89, 1980b, §39: 23):

. . . one concept or act of understanding naturally needs another one and governs it (*naturaliter exigit alium et regit eum*). For example, a verbal concept naturally governs a nominal concept and needs it. And one concept is naturally joined to another transitively or intransitively. Hence it follows that it is by nature . . . that governing and construction pertain to mental terms properly so called.

- 16 This point of view is also strongly expressed in *Destructiones modorum significandi*, attributed without any certainty to Peter of Ailly.
- 17 See Bos and Read (2001).
- 18 See Paul of Gelria, *Tractatus de conceptibus*, in Bos and Read (2001: 122): “. . . dicitur ideo naturaliter proprie significare quia se ipso formaliter et non mediante aliquo signo significat, ut conceptus vel cognitio . . . Signum naturale naturaliter proprie significans est signum immediate potentie cognitive suum significatum representans.”
- 19 See Abelard (1994). This same treatise had already been edited by Ulivi (1976: 101–126). Cf. Panaccio (2010).
- 20 On this topic again, we will first refer to the chapters that Claude Panaccio wrote on Thomas in *Le Discours intérieur* (1999: 179–191). Thomas’s indications are scattered in numerous texts: see, among others, *Quaestiones de veritate* 4.1 and 2, and 4 in 1976: 117–125, 127–129; *Quaestiones disputatae de potentia* 8.1 in 1980: 248–249. See also Paissac (1951) and Kenny (1993).
- 21 See Aquinas, *Quaestiones de potentia* 8.1 in 1980: 249: “Intelligens autem in intelligendo ad quatuor potest habere ordinem: scilicet ad rem quae intelligitur, ad speciem intelligibilem, qua fit intellectus in actu, ad suum intelligere, et ad conceptionem intellectus”; Conception is synonymous with *verbum*: “Haec autem conceptio intellectus in nobis proprie verbum dicitur” (ibid.).
- 22 There is a discussion about to what extent and in which measure such a word can be an intermediary entity between the thing and the mind that knows. On this discussion, see Panaccio (loc. cit., 2001), Michon (2009).
- 23 See *Summa theologiae*, I.85.2 ad 3: “Non ergo voces significant ipsas species intelligibiles, sed ea quae intellectus sibi format ad iudicandum de rebus exterioribus.”
- 24 *Summa theologiae*, I.85.2 ad 3: “Nam primo quidem consideratur passio intellectus possibilis secundum quod informatur specie intelligibili. Qua quidem informatus, format secundo vel definitionem vel divisionem vel compositionem, quae per vocem significatur.”
- 25 Gervasius (1519).
- 26 Peter of Ailly’s *Treatise on the Soul* is brief and quite basic.
- 27 See Gelber (1984).
- 28 See Panaccio (1996), Robert (2009), and Karkkainen (2011).
- 29 See for example Normore (2009).
- 30 Panaccio (2003) and Pécharman (2009).
- 31 See an outline of the debates and of what is at stake in Fortis (1996).

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