Chapter 24
Mental Words and Mental Language in the Later Middle Ages

Russell L. Friedman and Jenny Pelletier

It is now a well known and increasingly well studied episode in medieval philosophy of mind that William of Ockham in the first quarter of the fourteenth century developed a genuine theory of mental language, in which the mind builds up mental propositions out of component concepts. Although one can find hints of the idea of mental speech, as distinct from spoken or written speech, already in Plato, Aristotle, and the Stoics, nevertheless for the later scholastic discussion, it was Augustine's treatment of the *verbum cordis* in especially book fifteen of his *De trinitate* that set the agenda.

Augustine saw his task as clarifying the relationship between the Father and the Son in the Trinity, and he took his point of departure in passages from John's Gospel (esp. John 1,1–3 and 14) in which the Son is identifed with a *logos*, translated into Latin as *verbum* and into English as 'word'. Thus, Augustine sets out to show how the way in which the mind forms its 'word' can teach us something about the way in which the Father generates his Son, and Augustine did this by expounding on the relationship between, on the one hand, an item of knowledge available to us in our intellectual memory, and, on the other, the same item of knowledge as consciously thought. The item of knowledge as consciously thought is, for Augustine, the *verbum cordis*, i.e. (in later terminology) the mental word or concept. Thus, according to Augustine, just as the mental word is in all ways like the memory knowledge from which it is begotten, differing only insofar as it has been begotten, so the Father and the Son are identical essentially, differing only on account of the Son's generation, his receiving the divine essence from the Father. Precisely because the word must be absolutely like the knowledge from which it is begotten, except that it is begotten, it must be prelinguistic, just like the knowledge in the memory before being thought

R.L. Friedman (✉) • J. Pelletier
Hoger Instituut voor Wijsbegeerte, University of Leuven,
Kardinaal Mercierplein 2, bus 3200, 3000 Leuven, Belgium
e-mail: russell.friedman@hiw.kuleuven.be; jenny.pelletier@hiw.kuleuven.be

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is prelinguistic (**1**). The important and interesting point here is that for Augustine, thought, and more specifically the basic components of thought, these *verba*, are anterior to any language, and yet by the very name he uses for them, 'words', Augustine appears to open up for a linguistic aspect or dimension to thought. This opening will be capitalised on by later thinkers.

Although there were some developments in the period between Augustine and the thirteenth century – one can point to Boethius, Anselm, and Abelard as having made significant contributions, some of which were noted by later thinkers –, nevertheless it was only in the thirteenth century when the psychological works of Aristotle, especially the *De anima*, and those of Aristotle's Muslim commentators became widely studied at the newly founded universities did a true, self-sustaining discussion of concepts and attendant mental phenomena like the mental proposition develop. A convenient starting point to pick up this discussion is with Thomas Aquinas, who created a theory of human scientific knowledge which melded the Aristotelian and the Augustinian legacies available to him. In Aquinas's new synthesis, the Augustinian *verbum* had become an element added onto the whole Aristotelian process of 'abstraction' as it was understood in Aquinas's day (see pp. 274–275 above). Whereas the Aristotelian process had ended with the agent intellect impressing an intelligible species upon the possible intellect, Aquinas added a step: an act of the possible intellect itself which was productive of a term, this term being the subsistent endpoint of the act. Aquinas calls the term the *conceptio* or word, 'because it is what is signified by the exterior', i.e. linguistic, 'word', and only through the concept does the spoken word signify the thing (**1**). Aquinas appears, then, to posit what we could call an 'act-object' theory of concepts, i.e. a theory on which the act of the intellect issues in a term, an intentional object, that is in some sense distinct from the act itself.

This act-object theory was popular among the earliest supporters of Aquinas, especially, although not exclusively, among his fellow Dominicans. One can take as an example of this Hervaeus Natalis who distinguished the mental word from the intellect's act of saying (*dicere*) through which the word is formed, just as Aquinas did, and denied that the mental word is identical to any of the several acts which the intellect has (**2**). There was a critical reaction to the 'act-object' theory from primarily Franciscan authors. Peter John Olivi was an early and very vocal proponent of the rival 'act' theory of the word (**3**). According to this theory, the concept is simply the intellect's act itself. On Olivi's terms, 'our mental word is our actual thought', which in turn means that intellectual cognition involves 'nothing serving as an object … that differs from the act.' Whereas the act-object theory postulates a product of a first mental act – a product which serves as the act's object, thereby making something manifest to someone – the act theory holds that the mental act alone can take care of all the representational functions necessary to satisfactorily explain intellectual cognition. Views like Olivi's are related to our contemporary 'adverbial' theories of cognition.

These two theories – 'act-object' and 'act' – dominate the later-medieval theories of intellectual cognition. While many Dominicans like Thomas Aquinas and Hervaeus defended an act-object theory, many Franciscans joined Olivi in holding an act theory of the word. Among these Franciscans were John Duns Scotus

and William of Ockham. Within this general picture, however, is hidden a wide variety of interesting and innovative views. The Franciscan theologian, Peter Auriol (**4**), holding a type of act-object theory, insisted that concepts *are* (according to strict numerical identity) extramental particulars, but having a different type of existence, a different *modus essendi*, than the real existence they have extramentally. Auriol called this special type of existence 'intentional' or 'objective' existence. A second out-of-the-mainstream position is that of the Dominican thinker, Durand of St. Pourçain (**5**), who defended an act theory of the concept. Durand claimed that the concept is merely the intellectual act itself, and further that the intellectual act has no existence of its own, since it is just a way that the intellect itself exists, i.e., as standing in a relationship with an object of cognition.

A related debate, and one which played a large role in the transition from mental words to mental language, is that over the possibility of the intellect having more than one act (and hence more than one thought) at a time. Thus, according to Durand of St. Pourçain (**5**), the intellect can have just one act at a time. He defended this view at length in a treatise from around 1311 or 1312 which was directed against the English theologian, Thomas Wylton. Wylton (**6**), perhaps for the first time in the scholastic university debate, held that the human intellect not only can but does in fact entertain more than one thought at a time. Wylton starts from the reasoning intellect and works backwards; that is to say, Wylton argues that we can only explain the fact that the intellect works in the way it actually does if we grant that it can have many acts at once. We can call Wylton's view a 'compositional' theory of the mental proposition: a mental proposition requires at least three acts in the intellect simultaneously, two of those acts corresponding to the terms of the proposition, and a third act functioning as the mental copula. Against this view, Durand holds what we can call a 'unity' theory of the mental proposition, according to which a mental proposition is ontologically simple, being produced all at once as a whole, while nevertheless being semantically complex.

In the fourteenth century Ockham develops a highly complex and sophisticated notion of a mental language which is, in principle, the universal language of thought for all human beings (**7**). Ockham famously changed his mind on the ontological status of concepts. Initially advocating an act-object theory, superficially similar to Peter Auriol's, Ockham ultimately endorsed an act theory on which the concept is simply the intellectual act itself. These mental concepts, conceived of as natural signs of things, are the elemental semantic units of mental language. They are combinable into syntactically structured and semantically rich mental propositions in which they figure as subject and predicate terms, supplemented by logical particles known as 'syncategoremata'. A mental proposition, according to the mature Ockham, is an organised composite of many, discrete intellectual acts; for this reason, Ockham appears to hold a version of Wylton's 'compositional' theory of the mental proposition. Both the terms and propositions of mental language are prior to and underlie all spoken and written languages. Following in Ockham's footsteps, John Buridan **(7)** continues to develop an elaborate understanding of mental language, with some salient differences

concerning the function and reference of concepts. Further, Buridan agrees with Wylton and Ockham that the mental proposition is composed of many acts. In contrast, Gregory of Rimini supported Durand's unity theory of the mental proposition where the mental proposition is produced all at once in a single act (**7**). The debate on the ontological structure of the mental proposition would remain prominent into the early modern period (on the early modern debate, see Ashworth 1981, 1982; Meier-Oeser 1997, 2004).

1 From Augustine to Aquinas

a. The human mind, therefore, knows all these things it has obtained through itself, through the senses of its body, and through the testimonies of others, and holds them in the storehouse of its memory. And from these things a true word is begotten when we say what we know, but the word is prior to every sound and prior to every thought of sound. And this is because the word is then most like the thing which is known, from which its image is also begotten, since the sight of thought arises from the sight of knowledge. This is the word belonging to no language, the true word about a true thing, having nothing from itself, but everything from the knowledge from which it is born. (Augustine, *De trinitate* XV.12.22 (493–494, lines 87–96))

b. If memory is taken to be exclusively a power able to conserve species, then it is required to say that there is memory in the intellective part [of the soul] … sometimes intelligible species are in the intellect only potentially, and then the intellect is said to be in potentiality; sometimes they are in the intellect insofar as the intellect's act has been brought wholly to completion, and then the intellect is actually understanding; but sometimes they are there in a way falling between potentiality and act, and then the intellect is said to be disposed. And in this last way, the intellect conserves a species even when it is not actually understanding. (Thomas Aquinas, *Summa theologiae* I.79.6c, ad 3)

c. Someone understanding, insofar as they are understanding, can have an order to four things, namely: to the thing understood; to the intelligible species by which the intellect is brought to act; to the very [act of] understanding; and to the intellect's conception. And the conception in fact differs from the other three. It differs from the thing understood, since the thing understood is sometimes outside the intellect, while the intellect's conception is only in the intellect; and further the intellect's conception is ordered to the thing understood as to an end, for the reason that the intellect forms inside itself a conception of the thing understood is to cognise that thing. The conception differs from the intelligible species, since the intelligible species, by which the intellect is brought to act, is considered to be the source of the intellect's action, since every agent acts insofar as it is in act, but it is brought to act through some form, and that form is the source of action. The conception differs from the intellect's action, because the aforementioned conception is considered to be the term of the action, and something that is, as it were, constituted through it; for

by its action the intellect forms the definition of the thing, as well as affirmative or negative propositions … But this conception of the intellect in us is properly called the word, because it is what is signified by the exterior word. For the exterior spoken sound (*vox*) signifies neither the intellect itself nor the intelligible species nor the act of the intellect, but it signifies the conception of the intellect, and through the mediation of the conception the sound refers to the thing. (Thomas Aquinas, *De potentia* 8.1)

For Augustine **(a)**, all the knowledge in our possession rests in the intellectual memory, ready to be consciously thought about. We form a word upon thinking any particular item of knowledge stored in the memory; thus, the knowledge in the memory is 'formable', i.e., ready to be formed, while the word is that same knowledge actually formed. This word is an exact likeness of the prior knowledge, it has 'nothing from itself, but everything from that knowledge from which it is born', and the word differs from the knowledge from which it is born exclusively in virtue of the fact that it is born or formed. Thus, in Augustine's famous dictum, the word is *scientia de scientia*, *visio de visione* (Augustine, *De trinitate* XV.15. 24): the word and the knowledge from which it comes differ only insofar as the word is born from the prior knowledge; in all other respects they are identical. Following from this, Augustine claims that there are two tiers of thought process behind any physical action or physical speech. Closest to our material or physical expressions is what he calls the 'sight of thought' (*visio cogitationis*): this is speaking linguistic words in our mind, thinking silently to ourselves in language. But there is a deeper level of thought: concepts must exist which are unhampered by the constraints of language, which are prior to all tongues and hence at least potentially common to all speakers, indeed 'prior to every sound and prior to every thought of sound'. Thus, Augustine says that prior to the 'sight of thought' there is a 'sight of knowledge' (*visio scientiae*). This is the inner word, the word of the heart (*verbum cordis*): our knowledge, as it is stored in the memory, brought forth as the object of our understanding. It should be noted that Augustine's terminology makes perfect sense: the word of the heart is formed by the mind's eye focusing on – seeing or thinking – the *knowledge* stored in the memory, and hence is sight of knowledge, whereas the more material, linguistic level is seeing the knowledge that we have *thought* in the word. Thus: sight of knowledge versus sight of thought. In this way Augustine associates concepts more with sight and images than with language, which stands in contrast to his calling concepts 'words' (of course he is constrained to do that by the roots of the discussion in John's Gospel.) (On Augustine's theory of the mental word, see, e.g. Sirridge 1999).

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The challenge for Thomas Aquinas when discussing mental words was to reconcile the Aristotelian and Augustinian traditions available to him. Augustine's theory of the mental word explains how we bring to conscious thought *dispositional* knowledge, i.e. knowledge which we already have stored in our memory and ready to use. Aristotle's theory of intellectual cognition explains how we come to have *original* intellectual knowledge, i.e. knowledge acquired upon direct sensory acquaintance with extramental reality. To bridge the gap between the two theories, Aquinas claims that, upon the completion of the process of Aristotelian abstraction as it was understood in his day, the active intellect impresses an intelligible species upon the possible intellect, and the possible intellect informed by the intelligible species (but not actively thinking its content) just is Augustine's intellectual memory **(b)**. Moreover, according to Aquinas the possible intellect informed by the intelligible species is able to have an act of its own, and the product of this act is what Augustine called the word. In this way Aquinas melded together the Aristotelian and Augustinian legacies available to him. Thus, with respect to the ontology of the mental word or 'conception', Aquinas is clear **(c)**: it cannot be reduced to the intelligible species abstracted from the phantasm by the agent intellect, because the intelligible species is the source of the possible intellect's further act, since the intelligible species is the form on account of which the intellect is brought from potentiality to act. Moreover, the word is not identical to the act of the possible intellect, through which the definition of the thing or its word is formed, because the word is the term, i.e. product, of the act. The word or conception is thus in some way or another ontologically diverse from the intellectual act through which it is produced. This can be called an 'act-object' theory of the mental word. Finally, Aquinas claims that the mental word takes its name from the crucial role it plays as semantic mediator between spoken words and the things they refer to. (Pasnau 1997, 254–271; Brower and Brower-Toland 2008; Kawazoe 2009; Cross 2009.)

2 Hervaeus Natalis

a. However, with respect to the third issue, namely in what way a mental word relates to an act of understanding, it seems to me at least at present that a mental word is not identical to an act of understanding. And it seems that this can be persuasively argued as follows: the intellect produces a mental word in order to make something manifest to itself [i.e., to the intellect]; but that which is produced in order to make something manifest does not itself appear to be a manifestation or an apprehension (these are the same thing) just as that which is subject to local motion

is not itself a local motion. Therefore, a word is not itself the manifestation or apprehension of the thing about which the word is formed. (Hervaeus Natalis, *De intellectu et specie*, 146)

b. Moreover, cognitive acts that are proper to complex concepts, which are signified by declarative sentences just as 'the stars are equal' is a declarative sentence, are acts of assenting or dissenting or opining or knowing. But it can happen that the intellect sometimes assents, sometimes dissents, sometimes opines, sometimes knows, and sometimes even doubts, while the form of the proposition and of the concept (which a proposition is a sign of) remain the same. Therefore, a complex concept, which a declarative sentence signifies, is not the assenting or dissenting or opining or knowing or some other cognitive act by which the complex is to be cognised. And consequently, it seems that no concept or word is a cognitive act. (Hervaeus Natalis, *De intellectu et specie*, 146)

c. Therefore, it seems probable to me that a mental word is really diverse from an act of understanding. And similarly, saying, i.e. forming a word, is different, it seems to me, from an act of understanding, although it cannot exist without an act of understanding. This is because saying is nothing other than forming the kind of concept that is necessary for moving the intellect towards an expressed cognition of that about which it is formed. (Hervaeus Natalis, *De intellectu et specie*, 147)

Hervaeus Natalis denies that the mental word is identical to any act of understanding (**c**). He also distinguishes the word from the act through which the word itself is consciously understood. In this respect, Hervaeus argues through analogy (**a**): just as something subject to local motion is distinct from the local motion itself, so the word, whose purpose is to make something manifest or apparent to someone, is distinct from the actual manifestation or appearance, i.e. the act of understanding itself. This distinction between word and intellectual act applies, according to Hervaeus, also for higher level words, i.e. propositions (**b**): I can clearly have different propositional attitudes towards the same propositional content. Hervaeus concludes that a 'complex concept', i.e., the higher order mental word which is the mental equivalent of a declarative sentence, is distinct from the acts of understanding through which I have different propositional attitudes towards the complex concept. In fact, Hervaeus goes so far as to claim that it seems probable that the mental word is really diverse from the act of understanding, using the term 'really' (*realiter*) in the technical sense of their having each their own different real being (**c**). Indeed, on Hervaeus's theory, the mental word is sandwiched between two intellectual acts: an act of saying through which the word is formed, and an act of understanding through which the word is actually understood. The word itself is distinct from both of these acts, serving, in different ways, as the object (or term) of these acts. (On Hervaeus's cognitive theory, see Trottmann 1997.)

3 Peter John Olivi

a. Our word is our actual thought, and vice versa … There is no necessity or usefulness in positing a word [which is distinct from the actual thought]. This is because the intellect understands things and their real relationships, and these are present to the intellect in themselves or in memory species. Thus, whether the things and their relationships are present to the intellect in themselves or the things themselves are absent but nevertheless presented to the intellect through memory species, there is no necessity for another mirror serving as object in which the things would be presented to the intellect. That would rather be an impediment … Whatever we conceive first and per se through our intellect's actual consideration, we conceive in the very act of considering. Indeed, in its internal conception and formation not only is the act itself conceived but also its object is conceived insofar as it exists intentionally and representationally in the act. And this is the concept which we first experience within us. But because, when such an act has passed there remains with us a memory of the act and its object, thus we experience secondarily that something remains in us through which we can remember the act which has passed and its object. Augustine calls these memory species, and to the extent that they have been formed or caused by the force of the act which has passed and have been received and retained in the matrix of our memory, they can indeed be said to be conceived and formed in us. But not on this account do they properly deserve to be called a 'word' … (Peter John Olivi, *Tractatus de Verbo* 6.2.1, 6.2.3 (138.137; 144–145.319–326, 339–352))

b. … the first abstraction of universal concepts comes about solely through the act of abstractive consideration attending and considering the real features of the common or specific nature without the features of its individuation. Through this [act of abstractive consideration], however, nothing serving as an object is really abstracted or formed which differs from the mentioned act of consideration, although a kind of species within the memory is caused through that act, and this remains in us later, when the act has passed; later we return to this species, when we want to remember in their absence the things we had earlier considered intellectually and as present. (Peter John Olivi, *Tractatus de Verbo* 6.2.3 (145.365–371))

Olivi holds an 'act' theory of the concept, on which the intellectual act itself is the concept, not a product of the intellectual act. Two main types of arguments for his position are as follows. First, positing an object distinct from the intellectual act would compromise the immediacy of intellectual cognition, since it would act as 'an impediment' to our grasping reality – here Olivi insists (in typically Franciscan fashion) on cutting down the mediators between extramental reality and our grasping of it. Second, according to Olivi, there is no explanatory justification for positing the product, since the act itself

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covers all the intentional and representational functionality which act-object theorists say is necessary (**a**). On Olivi's view, the act theory explains everything that needs to be explained about intellectual cognition and it does so more simply and more satisfactorily than the act-object theory does. For Olivi, the only objects produced by mental acts are 'memory species' (**b**).

Given the simplicity benefits which appear to accrue from discarding the object from the act-object theory of the concept, it might be asked why Aquinas and many others would have ever supported it. Robert Pasnau (1997, 265–276) has suggested one plausible reason: we normally think that we need to have an object of our thought in all instances in which thinking takes place; in cases where there is an extramental correlate for a particular concept, a case can be made for the object of thought simply being that extramental object. But what about cases in which there is no (attractive) extramental correlate, like universals, propositions, or imaginary creatures? What is the object of thought in those cases? Here an act-object theorist like Aquinas would seem to have an advantage: the object is the word formed by the mind, a mental correlate. There is at least one other advantage that act-object theorists seem to have over act theorists: with their theory they can more straightforwardly explain intellectual memory. That human beings have an intellectual memory – a memory serving exclusively to recall to mind intellectual knowledge that I have had in the past – was accepted by basically all medieval philosophers, in part because this type of recall seems to be a part of ordinary human experience, in part because the intellectual memory is an integral element in Augustine's theory of the mental word. But, it seems hard to account for intellectual memory using an act theory of concepts, since, once the act is over, what is left in the intellect to carry the memory trace which can be recalled at a later point? The act-object theory has an immediate answer to this question: the object of the mental act itself is the memory trace. We can see the problem clearly in Olivi's theory: he actually posits 'memory species' to be the only products of the intellectual act, thereby implicitly admitting that, on this score, the act-object theory has an advantage, since some type of product is necessary in order to account for intellectual memory. Olivi attempts to turn this to his own advantage (**a**), by drawing a distinction between occurrent intellectual cognition and the basis for memory; moreover, he points out that for Augustine the word was not the basis for the memory, but rather the other way around: the memory was the basis for the word. But neither of these moves appear to deal in a fully satisfactory manner with the philosophical issues involved in intellectual memory. One elegant way of getting around this problem for an act theorist, is the path William of Ockham took: claim that intellectual memory is a habit generated precisely on the basis of the intellectual act. (On Ockham's theory of memory, see, e.g., Adams 1987, 515–525.)

4 Peter Auriol

a. Concepts are true particular roses and flowers, indeed not as they exist extramentally, but as they exist intentionally and objectively, and according to formed being they concur in one something without qualification, which is present in the intellect through the intelligible species or through the act. And since it stands to reason that such a something is only in the soul while it is actually understanding, but the intelligible species remains without the act, one can manifestly conclude that such a thing only emanates in being of this kind while it is actually being understood and in the intellection or actual knowledge. (Peter Auriol, *Scriptum super I Sententiarum* 27.2.2; Electronic Scriptum, ll. 520–25; ed. 1596, 624bB)

b. In every intellection there emanates and proceeds nothing other than the cognised thing itself in a certain objective existence through which (*secundum quod*) it serves to terminate the intellect's gaze. (*Scriptum super I Sententiarum* 27.2.1; Electronic Scriptum, ll. 365–66; ed. 1596, 622aF)

c. The objective conception passively taken does not look to the thing as a type of substrate, rather the thing which is conceived is a part of it and is indistinguishably mixed together with it. Thus, the conception of a rose is the same as a rose, and the concept of an animal is the same as an animal. The concept [of animal] certainly holds indistinguishably the realities of all particular animals and a certain way of being, which is intentional, which is nothing else than passive conception. Not that the intellect can accept in a precise way those realities just as they are held in the concept and superextend over them an intentional mode of being or a passive conception … in fact the intellect cannot distinguish these realities from the conception. But one concept and intention is constituted without qualification, and it cannot be divided. (*Scriptum super I Sententiarum* 23.2.22, ed. Perler in 1994, 248 (= ed. de Rijk 2005, 718.17–719.12))

d. We have to consider that the only absolute the thing put in formed being holds in itself is the reality [of the thing itself]. Thus the thing posited in formed being and its intention do not differ numerically with respect to anything absolute. Nevertheless it holds in itself something respective, namely to appear. That [respective appearing] ought not to be understood as something affixed or superimposed upon the thing, as other relations are, but utterly intrinsic and indistinguishably joined to it. (*Scriptum super I Sententiarum* 27.2.2; Electronic Scriptum, ll. 584–88; ed. 1596, 625aF–bA)

Peter Auriol's act-object theory of intellectual cognition is extremely distinctive and attracted a great deal of attention in the fourteenth century. For Auriol, a concept of, say, Socrates *is* (strict numerical identity) Socrates, differing only in terms of their way of existing, since Socrates has real existence, while a concept of Socrates has intentional existence (or, using a Scotist term, 'objective existence', e.g. **(b)**). And what characterises intentional existence is the fact

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that it appears to a sense or an intellect – hence Auriol's most characteristic name for intentional existence is 'apparent being' (*esse apparens*). Intentional existence, then, simply is the kind of existence which things have when they are being sensed or thought, but the thing in intentional existence does not differ numerically from the thing as it exists in reality **(d)**. More particularly, what characterises this type of existence is that it is a particular extramental object, e.g. Socrates, but indistinguishably mixed together with (*indistinguibiliter immiscetur*) passive conception, i.e. the formation of a concept grasping Socrates (**c**). A concept of Socrates, then, is Socrates as conceived, it is Socrates as an object of the intellect. Upon intellectual acquaintance, Socrates as really existing is converted through the act of conception, i.e. by being conceived, into Socrates as intentionally existing. And yet Socrates' intentional existence is entirely rooted in Socrates himself, since it *is* Socrates; the act of the senses or intellect is merely bringing this intentional existence to actuality by facilitating Socrates appearing to a perceiver or understander. Auriol's arguments for this position boil down to saying that any concept with its own real being – whether that be a species, an act, or a Platonic form – would stand in the way of our direct cognition of extramental things. Thus, while Auriol does envision a role in the cognitive process for mental representations and 'intermediaries' (like species – **(a)**), nevertheless his goal is to ensure that they play as minor a role as possible in what we actually know (i.e., the thing itself); in a sense, for Auriol, concepts are 'invisible', since they merely are the intentionality by which the mind knows the object. (On Auriol's theory of concept formation, see Friedman 1999, forthcoming-a.)

5 Durand of Saint Pourçain

a. It must be said that sensing and understanding do not indicate anything real over and above the sense or the intellect, that is to say anything making real composition with them, and this is clear in many ways, first from the nature of an operation in its own right and absolutely, as follows. First act is form, just as the intellect in a human being or heat in fire; but second act is operation, e.g., understanding or heating or making hot, and so on about similar things. But operation cannot be a form distinct from [the form] that is the first act, since in that case the operation would not be second act but first. For each and every substantial or accidental form indicates a first act. And further, if the operation were in its own right a form, then it would have an operation, and this would proceed on to infinity, because there would [always] be a form of a form and an operation of an operation. That is why it is better to stop at the first, namely that the form's operation is not a form added to it. (Durandus de S. Porciano, *Scriptum super IV libros Sententiarum* II.1–5 (156–157, 284–297))

b. Whenever first and second act perfect a thing, not absolutely but in respect to something else … then the first act bears that respect as a potentiality, but the second act as an actuality, and in such [acts] the thing is not always in first and second act simultaneously, but it sometimes happens that it is in first act without being in second act … The intellect or the intellective principle and [the act of] understanding are to be numbered among those sorts of acts, for each [of them] is said not utterly absolutely but in respect to the intelligible, and the intellect bears this respect as a potentiality but [the act of] understanding as an actuality. On account of which, someone with an intellect does not always understand, since an intelligible [object] is not always present to that person. Through what, then, is the power of understanding reduced to its act? It must be said … through what gives it what is understood per se, because giving what is understood … gives what is intelligible, because to have an intellect is to understand a present object. But the object presented, or what presents the object, is the cause sine qua non, since understanding is not a strictly absolute perfection, but in comparison to another. (Durand, *Scriptum super IV libros Sententiarum* II.1–5 (160–161, 394–401, 409–421))

c. Beneath each and every genus one finds differentia and incompossible species; disparate species beneath one and the same genus are incompossible, because among them all there is some contrariety, although indeed not perfect [contrariety], as is clear about white and black and the mediate colours. But among acts of understanding one must assign contrary and incompossible ones. Therefore, by a parity of reasoning, all other acts of understanding are incompossible. (Durand, *Quaestiones de libero arbitrio* 3 (491, 37–41))

d. Again, when [a number of] things are understood as compared [to one another], then either <1> all of them or <2> none of them or <3> some but not others are understood by a single act. It cannot be claimed that some but not others [are understood by the single act], because there is no greater reason for some [to be understood by that act] than for the others; therefore [it must be] either all or none. <1> If it is all [of them], then I have my point [i.e., the unity theory of the mental proposition is true]. <2> If it is none [of them], then the intellect composing and dividing the predicate with the subject does not do this through one act but through several, namely through an act of an undivided understanding with respect to the subject, and similarly with respect to the predicate. But on the contrary: composition and division do not consist in what is common to composition and division; but composition and division are united in the simple understanding of the terms; therefore, etc. (Durand, *Quaestiones de libero arbitrio* 3 (491, 13–21))

Durand views the concept as the intellectual act itself, and moreover he claims that the intellectual act adds nothing real to the intellect entertaining the act. He offers as an argument for this view his interpretation of the well-known Aristotelian first act/second act dichotomy: the intellect is a form, i.e. first act,

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its operation is second act; but the operation cannot itself be a form or quality (i.e. something with its own real or absolute being), because then the operation itself would be first act and not second act or operation at all, and (we can conclude the argument) we would never actually understand. Moreover, surely if the absolute form as first act had an absolute form or quality as its operation, then this absolute quality would in turn have an absolute quality, and so on ad infinitum (**a**). That the intellect's act is an absolute accident makes no sense to Durand, and therefore he insists that the intellectual act is a relational accident, and on account of this and of Durand's unusual theory of the ontology of the category of relation, his theory of concepts is extremely distinctive. For Durand, no relational accident has any reality of its own, it is merely a way that its foundation exists, and it takes all the reality it has from its foundation. Thus, the intellect's act, i.e. a concept, since it is a relational accident, is merely a way that its foundation, the intellect, exists **(a-b)**. It follows that the intellect does not gain anything, nor is it altered in any absolute or concrete way, by this act. Indeed, Durand says explicitly **(b)** that the object is a mere sine qua non cause of the intellect's having its act: since 'to have an intellect is to understand a present object', the intellect is 'released' into its activity upon the presentation of an intelligible object, with the result that the object has no absolute effect on the intellect. For Durand, then, a concept merely marks or registers that the intellect stands in a relation to an object. Interestingly, Durand's highly minimalist act theory of the mental word was criticised by Peter Auriol on the grounds that it failed to provide any explanation for intellectual memory. (Hartman 2012; Solère 2013; Friedman forthcoming-b.)

Durand, like nearly all of his contemporaries, held that the intellect can at any one moment entertain only one thought, in other words it can have only one act at a time. The major principle behind this view of Durand's is that each and every intellectual act is totally incompossible with each and every other intellectual act, and so there can never be more than one in the same intellect at the same time (**c**). This has immediate repercussions for the mental proposition: if mental propositions are like spoken or written propositions, then you would expect that a mental proposition would be composed or put together out of several mental acts, each of which takes the place of one or more of the words in the spoken or written proposition. But this is not the case, according to Durand, who articulates a 'unity theory' of the mental proposition: mental propositions are understood at once (*simul*) in one intellectual act, all the 'parts' together in an undivided unity. The gist of his position is as follows. Take any two things which have some kind of order or disposition (*ordo* or *habitudo*) to one another. For the intellect to compare those two things – as it does in a mental proposition – it has to understand

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them simultaneously in one act; according to Durand, if each of these things was grasped by its own intellectual act, there would be a cognitive gap (our term) between them, and the intellect could never bridge this gap and hence could never actually succeed in comparing the two.

Durand argues in detail for this position by a process of elimination (**d**). Take several things which are understood as compared to one another in some way, there are only three possible ways these several things can be related to one single act of the intellect: either (1) all of them are understood in one single act or (2) none of them are or (3) some are and some are not. The third option – that some objects are understood by the one intellectual act but some others are not – Durand rejects as being completely arbitrary: why would some be understood in the single act more than the others? If, on the other hand, all of the objects to be compared are understood in a single act – the first option –, then Durand has his point: any comparison between objects of the intellect, including mental predication, takes place through one intellectual act. That leaves, then, the second possibility that none of the objects are understood in one single act, and this is equivalent, Durand tells us, to saying that in mental predication subject and predicate each have their own intellectual act. But that will not work, according to Durand, because composition and division *share* the simple understanding of terms, that is to say, nothing about a term itself decides whether that term appears in a composition or in a division, any given term can appear indiscriminately in either. Durand concludes that, if subject and predicate each had their own intellectual acts, composition and division would never get off the ground, since the terms are common to them both. Thus, claiming that the subject and the predicate each have their own intellectual act gets us nowhere in explaining the comparison made by the intellect when forming a mental proposition: how would we know whether we were affirming the predicate of the subject or denying it. There would be an unbridgeable cognitive gap between the terms, and the intellect could never succeed in comparing them. According to Durand, then, the only possibility is that all the objects which are compared are understood as compared in one single intellectual act. Hence, the unity theory of the mental proposition. (Friedman 2009a, b.)

6 Thomas Wylton

a. That there can be many intellectual acts simultaneously in the intellect is proved first by considering an intellect which, in demonstrating a conclusion, reasons from principles to conclusion; second, the same is proved by considering an intellect

composing and dividing. (Thomas Wylton, *Quod in intellectu possunt esse plures intellectiones simul* (506, 1–4))

b. Considering the reasoning intellect, one argues as follows … a dialectical syllogism has in common with a demonstration, and moreover with every syllogism which does not err in form, that there is a necessary relation between the premisses and the conclusion. But, a demonstration adds this [feature] to those of syllogisms in general: that not only do the premisses necessarily entail the conclusion but furthermore they are necessary in themselves. And if someone were actually to know a conclusion necessarily, then, against the above mentioned Doctor [i.e., Durand], that person would simultaneously know that he knew the conclusion. Therefore, it is necessarily the case that, at the time that he actually knows the conclusion, he not only understands the premisses insofar as they are related to the conclusion, but he understands that the premisses are true in themselves. For if he did not know this at that time, then he would not know that he knew the conclusion. (Ibid. 507, 36–44)

c. Second, it is argued by considering the composing and dividing intellect …when dividing or composing one extreme with another [extreme], each beneath their proper concepts, then in just the way the intellect composes them, so it understands them. This is immediately proved because otherwise no intellect would know whether it composed truly or falsely. But, when composing 'man' with 'animal', the intellect composes one extreme with the other extreme, beneath the proper concepts of [these] extremes. And, in the same way when it divides 'man' from 'ass', it divides 'man' beneath its proper concept from 'ass' beneath its proper concept. Therefore, at that instant, it understands each beneath its proper concept and if this is so, it will be through different intellectual acts. (Ibid. 507, 45; 508, 18–24)

d. But this comparative act comprehends within itself the two simple [acts] through which the intellect understands each of the extremes and it compares the extremes to each other under their proper concept. (Ibid. 511, 24–26)

It appears that in the medieval university context, Thomas Wylton was the first to hold that the human intellect in this life can have more than one act at a time (**a**) and the closely linked view of the 'compositional' nature of the mental proposition. Wylton put forward various arguments for these views. He remarks that since we know that we have some demonstrative knowledge, we must be able to have more than one intellectual act at a time, since all at once we must actively know each of the two necessary premisses *and* the conclusion, and hence have three intellectual acts at once (**b**). Furthermore, the intellect when composing or dividing a mental proposition must actively understand at once both predicate and subject under their own proper concepts and hence have at

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least two acts in the intellect at once (**c**). In fact, Wylton claims (**d**) that in a proposition the intellect has a comparative act which comprehends the simple acts of the extremes and compares the extremes to each other. Thus, parallel to Wylton's argumentation in (**b**), here you have to know something actively about each term and not just their relation to each other, and this requires having more than one intellectual act at once. Just as importantly, here Wylton clearly articulates his compositional view of the mental proposition, i.e. the view on which a mental proposition requires at least three acts in the intellect simultaneously, two of those acts corresponding to the terms of the proposition, and a third act, the 'comparative act', functioning as the mental copula **(d)**. This view of the proposition is different from, e.g., the famous thirteenth-century logician, Peter of Spain's view, on which a categorical proposition is a composite of two principal parts, the subject and the predicate ('A categorical proposition is a proposition which has a subject and a predicate as its principal parts, as in "man runs"'; *Tractatus* I.6 (3, 25–26)). The three-part view of the proposition which Wylton championed will also be defended by, among others, John Buridan; see *Summulae* 1.3.2: 'A categorical proposition is one which has a subject, a predicate, and a copula as its principal parts' (John Buridan, *Summulae: De propositionibus* (31, 22–27)). (Friedman 2009a, b; on Peter of Spain and Buridan, see Maierù 2004, 41–43, Pérez-Ilzarbe 2004, 154–156.)

7 Some Fourteenth-Century Theories of Mental Language

a. … it can be said otherwise, with some probability, that the universal [i.e. concept] is not something real having subjective being either in the soul or outside of the soul but only has objective being in the soul. It is a kind of *fictum* having the kind of being in objective being that the external thing has in subjective being. (William of Ockham, *Ordinatio* 2.8 (OTh 2, 271, 14–272, 2))

b. There can be another opinion, which I think is probable: that the impressions of the soul are certain qualities of the intellect existing subjectively in the mind truly and really just as whiteness exists in a wall or cold in water. (William of Ockham, *Expositio Perihermenias*, prooemium 9 (OPh 2, 363, 4–7))

c. … just as Boethius notes in book 1 of *De interpretatione* that there are three types of discourse, namely written, spoken and conceptual – which only has being in the intellect -, so there are three types of term: written, spoken, and conceptual. A written term is a part of a proposition which is or can be seen by the bodily eye once it has been inscribed on something material. A spoken term is a part of a

proposition uttered by the mouth and apt to be heard by the bodily ear. A conceptual term is some intention or passion of the soul which, naturally signifying or co-signifying, is apt to be a part of a mental proposition and to supposit for [what it signifies]. For this reason, these conceptual terms and the propositions composed of them are called mental words by the blessed Augustine in c. 15 of *De Trinitate* and he says they belong to no language. For, they are only in the mind and cannot be uttered aloud although the spoken words which are subordinated to them as signs are uttered aloud.

I say that spoken words are signs subordinate to concepts or intentions of the soul not because they always signify the concepts of the soul primarily and properly in the proper sense of 'signs' but because spoken words are imposed to signify the very same things which are signified by mental concepts. That is, a concept primarily and naturally signifies something and a spoken word signifies the same thing secondarily insofar as the spoken word is instituted to signify what is signified by the mental concept. If that concept were to change its signification, by that fact alone the spoken word would change its signification without any new [linguistic] institution …

Now, there are some differences amongst these terms. One is that a concept or a passion of the soul naturally signifies whatever it signifies but a spoken or written term only signifies [what it signifies] conventionally. From this difference follows another, namely that the signification of a spoken or written term can be changed at [the language users'] will, whereas the signification of a conceptual term cannot be altered at the will of anyone. (William of Ockham, *Summa logicae* I.1 (OPh 1, 7–8, 13–52))

d. I say that just as spoken and written terms are certain names, verbs, pronouns, participles, adverbs, conjunctions, and prepositions, so too certain mental concepts are names, verbs, adverbs, conjunctions, and prepositions. This is clear from the fact that a mental proposition composed of concepts corresponds to every true or false spoken expression. Therefore, just as the parts of a spoken proposition which are imposed to signify things are distinct parts on account of a requirement of signification or expressiveness – since it is impossible to express by verbs and names alone what can be expressed by all the other parts of speech – so too the parts of a mental proposition which correspond to the spoken [parts] are distinct so that they can form distinct true and false propositions. (William of Ockham, *Quodlibeta septem* V.8 (OTh 9, 509, 12–26))

e. … the union of the extremes in the mind is the concept of the copula, and this is a certain quality of the mind, namely an act of understanding. And this concept is really distinct from the subject and the predicate, which are also diverse acts of understanding. (William of Ockham, *Quodlibeta septem* VI.29 (OTh 9, 695, 43–45))

f. … we should remember that which was said earlier, namely that categorematic words, which are apt to supposit, signify things by means of their concepts [and it is] according to these concepts or similitudes that they were imposed to signify. Thus, in the present passage, we call those things that are conceived by these

concepts the 'ultimate significata' but we call the concepts the 'immediate significata'. (John Buridan, *Summulae: De suppositionibus* 39, 13–18)

g. In a different way, others [e.g. Ockham] call supposition 'simple' when a term supposits for the concept according to which it is imposed, and material when it supposits for itself or another similar to itself. And this can be allowed but I do not care because I call both 'material supposition'. (John Buridan, *Summulae: De suppositionibus* 39, 5–8)

h. … yet a mental proposition consists of a combination of concepts; for that reason, it presupposes simple concepts in the mind and to these it adds a combinational concept by which the intellect affirms or denies one of these concepts of another. Thus, these presupposed concepts are the subject and predicate of a mental proposition and they are called the matter of the mental proposition because they are presupposed by the form of the proposition just as matter is presupposed by the substantial form in generation. (John Buridan, *Summulae: De propositionibus* (31, 5–12))

i. Perhaps it might be responded [to the unity theory of the mental proposition] that, although the parts of such [mental] propositions are similar and [are] even in the same primary subject [i.e. in the intellect], nevertheless different propositions are formed by virtue of differing orders in the production of their [parts] and the subject in one [mental proposition] is not the same in terms of species as it is in another, but something similar to that which is the subject in the one [proposition] is the predicate in the other; similarly, the part of the same proposition which is produced first is the subject, but [the part] produced afterwards is the predicate. – This response does not hold because this kind of successive production is irrationally posited, for since there can be, and be produced, in the intellect several acts of differing natures [at once], as will be shown in the first distinction [of this first book of the *Sentences*], it would indeed be strange if [the intellect] were not able to produce one whole proposition at once. (Gregory of Rimini, *Lectura super primum Sententiarum*, prologus 1 (34, 14–23))

Early in his career, Ockham argued for the so-called *fictum* or objective-existence theory of concepts. Essentially an act-object theory, Ockham conceived of concepts as the objects of intellectual acts which have the mind-dependent existence of being thought, a non-real kind of existence which he called 'objective' (**a**). In a middle period, Ockham hesitated between this first theory, a second theory (not much discussed by Ockham) identifying concepts as distinct from acts of understanding but real qualities of the soul nevertheless, and a third theory which he eventually and wholeheartedly endorsed. On this final mature theory, an act theory, concepts are identified as

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intellectual acts themselves and are real 'subjectively' existing qualities of the soul (by 'objective' and 'subjective', Ockham means roughly the opposite of what these terms mean today) (**b**). The concept of cat is just thinking-of-cats. The objects of intellective acts, i.e. of concepts, are those individual entities that concepts apply to.

Ockham approves of Boethius's division between three ordered kinds of discourse: spoken, written, and mental (**c**). The terms of spoken and written languages are outwardly perceptible; they are utterances and markings. The terms of mental language are internal intentions or impressions of the soul, namely concepts. All three terms signify things. Yet, concepts, that is mental terms, signify things *naturally* whereas spoken and written terms signify things *conventionally* or derivatively. Ockham thinks that concepts are natural signs because they are the result of a psycho-physical causal process, engendered by our direct experience of the singular objects that they are signs of. Spoken and written terms are, as Ockham puts it, 'instituted at the will' of the users of a particular language, i.e. English or Latin, to signify what they signify by virtue of having been subordinated to or associated with a given concept. Spoken and written terms inherit their signification from the conceptual terms that they are associated with but still immediately signify things. Consequently, the terms of spoken and written languages, often called 'conventional languages', are diverse and mutable while conceptual terms are uniform across all languages. As the subject and predicate terms of mental propositions which have a determinate signification (i.e., categorematic terms), concepts acquire the feature of supposition. Supposition circumscribes what the terms of a given proposition refer to, which is context-sensitive and dynamic; it is, therefore, crucial for establishing the truth conditions of propositions. Ockham identifies three forms of supposition. First, in personal supposition and its many modes, terms supposit for what they signify, e.g. the term 'horses' in 'horses are four-legged' refers to horses. Second, in simple supposition, the terms supposit for a concept, e.g. the term 'human being' in 'human being is a species' refers to the concept of human being. Third, in material supposition, the terms supposit for spoken or written words, e.g. 'man' in 'man is a three-letter word' refers to the English word 'man'. Concepts, as the terms in mental propositions, can supposit for what they signify (personal supposition), for themselves (simple supposition), and for spoken or written words (material supposition).

Mental language has a sophisticated grammatical structure which differs somewhat from that of conventional language (**d**). It includes all those elements which affect the truth value of a proposition, namely: nouns and adjectives ('names' to Ockham), verbs, adverbs, prepositions, conjunctions,

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and logical particles such as 'all', 'no', 'some', 'because', etc., as well as the copula. Such logical particles are known as syncategorematic terms and they have no independent signification but serve to structure and modify the signification of the terms within propositions which do (the categorematic terms). Various grammatical accidents are present in mental language, e.g. the case and number of nouns, the number, mood, and tense of verbs. Excluded from mental language but nonetheless found in conventional language are all cases of synonymy including pronouns which redundantly refer to their antecedent nouns and participles which are eliminated in favour of verbs. The grammatical accidents of gender, declension, conjugation, and inflection are also absent from mental language. Ockham usually subscribes to the view that a mental proposition is composed of categorematic conceptual terms (subject and predicate) and any given number of syncategorematic terms, including a copula. The structure of a mental proposition is largely mirrored by the structure of the corresponding proposition in conventional language, with the above noted exceptions. Propositions, both in mental and conventional language, signify the entirety of what their terms signify. According to Ockham, they do not signify facts or states of affairs but rather the individual entities which their component terms signify. All of this intricate theory concerning the structure of mental language would lead us to deduce what elsewhere Ockham explicitly claims **(e)**: that he holds a compositional theory concerning the nature of the mental proposition, according to which a mental proposition is composed of subject, predicate, and copula, each of them a distinct quality of the mind, i.e. a distinct mental act. (See, e.g., Pasnau 1997, 277–289; Panaccio 2004.)

Buridan argued, unlike Ockham, that spoken and written words immediately and directly signify the concepts that they are subordinate to although they ultimately signify the very things that are conceived by concepts (**f**). Concepts, according to Buridan, are the means by which spoken and written words signify what they signify. In this regard, Buridan adopted the more traditional and majority position, stemming from Boethius, that spoken and written words immediately signify concepts and mediately signify things by way of concepts.

A second divergence between Ockham and Buridan lies in their treatment of supposition and its relevance for mental language. Buridan, unlike Ockham, admits only personal and material supposition, the latter of which for Buridan subsumes what Ockham had called simple supposition (**g**). Furthermore, Buridan excludes material supposition from mental language: mental terms only have personal supposition. Whereas for Ockham a mental term can simply supposit for itself as a concept, for Buridan a mental term can only

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personally supposit for what it signifies. Thus, according to Buridan, the spoken word (utterance) 'human being' in the spoken proposition, 'human being is a species' materially supposits for the concept of a human being. In the corresponding mental proposition, the term 'human being' is a concept which personally supposits for the concept of human being, it does not simply supposit for itself as Ockham maintains. One advantage of Buridan's approach, often pointed out in the literature, is that in eliminating material supposition from mental language, Buridan leaves no room for any ambiguity in mental language: its terms can only ever supposit for what they signify and nothing else. It should be added that Buridan **(h)**, like Ockham (and Wylton), opts for a compositional view of mental language on which the mental proposition is composed of a concept of the subject and a concept of a predicate which act materially with respect to the intellect's formal act of affirming or denying the predicate of the subject.

Gregory of Rimini argues for a unity view of mental language because he denies that, in an immaterial substance like the intellect, an order could be introduced into the components of a mental proposition, corresponding to the order in written or spoken propositions, such that one component served as subject and another as predicate, or the very same terms can be used to form distinct mental propositions. Rimini gives a possible counterargument (**i**): the mental proposition formed is determined by the temporal or logical order in which the terms are produced. Rimini answers this possible criticism basically by saying that it is simply more plausible to hold his own unity thesis of the mental proposition, since the type of successive productions of the terms advocated in the counterargument is irrational. The discussion does not end here: Gregory's version of the unity theory of the mental proposition formed the point of departure for early sixteenth-century discussions on the issue. (See e.g. Klima 2009, 37–120.)