

**Gregory of Rimini and Peter of Ailly:
Are Mental Sentences Composed of Parts?**

by

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Aristotle,¹ as is well known, distinguished three kinds of language on the basis of what might be called their “matter”: (1) written language, the matter of which is the written mark; (2) spoken language, the matter of which is the spoken sound; and (3) mental language, the matter of which is thought. This tripartite division of language was transmitted to the Middle Ages, most importantly by Boethius in his translation of and commentaries on the *De interpretatione*.

In the fourteenth century, there was a new interest in Aristotle’s third division, mental language. This interest, I suggest, stemmed from two sources. The first was the resurgence of nominalism. Whereas the traditional problems for realism are metaphysical ones: How can a single entity be common to many things in the way an external universal or common nature is supposed to be? What “principle of individuation” can account for the fact that the universal or common nature is contracted to the individual?—whereas these are the problems facing realists, the traditional problems for nominalism, on the other hand, are epistemological ones: If the world is the way the nominalists say it is, how is it possible to have any general knowledge of it? Once the emphasis is shifted in this way to the question of the possibility and extent of human knowledge, it is easy to see why there was a renewed interest in mental language, in which that knowledge was framed. If semantics in general is the theory of the relation between language and the world, then *epistemology—or at least a large part of it—is just the semantic theory of mental language*. As a result, the highly developed terminist semantic theory could be

¹ Aristotle, *De interpretatione* 1, 16^a1–8.

imposed to do double duty as an *epistemological* theory as well, thus effecting—if it works—a considerable theoretical economy.

The second reason, I suggest, for the fourteenth-century renewal of interest in mental language was one there is no *a priori* reason to confine to the nominalists, although with their concern for parsimony, the nominalists certainly took it to heart. The reason is this: Many of the authoritative statements of Scripture and of the Fathers, and for that matter many statements we take to be true in ordinary discourse, appear to be false if we take them literally, at face value, and evaluate them according to the principles of elementary terminist semantic theory. There are at least two ways, then, to save the truth of these statements. One is to go beyond *elementary* terminist semantic theory, to introduce whatever complications and fine distinctions are necessary to make the statements come out true. The other is to look beyond the statement itself to the user's *intent*, to suppose that the *mental* sentence correlated with the spoken or written statement has a different structure, one not accurately reflected by the structure of the spoken or written statement, and one that *can* be handled adequately by elementary terminist semantic theory. Readers of Walter Burleigh and William of Ockham will recognize that their treatments of such problematic sentences as 'Man is the worthiest of creatures' differ in exactly this way.²

² See Walter Burleigh, *De puritate artis logicae tractatus longior*, Philotheus Boehner, ed., (St. Bonaventure, N.Y.: The Franciscan Institute, 1955), pp. 12, 13–14; and William of Ockham, *Summa logicae*, Philotheus Boehner, Gedeon Gál and Steven F. Brown, ed., (St. Bonaventure, N.Y.: The Franciscan Institute, 1974), I, 66, pp. 199–201.

Once one began to look to *mental* sentences to save the authorities, it was but a small step to look to mental sentences *in their own right*, to begin to inquire about the details of the structure of mental language.

In my remarks today, I want to focus on one question that arose from this examination of mental language in its own right: “Are mental sentences composed of parts?” I want in particular to discuss the views of two men who are perhaps rather better known to historians of theology than they are to historians of philosophy: Gregory of Rimini and Peter of Ailly.

Gregory, of course, was an important exponent, and perhaps the originator, of the view that the *complexe significabile* was the significate of an entire sentence.³ Peter of Ailly, on the other hand, was opposed to this view.⁴ I do not want today, however, to focus on this aspect of their philosophies, but rather on their answers to the question “Are mental sentences composed of parts?”

Ockham thought they were. The *terms* of mental language are *concepts*; its *sentences* are judgments—affirmations and negations. Those judgments or mental sentences are really composed of concepts, or mental terms, just as much as spoken or written terms really make up spoken and written sentences. Ockham says:

A conceptual term is an intention or passion of the soul naturally signifying or consignifying something, and apt to supposit for it, and also *apt to be a part of a mental sentence*. Hence those conceptual terms *and*

³ See Hubert Elie, *Le Complexe significabile*, (Paris: J. Vrin, 1937).

⁴ *Ibid.*

the sentences composed of them are those mental words that Blessed Augustine, in *De trinitate* xv, says belong to no tongue, because they reside only in the mind and cannot be brought forth outwardly, although utterances can be pronounced outwardly that are, as it were, signs subordinated to them.⁵

Again, in his chapter on first and second intention, Ockham says that the concept is that “out of which a mental sentence is composed after the fashion in which a spoken sentence is composed of utterances.”⁶ Ockham, therefore, answers our question in the affirmative.

Later writers, however, found some interesting reasons to question this view. Around 1372,⁷ for instance, Peter of Ailly wrote a very interesting little tract called *Concepts and Insolubles*.⁸ (“Insolubles,” of course, are paradoxes like the Liar Paradox.) In Chapter Two, Part One of the *Insolubilia* section of that work, Peter raises the question in this form: “Is the mental sentence essentially put together out of several partial acts of knowing (*notitiis*), one of which is the subject, another the predicate, and another the

⁵ Ockham, *op. cit.*, I, 1, p. 7: “Terminus conceptus est intentio seu passio animae aliquid naturaliter significans vel consignificans, nata esse pars propositionis mentalis, et pro eodem nata supponere. Unde isti termini concepti et propositiones ex eis compositas sunt illa verba mentalia quae beatus Augustinus, xv *De trinitate*, dicit nullius esse linguae, quia tantum in mente manent et exterius proferri non possunt, quamvis voces tamquam signa subordinata eis pronuntientur exterius.”

⁶ *Ibid.*, I, 12, p. 41: “... ex quo propositio mentalis componitur ad modum quo propositio vocalis componitur ex vocibus ...” Ockham several times in this paragraph repeats the claim that mental sentences are composed of concepts.

⁷ On the date, see Elie, *op. cit.*, pp. 64f.

⁸ Published at Paris by Pierre le Dru, for Durland Gerlier, ca. 1495 (Copinger 391). There are also other incunabula editions.

copula?”⁹ In the following discussion, Peter relies heavily on the Prologue to Gregory of Rimini’s *Commentary on the Sentences*,¹⁰ written in the 1340s.¹¹ With an important exception, Peter accepts Gregory’s view, and at times quote him at length *verbatim*.

Both Gregory and Peter distinguish between mental language *properly* so called and that *improperly* so called. We have *improper* mental language when we simply speak silently to ourselves, running through in imagination the words and phrases of some spoken or written language. In short, we have *improper* mental language when we *think in English* or *think in Latin*. Gregory and Peter both say:

Anyone can observe sentences of this sort when, keeping silent with his mouth, he speaks with his heart by forming likenesses of what he would utter outwardly if he were to speak with his mouth.¹²

Gregory and Peter are *not* asking whether mental sentences in this improper sense are composed of parts, since they obviously are. When we rehearse a speech silently, for instance, we run through part by part, and in sequence, every sentence and every word that will ultimately be delivered aloud before an audience.

⁹ *Ibid.*, fol. 8^{ra}: “Utrum illa propositio mentalis sit essentialiter composita ex pluribus notitiis partialibus quarum una sit subjectum alia vero praedicatum et alia copula?”

¹⁰ Gregory of Rimini, *Super primum et secundum Sententiarum*, (Venice: Luceantorius de Giunta Florentinus, 1522; photoreprint edition, St. Bonaventure, N.Y.: The Franciscan Institute, 1955), Prol., q. 1, a. 3, fol. 4F–P. The discussion is repeated very closely in the scholium on fol. 33G–L.

¹¹ See Gordon Leff, article “Gregory of Rimini,” in *The Encyclopedia of Philosophy*, (New York: Macmillan, 1967), III, p. 390.

¹² Peter of Ailly, *op. cit.*, fol. 7^{vb}: “Et in hujusmodi propositiones potest quilibet advertere cum tacens ore loquatur corde formando similia quae si ore loqueretur proferret exterius.” Gregory’s text, *op. cit.*, fol. 4F, differs in inessential detail only.

Gregory and Peter are asking instead about the structure of mental sentences *properly* so called. These sentences, unlike those *improperly* so called, do not differ among men so that some are in English and others in Latin or French. Rather they are the same for all; they underlie the differences of idiom and account for the possibility of translation.¹³ Are *such* mental sentences composed of parts?

Gregory says no. Peter accepts Gregory's view as applied to mental *categorical* sentences properly so called, but rejects it as applied to mental *hypothetical* sentences—conjunctions, disjunctions, conditionals, etc. Peter thinks these really are composed of parts.¹⁴ Let us confine ourselves to the *categorical* cases henceforth, where Gregory and Peter agree that mental sentences properly so called are not really composed of subject, copula and predicate concepts.

There are several arguments for this view. I want to focus on two arguments I find of particular interest. The first argument¹⁵ in effect asks “What on earth would correspond to *word-order* in mental sentences properly so called?” Consider, for example, the two spoken or written sentences ‘Every whiteness is a quality’, which is true, and ‘Every quality is a whiteness’, which is false. Each of these sentences expresses a mental sentence properly so called. If those mental sentences are put together in the

¹³ Peter of Ailly, *op. cit.*, fol. 7^{ra}: “Unde propositiones mentales quae non sunt similitudines vocum aut scripturarum non secundum illarum diversitatem diversificantur in hominibus, sed eadem secundum speciem apud omnes tales in quantum significant naturaliter et sunt naturaliter propositiones et non ad placitum.” See also Gregory, *loc. cit.* Gregory cites Augustine, *De trinitate* xv, 10.19–11.20, and Anselm, *Monologion*, c. 10, for the distinction between proper and improperly mental language. Although Ockham does not draw the distinction explicitly, his reference to Augustine (see n. 5 above) makes it clear that he is speaking of mental language *properly* so called.

¹⁴ Peter of Ailly, *op. cit.*, fol. 8^{vb}: “Omnis propositio mentalis hypothetica est ex pluribus notitiis partialibus essentialiter composita.”

¹⁵ *Ibid.*, fol. 8^{ra}–^{va}; Gregory, *op. cit.*, fol. 4K–G. Gregory uses ‘entity’ instead of ‘quality’.

way in question, then each will contain the concept of whiteness, the concept of quality, the mental copula, and a syncategorematic concept corresponding to the universal quantifier ‘every’. How do the two mental sentences differ? They *must* differ; they cannot be numerically or even specifically the same, since one corresponds to a true spoken or written sentence, and the other to a false one. What is it that makes the concept of quality the subject, and the concept of whiteness the predicate, in the one mental sentence, whereas in the other it is just the reverse?

In the case of *written* sentences, the difference of course is one of the spatial configuration of the two terms. But the soul is a *spiritual* being, so that such spatial configurations can make no difference to mental language properly so called.

Spoken language, of course, is like mental language properly so called in not relying on the spatial arrangement of its terms. Instead it relies on their *temporal* ordering. In speech, the difference between the two sentences is that in the one case the term ‘whiteness’ is uttered before the term ‘quality’, and in the other case it is just the reverse. Is it like this too in mental language properly so called?

Gregory and Peter think it is not. They argue that the intellect is able to produce a whole sentence or judgment all at one. Peter even says that this is the intellect’s “perfection.”¹⁶ They seem to be thinking here of mental sentences properly so called as those judgments the mind makes in an instantaneous “flash of insight.” There is no *sequence* here, no ordering of part after part. That, on the contrary, is the sort of thing that goes on in mental language *improperly* so called. Accordingly, there appears to be no

¹⁶ Peter of Ailly, *op. cit.*, fol. 8^{va}; Gregory, *op. cit.*, fol. 4N.

way to distinguish the two mental sentences properly so called corresponding to the spoken sentences ‘Every whiteness is a quality’ and ‘Every quality is a whiteness’, if these mental sentences are really put together in the way described. Hence, the argument continues, the *same* mental sentence properly so called corresponds to the two spoken sentences, one true and the other false. Therefore, the same mental sentence properly so called is both true and false. The absurdity of this conclusion just goes to show the absurdity of assuming that the mental sentences properly so called are composed of parts in the way described.

If we grant the notion of proper mental language at all, then I think the argument is a good one, and raises a telling objection to Ockham’s view, for instance, of the structure of mental sentences. There *is*, however, a way out, a way that requires complicating Ockham’s straightforward view considerably, but that was perhaps seen and adopted by some writers, and reported by the anonymous author of a *Commentarium in Insolubilia Hollandrini* no earlier than the third quarter of the fourteenth century.¹⁷ The author reports:

They say that for something to be a sentence it is required that there occur in it, expressly or equivalently, a subject, a predicate and a copula. They further say that for something to be a subject there is required a syncategorema pre-denoting¹⁸ that it is a subject, and in the same way for

¹⁷ Preserved in Vienna, Nat. Bib. 4953, fols. 86^r–118^v, and perhaps also in Cracow, Biblioteka Jagiellońska 2132 BB. vi 5. See my *The Mediaeval Liar: A Catalogue of the Insolubilia-Literature*, (Toronto: Pontifical Institute of Mediaeval Studies, 1975), item v.

¹⁸ The sense of this word is unclear.

the copula and the predicate of a categorical sentence ... Just as, for something to be taken disjunctively there is required a syncategorema by means of which it is so taken, so for some term to be taken as a subject there is required a syncategorema by means of which it is taken as a subject. So too for the predicate.¹⁹

The way out suggested here is to maintain that mental language is so highly inflected that *word order counts for nothing whatever*. Ockham is already committed to the view that categorematic concepts have case and number, tense and person.²⁰ The suggestion goes beyond this in proposing that mental language is so highly inflected that subjects and predicates of mental sentences are *never* specifically the same, that the subject of the mental sentence corresponding to ‘Every whiteness is a quality’ and the predicate of that corresponding to ‘Every quality is a whiteness’ are as distinct as a

¹⁹ Vienna, Nat. Bibl. 4953, fol. 103^r: “Et dicunt quod ad hoc quod aliquid sit propositio requiritur quod in ipso expresse vel aequivalenter sit subjectum, praedicatum et copula. Dicunt ulterius quod ad hoc quod aliquid sit subjectum requiritur unum <syn>categorema praedenotans ipsum esse subjectum. Conformiter de copula et praedicato categoricae ... Sicut ad hoc quod aliquid accipiatur disjunctive requiritur unum syncategorema mediante quo sic accipiatur, sic ad hoc quod aliquis terminus capiatur pro subjecto, requiritur syncategorema mediante quo capiatur pro subjecto. Et sic in praedicato.” This discussion occurs in the context of the *dubium* “Utrum pars insolubilis sit insolubilis, et similiter, utrum pars propositionis sit vera?” (See *The Mediaeval Liar*, p. 26.) The author says that those who hold the view he describes are the same as those who say that “nulla pars propositionis categoricae sit propositio” (fol. 103^r). In this connection, it is perhaps worth noting that John Buridan held that ‘no part of a proposition is a proposition, as long as it is a part of a proposition’ (*Sophismata* VIII, sophism 13, trans. by Theodore Kermit Scott, *John Buridan: Sophisms on Meaning and Truth*, (“Century Philosophy Sourcebooks”; New York: Appleton-Century-Crofts, 1966), p. 208). Nevertheless, I know of no place where Buridan holds the view the anonymous author associates with this position in the passage above.

²⁰ Ockham, *op. cit.*, 1, 3. See also his *Quodlibeta septem*, (Strassburg, 1491), quod. v, q. 8.

nominative noun is from the corresponding genitive, or as a present-tensed verb is from the corresponding future-tensed one.²¹

A mental sentence properly so called, then, would on this view consist of a simple “binding together” of all its categorematic and syncategorematic parts. Word order would be irrelevant, and indeed inapplicable. It is possible, therefore, to answer Gregory and Peter’s argument and to maintain Ockham’s view that mental sentences are indeed composed of parts, but only by making mental language more complicated than Ockham probably intended.

This brings me to the second and final line of argument I want to consider. On the “way out” I have just sketched, a mental sentence properly so called is just the “binding together” of its parts. But what is this “binding together”? How are the parts forged by the mind into a whole? Gregory and Peter say:

There does not seem to be any possible way for such a putting together to take place. For if someone who is not affirming or denying anything should nevertheless have some simple acts of knowing, and thereafter form a sentence out of them, it is not apparent what change has taken place in them by which they are put together with one another any more than they were before.²²

²¹ This view is only *suggested* by the anonymous text quoted above, since it is perfectly consistent with that text to take the required syncategorematic features to be *word-order*, thus leaving us with Gregory and Peter’s objection. I doubt, however, that this is what was intended.

²² Peter of Ailly, *op. cit.*, fol. 8^{rb}: “Non apparet modus possibilis talis compositionis. Nam si quis nihil affirmans vel negans habeat notitias aliquas simplices et deinde formet propositiones, non apparet
(Continued)

The point, I take it, is that there is no difference between, on the one hand, forming the three concepts corresponding to ‘Socrates’, ‘is’ and ‘mortal’ (appropriately inflected, according to the “way out” I sketched earlier) and, on the other hand, forming the mental sentence ‘Socrates is mortal’. The fact that in the spoken or written sentence the words are *arranged* in a certain sequence is irrelevant, since we have just seen that there is no word-order in mental language properly so called. And there appears to be no other way to put its parts together.

It takes a moment’s thought to see the force of this. One’s initial response is to say that the difference lies in a superadded act of composition or putting together, performed by the intellect, as in the theory of the intellect as “composing and dividing.”²³ But that venerable old theory will not help us here. For, according to that theory, the intellect’s act of “composing” (its affirmative judging) plays the role of the affirmative copula, linking the subject with the predicate. But we have included the copula already among the three concepts at the outset. They were, recall, the concepts corresponding to ‘Socrates’, ‘is’ and ‘mortal’; the copula is the second one. To suppose that there is yet *another* intellectual act—another copula, as it were—needed to bind the subject to the original copula, and that copula to the predicate, that is to embark on Bradley’s regress.

Just as the first argument I discussed was a good argument, not in the sense that it proved that no proper mental sentence was composed of parts, but in the sense that it proved that they were not composed of parts in the straightforward way Ockham thought

quae variatio in illis fiat propter quam plus adinvicem componantur quam prius.” See Gregory, *op. cit.*, fol. 4L–M.

²³ See, e. g., Thomas Aquinas, *Summa theologiae* 1, q. 16, a. 2.

they were, so too I think this second argument is good for the same purpose. One way to avoid the argument is perhaps to say that the mental copula is not a *part* of the mental sentence in the same way that the subject and predicate are, so that it can be counted as a separate item in a list of ingredients. Rather, one might argue, since the mental copula is nothing more than the act of conjoining the terms, one cannot form the mental copula without having also the conjoining of the terms—i.e., without having the mental *sentence* of which the copula *is* the copula.

This approach, one not entirely unfamiliar to medieval logicians,²⁴ entails that there is a specifically distinct copula for each proper mental sentence, and that that copula is not an entity that can exist apart from the sentence of which it is a copula. This approach avoids Gregory and Peter's argument by simply denying that there is any difference to be accounted for between forming the mental sentence and forming its constituent parts—including the copula.

Hence it is perhaps possible to answer Gregory and Peter's objection and to maintain that proper mental sentences are composed of parts. But in so doing, one has gone once again far beyond Ockham's rather straightforward view of that composition. It is *not* just like the composition of spoken and written sentences after all. For in spoken and written sentences, the copula *is* a separable ingredient that can be spoken or written

²⁴ Buridan perhaps held such a view. See Buridan, *op. cit.*, Chap. 1, reply ad 3, p. 80: "I say further that since the intellect could not form that complex concept [= the copula] without the categorematic concepts that compose it, that concept conceives no one thing." For the Latin, see *Sophismata Buridani*, (Paris: Antoine Denidél and Nicole de la Barre, [c. 1496–1500]), no foliation (Goff, B-1295).

in isolation, and is moreover specifically the same in all spoken sentences, and specifically the same in all written ones.

In conclusion, Ockham seems to have held that, with some important exceptions, the structure of spoken and written sentences reflects exactly the structure of the mental sentences with which they are correlated—at least as far as those features that affect truth and falsehood are concerned. The exceptions occur when (1) a sentence contains a figurative expression, (2) a sentence contains a connotative term, or (3) a sentence is “exponible” (a matter I do not want to go into here²⁵). Otherwise, Ockham seems to have thought, the neat, part by part isomorphism holds. Gregory and Peter have succeeded, I think, in showing that that view is untenable.

²⁵ On *exponibilia*, see the introduction to my “Five Logical Tracts by Richard Lavenham,” in J. Reginald O’Donnell, ed., *Essays in Honour of Anton Charles Pegis*, (Toronto: Pontifical Institute of Mediaeval Studies, 1974), pp. 70–124 at pp. 83–93.