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Ockham on Concepts

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It should be mentioned that some of the developments to be read here partly correspond to previously published papers of mine:

- Chapter 1 is closely based on an article originally written in French ('Intuition, abstraction et langage mental dans la théorie ockhamiste de la connaissance', Revue de Métaphysique et de Morale, 97/1, 1992, pp. 61–81).
- A preliminary version of chapter 4 has circulated for quite some time among specialists in an informal ‘prepublication’ format ('Connotative terms in Ockham’s mental language', Cahiers d’épistemologie, no. 9016, Montréal, Université du Québec à Montréal, 1990, p. 21), and a slightly different one later appeared in French in an Italian journal ('Guillaume d’Ockham, les connotatifs et le langage mental', Documenti e studi sulla tradizione filosofica medievale, 11, 2000, pp. 297–316).
- Chapter 5 freely makes use of ideas about nominal definitions that I originally presented at the XIIIth European Symposium for Medieval Logic and Semantics held in Avignon in June 2000, in a contribution that was subsequently published in the acts ('Connotative concepts and their definitions in Ockham’s nominalism', in La tradition médiévale des Catégories, Joël Biard and Ariane Rosier-Cataf, eds, Leuven: Peeters, 2003, pp. 141–55).
- Section 1 of chapter 9 is a revised version of a recent paper in French ('Guillaume d’Ockham et les syncategories mentaux: la première théorie', Histoire, Épistemologie, Langage, 25/2, 2003, pp. 145–60).

I am grateful to the editors and publishers involved for their role in the original dissemination of this material. The act is that this book found its motivation in the extraordinarily stimulating – if sometimes critical – reactions these publications, especially the first two ones, elicited, both in print and in private conversations, from a number of outstanding scholars whose names will be found again and again in the following pages. Let me single out a this point those of Joël Biard, Elizabeth Karger, Calvin Normore and Paul Vincent Spade in particular, to whom this whole work, while disagreeing with them on certain points (and sometimes crucial ones), remains in the end deeply indebted.

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Most of all, finally, I should like to thank Cecile Juneau for her remarkably patient and professional secretarial work upon the whole manuscript over the years, and my beloved companion Claude-Elizabeth Perreault for her constant and affectionate support day after day while I was often single-mindedly working at it.

The numerous remarks, questions and objections that were raised on those occasions by colleagues and students, Chapters 3, 5, 6 and 7, most saliently, are elaborations on the Pierre-Abélard Lectures I gave at the University of Paris 4-Sorbonne in March 2001. Special thanks are due, in this respect, to Cyrille Michon, who not only organized these lectures, but who also provided useful and penetrating commentaries on each one of them when they were delivered.

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Introduction

This book is an exercise in interpretation. My background conviction is that William of Ockham's nominalism, even if elaborated in the distant context of the early fourteenth century, still provides a challenging and fruitful body of theory to be in dialogue with today. In philosophy of mind and language, in particular, Ockham's obstinate refusal to countenance anything but concrete singular beings in the real world, and the way he knits together on this basis an intriguing array of theses and arguments about mental language, intentionality, and reference, could have, I suspect, a healthy counterbalancing effect against the prevailing fondness in these fields for abstract entities of all sorts: general properties, natural kinds, linguistic types, Fregean propositions, and what not ... But surely, the prerequisite for these appealing virtues to be actualized is that the theory be well understood! And there still exists, I am afraid, wide disagreements among specialists as to what exactly Ockham's nominalistic programme amounts to, especially with regards to cognition. This is what I want to address here.

The focus will be on concepts - conceptus in Ockham's vocabulary - taken by him as the basic units of mental representation. Several discussions have been going on around Ockham's theory of concepts in the last fifteen years or so, in the aftermath of the remarkable critical edition of his philosophical and theological writings completed at St. Bonaventure University in the late 1980s, and of the publication in 1987 of Marilyn Adams's landmark synthetical study, William Ockham. My aim in the present work is to propose a thorough presentation and defence of how I understand Ockham's positions on the matter in the light of these recent developments.

The first three chapters will deal with the basics of Ockham's approach: that concepts are the ultimate components of the language of thought, and that they are normally acquired as a result of natural causal processes triggered by direct empirical encounters with real individuals (chapter 1); that concepts are to be identified with intellectual acts, rather than with purely intentional objects (chapter 2); and that they are signs in the logical sense, and can be studied, consequently, with the technical apparatus of grammar and logic (chapter 3). The next three chapters will be devoted to one salient and far-reaching debate in recent Ockhamistic studies, in which the very viability of the theory turned out to be at stake: is our whole stock of concepts supposed to be constructed by the mind out of a limited number of simple non-relational natural kind concepts, by assembling definitions? In other words: how reductivistic is Ockham's doctrine of concepts, with respect in particular to relational terms? It will be argued that contrary to a widespread opinion, Ockham can, and does, accept what he calls 'connotative' terms - relational ones, especially among the basic units of the language of thought (chapter 4). His conception of what definitions are expected to accomplish in such cases will be made explicit (chapter 5); how such concepts are supposed to be acquired will be explained (chapter 6). In the last chapters, finally, I will discuss three more questions that come...
out as crucial for Ockham's theory of concepts: in what sense could he subscribe to the traditional saying that concepts are *similitudes* of things (chapter 7)? How are the logical constants implemented in the mind (chapter 8)? And how do spoken and written words receive their meanings (chapter 9)?

The emphasis all along will be on currently controversial issues of interpretation, and the developments will be supported by careful analysis of numerous relevant passages and detailed discussions of alternative readings, with some assessment, here and there, of criticisms addressed to Ockham, in so far, at least, as they rest on what I take to be misunderstandings. My hope, in so doing, is that the book be useful to medievalists, of course, but also to philosophers at large and cognitive scientists as well, as an in-depth exploration of one of the truly great theories of intellectual representation in the history of Western thought.

It so happens that the main points over which disagreements emerged in the Ockham literature of the last couple of decades have to do, ultimately, with some of the most central — and most difficult — issues in the current hectic search for a satisfactory theory of the mind: what are the basic components of human thought? How can they be representations of anything? I will not engage here in a direct philosophical discussion of Ockham's doctrine on these points, or in a systematic comparison of it with today's approaches; but my working assumption is that a precise and accurate understanding of this wide-ranging theory has now come to be highly desirable, and that the best way of achieving just that at this point is by critically reviewing the detailed arguments of recent Ockham scholarship.

In accordance with the usual requirements in the field, the account I will propose heavily rests on text analysis, and many of the relevant passages will be quoted and scrutinized in the exposition process. I know of no better way to proceed in such affairs: historical monographs in philosophy are, first and foremost, a matter of reading texts and understanding them. With Ockham, especially, we are lucky enough to be dealing with such a rigorous writer that most of the current interpretative disagreements about his theory of concepts can be settled, I contend, on the basis of what he actually wrote. In many cases, admittedly, the reconstruction needs to be developed beyond what Ockham himself cared to, but I tried to stick, in so doing, to what he is committed to, given what he explicitly holds; such elaborations, anyway, will be clearly indicated when they occur.

The theory that will emerge is surprisingly rich and unified, but quite different on the whole from what it has often been taken to be. The prevailing dogma in the last decades was that Ockham's approach is a canonical — and especially stringent — variant of the so-called 'Classical' (or 'Definitional') view of concepts, according to which most of our intellectual representations are in fact complex constructs made out of a limited number of primitives; and that the mental language he postulates should be structured like a logically ideal language *à la* Frege-Russell. One of my main points in the book will be that this standard reading is seriously misleading on many counts. What Ockham proposes will turn out to be closer in the end to what we call today an 'atomistic' theory of concepts, as characterized, for example, by the American philosopher Eric Margolis: a theory, namely, 'according to which what makes a concept the very concept that it is is not how it is related to certain other concepts but how it is related to the world.' However general they can get, simple concepts, in Ockham's approach, ultimately depend, for what they represent, on their particular causal links with concrete episodes of direct acquaintance; this holds for (at least some) relational concepts as well as non-relational ones.

Many striking similarities with recent ideas in analytic philosophy of mind and language will become more and more apparent, as we go on, to those who are familiar with the writings of people like Saul Kripke, Hilary Putnam, or — most of all — Jerry Fodor, that is, a resolute commitment to the language of thought hypothesis and to semantical atomism, a strong innatist component, and even some externalistic tendencies. Yet the really distinctive feature of Ockham's theory of concepts, as will be stressed all along, is how it manages to harmonize all these interesting trends within the rigid constraints of a radically nominalistic ontology. There lies in the end its deepest lesson.

Notes

1. English translations will always be provided for quotes occurring within the main body of the text, with the Latin original versions to be found in the footnotes. Unless otherwise indicated, the translations are mine.

Chapter 1

Intuition, Abstraction and Mental Language

On the matter of concepts, Ockham, it is striking, has two distinct terminologies. On the one hand, he regularly resorts to the vocabulary of *cognitio* or *notitia*, and to a distinction he adapts from John Duns Scotus between *cognitio intuitiva* and *cognitio abstractiva*. On the other hand, he takes more seriously than anybody before him the idea that conceptual thought is a sort of inner discourse, an *oratio mentalis*, to which he systematically applies the semantical vocabulary of terminist logic (*significatio, suppositio, connotatio*, etc.), which was in use since the twelfth century for the analysis of spoken or written languages.

How are these two apparatuses linked to each other? This is, curiously enough, a point about which there is no very elaborate discussion in Ockham’s own texts. Most of the passages which make use of one of the terminologies either entirely ignore the other, or give it but a secondary place; those in which both can be found do not organize them in a very explicit theory. Yet this is something we need to be clear about if we want to understand Ockham’s approach to concepts with any precision, since concepts, in his most mature theory, are simultaneously identified both with cognitive acts and with mental signs susceptible of various referential roles in propositional contexts. Chapters 2 and 3 will come back in more detail to these ideas of cognitive acts and mental signs respectively, but it will be useful to elucidate first, in the present chapter, how the Ockhamistic doctrine can coherently equate the intuitive and abstractive acts of cognition with significant terms, capable of occurring, in person so to speak, within mental propositions.

For the reader unfamiliar with the field this development will serve as a general introduction to Ockham’s epistemology of concepts, and the first two sections of the chapter will be devoted to short, non-controversial presentations of the doctrine of intuitive and abstractive cognitions (section 1) and of the doctrine of mental language (section 2). The main goal of the chapter, however, will be to establish a number of non-trivial points about how Ockham’s theory of concepts maps the cognitive states corresponding to intellectual intuitions and abstractions into logical or semantical categories (sections 3–5). An interesting upshot of all this will be that, contrary to what several recent commentators have suggested, Ockham’s theory of concepts can legitimately be labelled as a brand of representationalism (section 6).

I. Intuitive and abstractive cognitions

Ockham’s theory of intellectual acts is expounded mainly in the Prologue of his *Ordinatio* and, in a much shorter version, in some of his *Quodlibetal Questions*. The
precise notion of an act which is at work there obviously needs further scrutiny and we will come back to it in chapter 2, but let us be content at this point with a preliminary understanding of mental acts, in Ockham's sense, as being those mental states that are actually thinking, willing or perceiving something. This is basically what contemporary philosophers of mind call 'mental episodes'. Some mental acts in this sense are acts of the will, some are acts of desire, some are mental acts we are interested in, like perceiving something. This is a very basic notion of the philosopher's mind.

In particular, a judgment is the act of apprehending a proposition, on the truth value of which the agent does not yet commit himself, but which is usually presupposed by the judgment. The act of apprehension, on the other hand - which always precedes the complex apprehension and makes it possible - further subdivides into intuitive cognition and abstractive cognition; this is the distinction that will now detain us.

The intuitive intellectual cognition of a thing, William explains, is this simple awareness of that thing in virtue of which the intellect can judge as evident that the thing exists, if it exists, or does not exist, if it does not exist. More generally, an intuitive cognition of something is this awareness of that thing which, under normal circumstances, causes the agent to form certain judgments about that thing.

In the natural order of things, intuitive cognition always corresponds to the simple apprehension of the thing, and immediate judgment of the agent. If the thing is not there in front of me, my cognition of it can only be abstractive. That Ockham does not simply express himself in this way is due to the fact that he is anxious, for theological reasons, to preserve God's omnipotence, which he sees as limited only by the principle of non-contradiction - a merely logical rather than real limitation - and that, consequently, he wants to allow for the supernatural possibility by which an agent judges a certain proposition to be evident or false, as contrasted with the act of apprehension, which is a mere intellectual grasping. The latter in turn can be either complex or incomplex.

The most salient example of a complex apprehensive act is the formation of a mental proposition, on the truth value of which the agent does not yet commit himself, but which is usually presupposed by the judgement. The incomplex apprehensive act, on the other hand - which always precedes the complex apprehension and makes it possible - further subdivides into intuitive cognition and abstractive cognition; this is the distinction that will now detain us.

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Ockham realized at some point—and this is a very deep intuition in his mature system—that the various functions he wanted to attribute to concepts, in so far precisely as they were functions, could adequately be fulfilled by the cognitive acts themselves: "for an act of understanding can signify something and can suppose something just as well as any sign; and there is no point therefore in postulating anything over and above the act of understanding." Such an act can be classified, within the framework of an Aristotelian ontology, as a quality of the mind. Reducing the concept to it allows Ockham's nominalism to dispense with the special mode of existence that was required to accommodate the fiction, and to stick, in psychology as well as in physics, to a very simple naturalistic ontology: with nothing but singular substances and qualities. Here is a salient case where Ockham explicitly invoked the famous Razor Principle.

3. Abstraction and universals

Restricting ourselves to Ockham's later theory, we are now in a position to reformulate our original question as having to do only with mental acts: what, we are asking, is the relation between the one hand those mental acts which Ockham views as conceptual signs and which can occur as parts of mental propositions and have a suppositio, and on the other hand the intuitive and abstractive acts that were described in section 1 above?

Let us begin with the case of abstraction. The answer here is very simple. In the following identification: all simple abstractive acts of cognition are general terms in the mental language. The mental state of abstraction, in other words, is itself a categorical conceptual term, capable in principle of being the subject or predicate of a mental proposition. Concepts, just like the words of spoken and written languages, are signs, but their significance is natural and primitive with respect to that of spoken and written words, which is conventional and derivative— or subordinated (subordinata).

This conceptual discourse, which is equated with thought itself, is endowed with a syntactical structure, very much like that of the conventional external languages. Most of the standard grammatical categories of Priscian or Donatus are borrowed by Ockham for the analysis of inner discourse. There, he claims, we have nouns, verbs, adverbs, conjunctions and prepositions; we have singular or plural phrases, case-predictions for nouns, tenses and modes for verbs, and so on; in short everything which is 'necessary for signification' (proprie necessitatem significationis).

Even more importantly, the so-called terminist logic, which had been developed in the twelfth and thirteenth centuries, is now applied not only to spoken or written languages, as in Peter of Spain, William of Sherwood, and the other early contributors to the logica modernorum, but also—and ever primarily—to mental terms and propositions. Concepts are said to have a significance (significatio) or a connotation (connotatio) when they are considered in themselves, and a referential function (or suppositio) when they occur within propositional contexts. It is one of Ockham's major innovations to have systematically transposed the terminist logic he had learned at school into a theory of discursive thought.

With respect to the mode of existence of conceptual signs, it is now well known that Ockham has changed his mind in the course of his career. In the first redaction around 1317-19, he hesitantly subscribed to the so-called fictum-theory, according to which a concept in the mind is a purely ideal object, which has no reality other than that of being the intentional correlate of a simple cognitive act of apprehension. After a short period of oscillation—probably around 1320-21—he finally adopted in his Quodlibetal Questions on Aristotle's Physics, in the Quiddital Questions and in the Summa Logicae a very different view, known as the actus-theory, according to which concepts, rather than being the objects of certain cognitive acts, are directly identified with these very acts themselves.
have in this life an abstractive cognition which is both simple and properly singular. The reason for this is that a concept for Ockham is always an intellectual image of some sort, a *simulitudo* of what it represents. But what represents anything in virtue of being an image of the same degree whatever is exactly – or relevantly – similar to that thing. My mental image of Mary in her absence is to the same degree an image of any other being who happens to look like her in the relevant respects. In so far as it functions as an image, this representation, then, is intrinsically general: it is equally capable in principle of representing a plurality of different entities. All simple abstractive cognitions, for Ockham, are like that: they are all of them general, in principle, in so far as their representational function hangs upon some sort of similarity.\(^2\)

The possibility of a properly singular abstractive cognition of something is left open, nevertheless, but it says, through an appropriate combination of simple terms, none of which would itself be properly singular. I can think about Mary after all, rather than about any twin she might have, but the concept I should form in order to do so will have to be a mental compound rather than a simple intellectual image.\(^3\) Properly speaking, there are no proper names among abstractive simple concepts.

This amounts to saying that a simple abstractive act is always in itself a universal. Universals in the Porphyrian sense – genus, species, *differentia*, *primum* and accident – were traditionally defined as what can be predicated of many. But, as Ockham frequently insists, only a sign can be predicated of anything.\(^4\) The possibility of a properly singular abstractive cognition of something is left open, nevertheless, but it says, through an appropriate combination of simple terms, none of which would itself be properly singular. I can think about Mary after all, rather than about any twin she might have, but the concept I should form in order to do so will have to be a mental compound rather than a simple intellectual image.\(^5\) Properly speaking, there are no proper names among abstractive simple concepts.

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This amounts to saying that a simple abstractive act is always in itself a universal. Universals in the Porphyrian sense – genus, species, *differentia*, *primum* and accident – were traditionally defined as what can be predicated of many. But, as Ockham frequently insists, only a sign can be predicated of anything.\(^4\) The possibility of a properly singular abstractive cognition of something is left open, nevertheless, but it says, through an appropriate combination of simple terms, none of which would itself be properly singular. I can think about Mary after all, rather than about any twin she might have, but the concept I should form in order to do so will have to be a mental compound rather than a simple intellectual image.\(^3\) Properly speaking, there are no proper names among abstractive simple concepts.
INTUITION, ABSTRACTION AND MENTAL LANGUAGE

'Socrates is here'? And a similar query arises about the predicates of propositions such as 'this is Socrates' or 'some man is Socrates'. To these questions, Adam's answer is indeed the right one, at least for Ockham's later theory. It is true that in the original reading of the Ordinatio, Ockham readily spoke of the 'extremes' of a mental proposition (that is, its subject and predicate) as being objects of intuitions, rather than intuitions themselves. But these passages were written while he was still subscribing to the 'extremes' theory of concept. The winter then agrees with his senior colleague Walter Burley that 'singular mental propositions can be said to have as their subjects – and in some cases, as their predicates – the very external things they are about. It is not the case, however, that the subject of a mental proposition like 'Socrates exists' or 'Socrates is white', as formed by the agent in the presence of Socrates, is now seen as a sign. And what else could this sign be but the intuitive cognition itself, just as Adams says?

When the intellect apprehends a singular thing by intuition, it forms in itself an intuitive cognition, which is a cognition of this singular thing only, and is capable by its very nature to supposit for this singular thing. And just as a spoken word conventionally supposits for its object, similarly this [intuitive] intellect naturally supposits for the thing it is an intellect of.

Here is a case where the epistemological terminology of the cognition intuitiva is clearly connected with the semantic vocabulary of supposition theory. And supposition, for Ockham, belongs to significant terms in so far only as they are taken as subjects or predicates within propositions. It follows that the intellectual intuitive act is an integral part of the language of thought, and that it can be subject or predicate of mental propositions, where it can display semantical properties such as a supposition.

This is an intriguing idea, and although Ockham did not work it out in detail, it deserves a bit of elaboration. The intuitive act, for Ockham is a real thing (a res absoluta), namely a way the intellect by intuition apprehends the things we call its objects. It is, therefore, analogous to what we call a sign.

But unlike a sign, an intuitive act is an integral part of the language of thought; and that it can be subject or predicate of mental propositions, where it can display semantical properties such as a supposition.

What is required here is a special semantical and syntactical category, which presents strong similarities with what Bertrand Russell used to call 'proper names in the logical sense', but which is even more stringent. A logically proper name, in Russell's view, is never given but to a single referent, the speaker must at some point have been in direct contact with, this episode of direct acquaintance having fixed once and for all the referent for this particular designation. Ockham's intuitive cognitions are direct designators too: they do not have descriptive contents, any more than Russell's logically proper names do. And they also presuppose a direct acquaintance of the agent with the object. The requirement of acquaintance, however, is even stronger in the case of Ockham's intuitive cognitions, since such cognitions simply cannot occur (in the natural order) in the absence of their objects.

Once the speaker has been in direct contact with a given referent, she can, in Russell's view, use its logically proper name, even when the thing is not present in the actual order of things. But unlike a sign, an intuitive act is an integral part of the language of thought; and that it can be subject or predicate of mental propositions, where it can display semantical properties such as a supposition.
I will call them ‘rigid deictics’, since they literally show their objects (this is the **deixis** aspect) and never change them (this is the **rigidity**). They refer to their objects without the help of any form of description, of any general concept, or of any intermediary whatsoever. They are not repeatable at will, but they nevertheless fully belong to the language of thought in so far as they can be subjects or predicates of mental propositions, and in so far as their presence within these propositions directly influences their truth-conditions and inferential roles. They can be identified neither with ordinary proper names, nor with spoken or written demonstratives, and not even, strictly speaking, with Russell’s logically proper names. Ockham’s semantics turn out to be suggesting here – with being clearly conscious of it himself – a non-trivial enrichment of the general syntax of language, a new ‘part of speech’, which could exist only in the language of thought.

5. Mixed cognitions and singular terms of the third type

Let us come back now to the third sort of singular terms listed by Ockham, those that are composed of a demonstrative accompanied by a common noun, such as ‘this man’. If, as we are now entitled to admit, the utterance of a spoken demonstrative is normally associated with an intuitive cognition in the mind of the speaker, such complex phrases as ‘this man’ must also correspond to mental acts, both an intuitive act and an abstractive act. Intuitions and concepts are irreducibly distinct mental signs. Are we to grant, then, that a general term can be somehow incorporated within an intuition, and that some intuitive cognitions can have a descriptive content after all? The question is important for a correct understanding of how intuitions and concepts are connected with each other in Ockham’s epistemology. And it has to be answered in the negative: the mental cognition corresponding to a phrase like ‘this man’ must be a compound, just like the spoken phrase is. What it is composed of is an intuitive act on the one hand (corresponding to ‘this’) and an abstractive act on the other hand (corresponding to ‘man’). This is what I will call a mixed cognition: a complex mental term ‘black horse’ can supposit only for those beings which are signified both by ‘black’ and by ‘horse’; if there were none, the complex term ‘black horse’ would supposit for nothing.

This result can be directly transposed into mental language. The singular mental term corresponding to ‘this man’ must be seen not as an intuitive act internally endowed with a conceptual content, but as a mixed cognition, a complex mental term composed of an intuitive cognition (corresponding to the demonstrative) and an abstractive cognition (corresponding to the common noun). Such a compound can occur within a mental proposition, either as subject or as predicate. If it does, it will then precisely signify the one singular significate of the general concept which also happens to be the object of the intuitive cognition; if there is none, its supposition will be empty. Since it is thus possible that such a complex term represents nothing in certain contexts, even in the natural order, it cannot as a whole be identified with an intuitive act: a mental proposition of the form ‘this F exists’ could turn out to be false! The intuitive and the abstractive cognitions, therefore, can combine with each other to form a complex singular term in the mental language, but they do not merge into one another. Each one keeps its identity and function. Intuitions and concepts are irreducibly distinct mental signs.

6. Ockham’s representationalism

The Ockhamistic mapping of semantics into epistemology thus yields the following results:

(1) All simple abstractive acts are general terms in the mental language; this is precisely what a universal amounts to.

(2) Intellectual intuitive acts are singular terms in the mental language; they can be subjects or predicates of mental propositions, and they can, as such, supposit for their objects.
There are mixed cognitions, composed of at least one intuitive act and one abstractive act; they are complex singular terms in the mental language. All of these are signs themselves. A cognitive act, whether intuitive, abstractive or mixed, is a distinct intuitive acts, or similarity in the case of abstractive acts. These acts are of such a nature, moreover, that they can be parts of mental propositions and influence their truth-conditions and logic, as well as their epistemic attractiveness for the agent. There is, it seems to me, a deep wisdom in this doctrine, which contemporary philosophy of mind and language should ponder. It provides a reasonably simple picture of the cognitive language: without requiring any special ontological enrichment: no real universals out there in the world, no ideal beings, for Ockham, is not misleading: the agent in such cases correctly judges that the immediate object of cognition is always a representation rather than the external thing itself; and 'direct realism' in her vocabulary, simply is the negation of this thesis. It is straightforward that Ockham's later theory of cognition is a case of direct realism in this sense, and not of representationalism, since both intellectual intuition with that of a mental language, and provides intriguing suggestions for a semantical approach to our understanding of singular things and its integration within discourse thought. Ockham's epistemology, at this point, turns out to be far less 'anti-representationalist' than that of several recent commentators have taken it to be. Of course, we have to be careful with such polymorphic labels. Marilyn Adams, for example, contrasts two approaches to epistemology, which she respectively calls 'direct realism' and 'representationalism', and she unsurprisingly associates Ockham with the former. Given what she means by those terms, I have no quarrel with that. What Adams calls 'representationalism' is the doctrine according to which the immediate object of cognition is always a representation rather than the external thing itself; and 'direct realism', in her vocabulary, simply is the negation of this thesis. It is straightforward that Ockham's later theory of cognition is a case of direct realism in this sense, and not of representationalism, since both intellectual intuitions and concepts are identified, in this theory, with cognitive acts having (in most cases) external things as their immediate objects. These cognitive acts, however, are themselves seen by Ockham as representations. A mental representation in contemporary philosophy of mind is usually taken to be a mental token capable of playing a causal role within the mind and of referring to something other than itself, which it can stand for in mental computations. Cognitive acts, for Ockham, are precisely like that: both intuitive and abstractive acts are real things within the mind, both are simulacrae of their objects, both are signs capable of suppositing for them in mental propositions, and both are elements of causal chains in the mental life of human agents. If representationalism is defined — as it seems natural to do — as any epistemological theory that if, in its mature version, postulates intermediate mental objects for cognitive acts, its account of cognition always requires, nevertheless, a third entity between the mind and the external things: the cognitive act itself, which is indeed, whether intuitive or abstractive, a semantical representation.
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14. On Ockham's theory of intellectual abstrains, see in particular Prooem. III, q. 7, OTh VI, pp. 192–219, and Quodl. III, q. 20–21, OTh IX, pp. 211–8; also chapter 2, section 1 below. The theory of memory, on the other hand, has already been studied by Adams 1987, pp. 515–25, who shows, in particular, its evolution in Ockham's works.


17. See SL I, OPA I, pp. 11–14; and Quodl. V, q. 8, OTh IX, pp. 306–13. Ockham misses a doubt as to the presence of participles and pronouns in mental language. Interjections, on the other hand, are ignored, and grammatica genders are explicitly excluded as devoid of semantical relevance.

18. For example, the various treatises of the late twelfth and early thirteenth centuries edited by de Rijk 1967.


21. A good presentation of Ockham's version of this fictio-theory is provided by Karger 1994.


23. Ibid.: "... frustra fili per plures quod potest fieri per paucem. Omnia autem quaemant ponendo aliquid distinctum ab actu intelligendi possunt salvare sive tali distincto ..." On the place of the Ricketts in Ockham's nominalism, see Marter 1978 on conceptus theories.

24. See, for example, SL I, OPA I, p. 7: "Terminus conceptus est in se possio animarum aliarum naturaliter significare vel significare, nate esse pars propositionum et pro eodem nata supponere."

25. See, for example, Quodl. V, q. 7, OTh IX, p. 504: "Et loquor de conceptibus, qui est cognitione abstractiva," or SL I, 13, where Ockham incoerently uses conceptus abstractiva (OTh IX, esp. pp. 77–8).

26. See Ovd. I, Pred. q. 1, OTh IX, p. 30–31: "Scidunt tamen quos notion abstractivas potest actus dicipularis uno resultat quia est resipicium alius abstracta: multis singularibus ... Attulit cognitionem abstractiva secundum quod abstracta ab existentia et non existentia et ab aliis contingentem actu rei.

27. See Quodl. V, q. 7, OTh IX, p. 506: "... dico quod intellectus notet de nullis creaturis potest habere aliquo conceptu secundus program ... et hoc quia quidque talis cognitione sive conceptus aequaliter est similitudo et representat omnia individua singularis, et ita non plus est conceptus proprius unius quam alterius; sicut vox si habes aliqua: talis conceptus est aliquo alio: alio etiam festivit in conceptum talium: et ita non solum rei sui proprii, sed etiam restitutum est universalis ..." On Ockham's evolution in this respect, see Adams 1987, pp. 534–6, and Panacico 1992a, pp. 121–4.

28. See Quodl. I, q. 13, OTh IX, p. 77: "... habeb aliquam cognitivam abstractivam program, sed illa non est solum simul et conceptus alius abstractus secundum program, an se invenire vel totum signum voluntariam voluntatum institutionem naturae est praedicari et non substantia aliqua ergo sola intentio animae vel signum voluntatis institutionem naturae est universale."


30. See Quodl. I, q. 13, OTh IX, p. 74: "... dico quod cognitione abstractiva primitiva generationis et simplex non est propositio singulari, sed est cognitionem communem aliqua, immo semper."
See Adams 1987, p. 319, n. 9. Adams even doubts that pronouns are counted as
categorematic terms by Ockham. Yet this is what he explicitly does in Quodl. II, q. 19,
OTA IX, p. 195: 'Et idio dico quod ex primary institutione [pronomen] est vox
categorematica.' See also SL III-4, 10, OPR I, p. 758, where Ockham counts pronouns
among the signs having a determinate signification, which is precisely how a
categorematic term is defined when the notion is first introduced in SL I. OPR I, p. 15.

51. See SL I, 3, OPR I, p. 11, where after having raised a doxa about the presence of
participants in the mental language, as distinct from verbs, he laconically adds: 'Et de
pronominibus posset esse consimilis dubitatio.' In the corresponding discussion of
Quodl. V, q. 8, he doesn't mention pronouns at all among the grammatical categories that
are needed, according to him, for the analysis of the language of thought.

52. See Panaccio 1980, 1992a, pp. 177-81.


54. Russell 1918, pp. 200 et seq.

55. SDI, 19, OPR I, p. 66.

56. Karger 1978 has judiciously called attention to cases of this sort.

57. SL III-3, 32, OPR I, p. 709.

58. See SL II, 2, OPR I, p. 255, where the thesis is made explicit for the case of particular
negative propositions. It also holds, a fortiori, for universal negative propositions, as

59. For example: McGrade 1986; Tachau 1988, chap. 5; and Alferi 1989.


Chapter 2
Intellectual Acts

Concepts, then, are intellectual acts in Ockham's mature theory. This is an intriguing
idea. For one thing, the sense in which Ockham uses the term 'act' is an unfamiliar
one for modern readers and has to be explained; this will be the object of section 1
of the present chapter. The reasons which led him to drop the fictum-theory of
concepts in favour of the actus-theory will then be reviewed (section 2), as well as the
reasons why he rejected, from the very start, the so-called species-theory, held in
particular by Thomas Aquinas (section 3). Once this is done, we will be in a position
to reach a better understanding of how conceptual acts fit into human thought in
Ockham's view (section 4).

1. Mental acts and habitus

The first thing to notice concerning Ockham's general notion of actus is that it is very
different from today's idea of action as it occurs, say, in the philosophy of
action. An action in the modern sense roughly corresponds to 'someone's doing
something intentionally.' Acts in the medieval sense, by contrast, are not always
done intentionally, and are not always someone's acts either. One could speak of
heating as being the act of a fire, or of shining as the act of the Sun. The eruption of
a volcano or the ringing of an alarm-clock would be good examples too. The relevant
background here is Aristotle's idea of actuality (entelecheia), as opposed to mere
potentiality. The act of something, in this vocabulary, is its
actual operation, what it
does, that is, in virtue of its internal powers being somehow set into activity. Such
operations can in many cases be triggered by external factors, yet they will be
considered as acts in the relevant sense as long as they are typical realizations of
certain internal powers the thing has in virtue of its essence, rather than merely
accidental occurrences: growing, for example, is an actus of a tree, but its falling
down as a result of being struck by lightning is not.

In the case of human beings, Ockham distinguishes between external and internal
acts. External acts are publicly observable and directly affect something outside the
agent. Most intentional actions in the modern sense, such as walking, cutting a tree,
or speaking aloud, are typical external human acts in this sense; but so is breathing
or sweating, although these are not intentional. Internal acts, on the other hand, are
mental actualizations of various human psychological powers or faculties (potentiae), there are appetitive acts, for example, corresponding to the sensitive
appetitive faculty, such as acts of desire, fear, or repulsion; there are volitive acts or
acts of the will, such as decisions3 and, of course, there are cognitive acts too, whether sensitive or intellectual (among which concepts). None of these, let me
insist, need be intentional in the sense in which an action is usually taken to be.
Many intellectual acts, in particular, are not under the control of the will, according to Ockham, and are not, consequently, the sort of things that can be done intentionally. A further distinction which was unanimously considered in the thirteenth and fourteenth centuries as crucially relevant for a correct understanding of human mental acts is the one Aristotle had allusively drawn in Book II of the De Anima: "But actually, he said, I see, if I will, it as knowledge and as second as contemplation is." In the medieval vocabulary, these came to be called respectively the primary act (actus primus) and the secondary act (actus secundus); or as Ockham said, in Ockham—actus intellectus. Aristotle’s point was that the actualization of a capacity often comes in two degrees, especially in human beings. The example points at in the relevant passage of the De Anima is that of a given scientific truth. At first, one is utterly ignorant of it, but has the capacity to learn it; this is a case of mere potentiality. When the person has learned this particular truth, but is not currently contemplating it, this knowledge is said to be actualized in her as a primary act—or habitus. When she does actually contemplate the truth in question, it thereby gains a stronger form of actuality within her, and is said to be there as a secondary act—or actus intellectus. In Ockham’s vocabulary, then, the habitus is an acquired disposition, while the mental act is an actual psychological episode.

Ockham makes abundant use of this distinction in epistemology as well as in ethics. In the end, the general pattern of connection he establishes between mental habitus and the corresponding acts comes down to the following two principles:

(a) A psychological habitus is normally caused by an original psychological act leaving a trace within the mind.

(b) The habitus in turn is a partial efficient cause for further acts of the same sort as the original one.

In order to avoid an infinite regress, this requires, as Ockham acknowledges, that not all mental acts should (even partially) be caused by a habitus. In the case of knowledge, in particular, the intuitive grasping of an object is not normally caused by an acquired habitus, but by an intuition—one, sensibly and intellectually—objects that are physically present in its environment. When this is done, though, the act, as we have seen in chapter I, causes an abstractive act, which in turn causes an acquired habitus: a partial cause for further acts of the same sort. This causal effect of the habitus is described by Ockham as an ‘inclination’. A mental habitus, he typically says, inclines the mind towards certain sorts of acts; when the other relevant factors are present, acts of this sort will tend to occur within the mind of whoever is endowed with such a habitus. And when a new act is thus engendered by a psychological habitus (whether cognitive, volitive or appetitive), a new habitus, similar to the previous one, will in turn be engendered, or—more often, presumably—the previously existing habitus will be strengthened. Acts and habitus thus form a rich cluster of causal chains within the mind.

Ontologically speaking, all these psychological acts and habitus are seen by Ockham as real singular qualities of singular minds. His nominalistic ontology, remember, admits of only two sorts of real things in the world: singular substances and singular qualities. Since the existence of certain psychological acts is known by experience (we know, for instance, that we are joyful or sad), the reality of such acts is above suspicion. Being accidental and transient states of substances sometimes sad, sometimes not), they cannot be identified with the substances themselves. They have, therefore, to be qualities. If this is true of some psychological acts, such as pleasure or sadness, there is no reason why it shouldn’t be true of all of them in so far as they are real. And if it is true of psychological acts in general, it must be true of psychological habitus as well. The upshot of it all is that our present purpose is that concepts, if they are to be identified with the abstractive acts of human minds, are real episodic singular qualities of such minds, generated either by intuitive acts (when such acts occur) or by previously acquired cognitive dispositions or habitus, and causally producing, in turn, new cognitive dispositions within the mind or, at least, strengthening previously existing ones.

2. From the ficta to the acts

But why should concepts be identified with cognitive acts? Many medieval authors, after all, thought otherwise. Thomas Aquinas, for one, had it that a concept is the object and product of the intellectus, rather than the act itself. Ockham, in his earlier teaching, had favoured a similar approach himself, known in the literature as the fictum-theory of concepts. According to this doctrine, concepts are not real entities belonging to the Aristotelian categories of substance or quality, but mere objects of thought, having no other existence than that of being cognized which (Ockham then called ‘intentional being’ [esse intentionale] or ‘objective being’ [esse abstractiveum]). The Venerabilis Inceptor probably thought for a while that the posulation of such special unreal objects was necessary to avoid admitting common natures into being, as his senior colleague Walter Burley had been led to. Burley, in effect, having rejected Aquinas’s theory of the concept as the intentional object of the intellectual act, was quite happy with having ontological universals, instead, as objects for such acts. Ockham, on the other hand, thought from the start that the admission of universals or common natures as extramental beings was one of the worst possible errors in philosophy, leading to all sorts of incongruities and inconsistencies. While he was ready to admit real individual things as objects for singular cognitive acts, he believed at first that general thoughts required some special sort of objects and he reverted, therefore, to ficta, rather than common natures, to play this role. As Elizabeth Karger ably writes: ‘It seems that Ockham must have introduced ficta as substitutes for common natures … without the drawbacks of an objectionable ontology.’ The question is: why did he charge his mind?

Many recent commentators have surmised that Ockham’s evolution on this point was due to the objections raised in the early 1320s against his theory of concepts as ficta by his Franciscan conferee Walter Chatton. The matter, however, requires a closer look. In his most complete lining of reasons for dropping the fictum-theory, in question I of the Quaestiones in Libros Physicorum Aristotelis, Ockham provides
seven arguments, only two of which are directly borrowed from Chatton's original critique.26 The first clear signs of Ockham's evolution on the matter, moreover, occur in the Prologue of his commentary on the Perihermeneias, which, according to the chronology proposed by the editors, was written during Ockham's intervention,27 and two of the arguments against the fictum-theory mentioned with approbation in the Quaestiones in Librum Physicorum do come from this earliest text.28 It might very well be that the discussion with Chatton was the occasion for Ockham to rethink the question for himself and that some of Chatton's points really impressed him, but on the whole, as we are about to see, his motivation for shifting from the fictum to the actus-theory of concepts was quite distinctive.29

The key reason for his change of mind is revealed by Ockham, not so much in the arguments he offers against the fictum-theory, as in the one positive consideration he brings forward in favour of his new position, both in the Quidditibus and in the Summa Logicae: "whatever is preserved by appeal to a fictive entity can be preserved by appeal to an act of understanding."21 Seeing this as the central point invites for a reorganization of Ockham's whole argumentation on the matter in the form of the following modus ponens:

(1) it would be preferable to dispense with the fictum if we can;
(2) it is indeed possible to dispense with the fictum, since all the functions we want to attribute to concepts can be adequately fulfilled by intellectual acts;
therefore:

(3) we should dispense with the fictum in favour of the actus.

All of Ockham's particular objections against the fictum-theory, whether in his commentary on the Perihermeneias, in Quidditibus IV, 35 or in the Quaestiones in Librum Physicorum 1, can be associated with either premises (1) or premise (2) of this modus ponens; some of them reenouncing the drawbacks of an appeal to the fictum (without, however, being decisive in Ockham's eyes) while the others insist on its actual dispensability. The whole scheme can be reconstructed in the following manner.

First, the drawbacks. There are five of them, the first two – in the order adopted here – having to do with complications induced by the introduction of the fictum, and the last three with conflicts it tends to generate with well-accepted theoretical principles:

(1.1) The acceptance of the fictum as the object of cognition requires a counterintuitive complexification of the ontology, since it cannot be identified with a natural entity, whether a substance or an accident.30
(1.2) It also induces a special complexification of the epistemological process, since the position of such a fictum is not analytically required by the idea of an intellectual act of cognition (even a general one).31
(1.3) The insertion of the fictum as the object of general cognition represents a threat to direct realism in epistemology, otherwise favoured by many medieval authors including Ockham, since it introduces an intermediate between the act of cognition and the thing itself.32 It must be stressed that, contrary to what Marilyn Adams suggests, this objection is considered relevant by Ockham only in so far as it has to do with general abstractive cognition, rather than with intuitive cognition, since he never had supposed anyway that the latter involved a fictum. Adams takes the argument to be "confused because she thinks it rests on the implicit premise that ficta, according to the fictum-theory, 'are always the immediate objects of thought and awareness' " which, as the rightly remarks, Ockham had never accepted in the case of intuitive cognition. But Ockham, of course, knew that very well. What he must mean here is that the fictum-theory threatens the adequacy of general knowledge.

(1.4) Endorsing the fictum is not easily compatible with the idea (which was generally accepted in Ockham's times) that the representational function of general concepts rests on some similarity they are supposed to have with the things they represent: being an unnatural and unreal sort of entity, the ficta would seem to differ more than any real thing from whatever it is that they are expected to represent.

(1.5) The postulation of ficta, in so far as it implies the eternal and necessary existence of a realm of purely intelligible objects, runs counter to the principle of God's omnipotency and to the radical contingency of all created beings.33

Ockham, it seems to me, must not have taken these five points as decisive by themselves against the fictum-theory. After all, he could have lived with the complications pointed out by the first two objections, had he thought them necessary for a correct account of cognition. And the introduction of ideal intermediates between minds and things, that give rise to objection 1.3, would certainly have been preferable to him than the acceptance of common natures as direct external objects for scientific knowledge, even at the price of tempering his direct realism a bit. As to the last two difficulties, Ockham, so doubt, could have found ways of alleviating them. As he had already remarked in his commentary on the Perihermeneias when reacting to objection 1.4, the only sort of similarity which is relevant for an account of human cognition is the one that can hold between a mental representation – whatever that is – and what it represents. In the fictum-theory, that would be the sort of similarity an intelligible object can have with real things – intentional similarity, let's call it – and there would be no point in comparing it in terms of degrees with similarities among real things: a mule might look pretty much like a horse, yet it cannot serve as a mental concept for horses, simply because it is not the sort of entity a mind can do computations with.34 The existence of ficta, finally, could have been made contingent upon the existence of the corresponding acts of thought in human minds, which would have sufficiently countered objection 1.5.

The five problems mentioned up to now are not innocuous for all that – far from it – but they could have force against the fictum-theory in Ockham's eyes only in so far as an acceptable alternative was available, which could avoid these complications and drawbacks without reintroducing common natures in the external world, a requirement Chatton's approach could hardly satisfy, being very close to that of John Duns Scotus in metaphysics. A second argumentative step was needed in order to
show that the cognitive functions of concepts could be fulfilled by intellectual acts without undesirable ontological consequences. Some of Châtton's remarks could be revived in the process, no doubt, but the crucial point, as we shall see, was original.

Three more of Ockham's arguments are relevant here:

(2.1) All the uncontroversial propositions we want to accept about conceptual activity, propositions such as "horses are conceptually cognized" or "horse is a predicate" and so on, could very well be true even if no fictum existed at all, but only cognitive acts and real external things. If, however, the truth of a proposition requires something more than these things, it is difficult to postulate a thing of this sort on this sole basis. This objection, as can readily be seen, explicitly rests on a version of the famous Razor Principle which came to be associated with Ockham's name. The crux of it, however, is the assertion that ficta are not needed to account for the sort of things we normally want to say about concepts. But this amounts to little more than what I called premise (2) above. How it can be sustained remains to be explained.

(2.2) Concepts are expected to be subjects and predicates in mental general propositions. Thus there is the same sort of example that can do as just as well as the fictum. This argument, closely inspired by Châtton, brings to the fore a particular case of this general principle, what is true of all particular cases. A function that concepts should fulfill, that of being the subjects or predicates of mental propositions. What it does not do, however, is to show how exactly an intellectual act could come to serve as a subject or a predicate. In Ockham's logical doctrine, what is required for anything to be the subject or predicate of a proposition is that it should be able to have a suppositi (or referential function). The argument, then, presupposes in Châtton's hands that intellectual acts can in general supposit for something but it does not yet show how this is possible.

(2.3) An intellectual act can represent something outside the mind; it can signify such a thing, and supposit for it, just as much as a fictum was expected to. This, at last, is the heart of the matter. The functions enumerated - representation, signification, and supposition - are the basic ones concepts are supposed to fulfill. If intellectual acts can do that, then ficta indeed are dispensable without loss. This general argument had first been sketched by Ockham in his commentary on the Perihermeneia as an argument in favor of postulating real mental qualities within the mind, which, while distinct from the intellectual acts, could serve as objects for these acts, a position he never actually subscribed to. Later on, however, he realized that these functions could be directly assigned to intellectual acts. Both in the Quodlibeta and in the Summa Logicae this is his main point in favor of the actus-theory.

The whole argumentation, as developed by Ockham, ultimately rests on his realization that some intellectual acts can serve as mental signs, be endowed, that is, with significations of their own and be capable of referential functions within mental propositions. Once this is admitted, considerations 2.2 and 2.1 directly follow, the drawbacks mentioned in 1.1-1.5 can be given all their weight, and the general master argument smoothly runs through.

How Ockham came to see this as possible without reintroducing common natures in the ontology is revealed, interestingly enough, by the one aspect of argument 2.3 which he substantially modified with respect to the original version of it he had given in this commentary on the Perihermeneia. He was explicit in this earlier passage that this argument, in his view, could not be invoked in favour of identifying concepts directly with intellectual acts, because he found it difficult to see what the objects of such acts would then be, what it is, in other words, that such cognitive acts would be cognitions of. What he was presupposing at the time is that every act of cognition must have one and only one object into which it 'terminates'. This is why he could see argument 2.3 as capable of being used in favour of identifying concepts with special mental qualities serving as objects for intellectual acts, but not yet with the intellectual acts themselves. Dropping this presupposition is precisely what opened the way for his final adoption of the actus-theory.

As I said earlier, it might very well be that the debate with Châtton helped him in this regard, but none of Châtton's arguments could have convinced him as long as he didn't see how he could avoid the postulation of special mental objects for intellectual acts without having to revert to common natures as what these acts should terminate in. The breakthrough must have come when he realized that simply dropping an unexamined and unwarranted assumption about cognitive acts could do the trick. Not that he came to accept that cognitive acts did not need any object at all, or did not need to 'terminate' in anything at all. What he realized instead is that each cognitive act does not need exactly one object. This must have been greatly stimulated by his coming to take with utmost seriousness the idea that a general concept is but the sign of many singular things at once, a doctrine he had already sketched in his commentary on the Sentences. Clearly recognizing that the identification of the cognitive act with the concept amounts to identifying it with a sign of many singular things opens the way to seeing how it can still be a cognition of something without this something being either a fictum or a common nature: if conceptual acts are seen as general signs, only their singular significata are needed to serve as their objects.

The rejection of intelligible species

Another doctrine which Ockham is famous for having rejected concerning mental representation is the so-called species-theory. In its full-fledged version, as it had been developed by thirteenth-century 'perspectivists' like Roger Bacon, John Peckham and Witelo (all heavily influenced in this regard by the Arab philosopher Alhazen), this theory held that in order for human cognition to take place, the forms of external things had to penetrate the mind somehow. This was thought to require three successive patterns of representative emanations - called species - flowing out from external things: first, there was the species in medias, which was supposed to carry the thing's image through the ambient environment (called the medium); second, a sensible species was said to be formed within the sensitive organ of the knower, and third, an intelligible species was postulated within the intellect.
Ockham, from the very start, rejected all three of these. I will focus here on his discussion of the intelligible species, which is the more directly relevant in the present context.

This is a theme that has loomed large in the recent literature on fourteenth-century epistemology. Yet a number of misunderstandings still circulate, something several recent commentators, even among the best, seem to have missed. Robert Pasnau, for one, bluntly asserts in the course of his discussion of Ockham's rejection of the intelligible species, in its otherwise remarkable book on Theories of Cognition in the Later Middle Ages, that 'this portion of Ockham's account, isn't different from Aquinas's', since both admit that the contact with external things puts the intellect 'into a certain state such that cognition with a certain intentional content follows'. Ockham's point, however, is precisely that there is no such state, as distinct from both the cognitive act and the habitus that follows upon it. Pasnau thinks that these states, in Aquinas's theory, are not to be identified with the intellect itself, but if the intelligible species is a substance of its own, of course, in Aquinas's view; nevertheless, it is not ontologically reducible to either the intellect or the cognitive acts and habitus.

3.1 Species as preconditions for intellectual acts

As to the first point, everybody agrees that Ockham's main target on this was Thomas Aquinas's doctrine (or some version of it). Aquinas, of course, was far from being the sole proponent of these ideas (and Ockham, in fact, explicitly mentions Scoto in this regard), but as Leen Struyt correctly points out, Aquinas had offered what 'may legitimately be called the "canonical" theory of intelligible species'. And Ockham was well aware of this. Aquinas thought that, since universal intelligible forms could not be posited as actually existing outside the mind (as Aristotle was taken to have shown against Plato), they had to be actualized within the mind by a special intellectual power, called the 'agent intellect', which extracted them, so to say, from the sensible species deposited within the imagination as a result of sense perception. This process of abstraction, in his view, led to the formation of intellectual general representations - the intelligible species, precisely - which could then serve as the means for general knowledge.

What Ockham objected to in this account is not that it involved intellectual representations stored in the mind for future use - he needed that too himself in the guise of the habitus - but that the intelligible species it postulated should always be prior to the intellectual acts of cognition, and that they were seen as presupposed by these acts:

I take it that the species [according to this theory] is a precondition for the act of intellection and can remain both before and after intellections, even in the absence of the thing. And it is distinct, therefore, from the habitus, since the intellectual habitus follows upon an act of intellection while the species involves both the act and the habitus.

Ockham's whole discussion of the matter in the Reportatio makes it clear that what he wants to dispense with is precisely this antecedence of the stored intellectual representation over the intellectual act of cognition. It has to be understood that the process of abstraction which leads to the formation of the intelligible species is not, in Aquinas's doctrine, the intellectual act of cognition itself, but a preparatory phase, postulated as a condition of possibility for intellectual acts to occur: the intelligible species resulting from this somewhat mechanical - and unconscious - process of abstraction is, in Aquinas's words, 'the source [principia] of the action of the intellect', and it must be carefully distinguished both from the cognitive act itself, which comes after it, and from what Aquinas calls a concept - or conception, or mental word - which he sees as the result of the cognitive act, while the intelligible species is, in all cases, supposed to be its starting point.

That this is where the disagreement lies between Ockham and Aquinas is something several recent commentators, even among the best, seem to have missed. Ockham's rejection of the intelligible species, in its otherwise remarkable book on Theories of Cognition in the Later Middle Ages, has 'this portion of Ockham's account, isn't different from Aquinas's', since both admit that the contact with external things puts the intellect 'into a certain state such that cognition with a certain intentional content follows'. Ockham's point, however, is precisely that there is no such state, as distinct from both the cognitive act and the habitus that follows upon it.

The first one is cognitive assimilation. It was commonly accepted in the Middle Ages that cognition, whether sensible or intellectual, requires the knower to develop within himself some sort of similarity with the known object. Ockham agrees, but insists that the relevant sort of assimilation is sufficiently explained by assuming the act of intellection to be originally caused by the object itself. It has to be stressed, pace Tachau, that this argument in no way hangs upon some anti-representationalist trend in Ockham's thought. Tachau wrongly assumes that Ockham 'rejects the notion that intellectual cognition is a process of assimilation of intellect to object'. He does accept it, quite to the contrary, for every variety of simple cognitions, whether intuitive or abstractive. His point, rather, is that the existence of preparatory intelligible species is no more a necessary precondition for abstractive assimilations than it is for intuitive ones.

A second reason one might want intelligible species for, Ockham says, is to account for mental representation; but, once more, the object itself and the cognitive act are sufficient for this. Ockham's starting point, here, is that the intuitive grasping of an object does not require any intervening representation between the object and the act, the direct causing of the act by the object being obviously enough in this case. If this is so for intuitive cognition, he argues, then there is no reason why it should be otherwise for the abstractive cognition that immediately follows upon it:
just as the object sufficiently represents itself in the one cognition, it does so too in the other, which immediately follows upon the intuitive cognition.\textsuperscript{47} As a result of this idea, it is not to evacuate mental representation altogether. The argument, on the contrary, assumes that such a representative function is already at work, at the level of intuitive cognition, from which it concludes that mental representation in general does not necessarily require a species pre-existing to the cognitive act.

The causation of intellection was a third motive sometimes invoked in favour of positing intelligible species, on the basis of the alleged impossibility for material things to causally affect the spiritual realm. But if there was such an impossibility, Ockham argues, how could the formation of the intelligible species itself ever be explained without falling into an infinite regress? 'just like you accept, he says to his opponent, that a corporeal thing can be the partial cause of a species in the spiritual realm, I accept that a corporeal thing is the partial cause of the intellection in the spiritual realm.'\textsuperscript{60} This again is basically an argument from parsimony: since the causal impact of material things upon the mind has to be acknowledged anyway, the introduction of species is useless in this respect. And the aegura tentativa or pro rata pattern is the same for the last two functions Ockham discusses in this context: how the cognitive faculty is determined by its object, and how it is moved by it.\textsuperscript{61} Nothing in his whole critique of intelligible species hangs upon either an anti-representation bias or on Ockham's part or on his wrongly supposing that the intelligible species were intermediate objects of thought in the eyes of their supporters (which, obviously, they were not).\textsuperscript{62} Ockham, in fact, does not even stress any special drawbacks of accepting intelligible species (as he will do later on in the case of the fictum), except for useless complications in epistemology. Parsimony, here, is his sole manifest preoccupation.

This is also the case in his short critique of any temptation to identify concepts with intelligible species, in the Prologue to his commentary on the Periphrasenesis.\textsuperscript{63} He mentions three objections there. First, such species are superfluous anyway, the reader being referred to a demonstration of the point elsewhere in Ockham's works (presumably the one we have just been discussing). Second, only acts and things should be admitted as real entities within the mind according to Aristotle. And third, it would follow that concepts - and the mental propositions made up from them - would remain within the soul even when it is not actively thinking, just like the species are supposed to. All three arguments can be read as pointing to unnecessary epistemological complications, and have nothing to do, at any rate, with alleged threats to direct realism.

Eleone Stump mentions still another argument Ockham uses against species: 'No one sees a species intuitively, and therefore experience does not lead us to this account of cognition', which she interprets as (wrongly) presupposing that in order for the species to be vindicated, its mental reception should be a conscious perception act. Not all of them, however, were identified with concepts. Even leaving aside habitus, conceptual acts in his view are but one variety of intellectual acts. They must be distinguished, on the one hand, from intuitive acts, as was explained in chapter 1, and, on the other hand from propositional and judicative acts, which is what I want to insist upon now. The mind, for Ockham, is basically a combinatory device. Locating the role of concepts in human thought calls for an elucidation of how intellectual acts combine with each other to form complex units, such as propositions and judgements. I will first briefly present Ockham's distinction between simple and complex items within the mind (section 4.1), and then examine in some details the structure of mental propositional acts, of which concepts can normally be parts (section 4.2). We will see, finally, how judicative acts fit into the picture (section 4.3).

4. Combining acts
Both species and ficta, as we now see, were denounced by Ockham for reasons of economy. In the case of species, he was never even tempted to countenance them, because he couldn't imagine any special job they could be endowed with. Ficta were different in his eyes, because he thought for a while that, despite all their drawbacks, they provided the sole alternative to common names for serving as objects of general abstractive acts of cognition. This is a notion he came to abandon when he realized that the only aspect that matters for something to be a concept is its capacity to fulfill certain semiotic functions in mental computations. From then on, he was left with only acts and habitus within the intellect. Not all of them, however, were identified with concepts. Even leaving aside habitus, conceptual acts in his view are but one variety of intellectual acts. They must be distinguished, on the one hand, from intuitive acts, as was explained in chapter 1, and, on the other hand from propositional and judicative acts, which is what I want to insist upon now. The mind, for Ockham, is basically a combinatory device. Locating the role of concepts in human thought calls for an elucidation of how intellectual acts combine with each other to form complex units, such as propositions and judgements. I will first briefly present Ockham's distinction between simple and complex items within the mind (section 4.1), and then examine in some details the structure of mental propositional acts, of which concepts can normally be parts (section 4.2). We will see, finally, how judicative acts fit into the picture (section 4.3).
This passage, admittedly, was written from the point of view of the fictum-theory here between complex and incomplex items separates different kinds of possible objects for intellectual apprehensive acts. When he moved to the actus-theory, he kept the distinction, except that from then on, it was the intellectual acts that he saw as either complex or incomplex: when he speaks of incomplex conceptual terms in the Summa Logicae, or of simple or composite concepts in the Quodlibeta,\(^7\) he is now referring to intellectual acts. The criterion for the distinction, nevertheless, remains the same. It corresponds to the one Ockham gives in his commentary on the Categories when explicating the strict sense of the term 'incomplex' as applied to words or signs (dictiones in this case): 'Strictly speaking, an incomplex item is a simple word, one single word, that is, without the addition of other words, such as 'man', 'runs', 'lion', 'goat' and we call 'complex', by contrast, whatever is composed of several words.'\(^8\) A simple sign is a sign no part of which is itself a sign. A simple – or incomplex – intellectual act, by transposition, is an intellectual act no part of which is itself an intellectual act. A complex one is an intellectual act that has other intellectual acts as its proper parts.\(^9\)

It must be insisted that this way of drawing the distinction does not prevent simple conceptual acts from having other kinds of complexity, as long as they don’t have intellectual acts as their proper parts.\(^10\) It does not pre-ent them, in particular, from having some sort of semantical complexity. Ockham, indeed, is quite ready to admit that a simple intellectual act, whether intuitive or abstractive, can have plurality of different objects all at once,\(^11\) or that a simple concept can simultaneously signify different things in different ways.\(^12\) This is a point that will turn out to be of utmost importance in the discussion of connotative concepts that will occupy us in chapters 4 to 6.

### 4.2 Propositional acts

Some composite mental acts are non-propositional: the combination of the concept 'white' with the concept 'horse', for example, yieds a compex conceptual act which is not yet a mental proposition. Other combinations, by contrast, involve a mental copula and are - paradigmatically - are the mental propositions proper. In their most elementary form – corresponding to what Ockham calls 'categorical' propositions, they are composed of a subject, a predicate, and a copula, each one of which being either complex or incomplex.\(^13\) More complex propositional acts can then be produced by combining such categoriacal propositions with each other with the help of connecting syncategoremata such as 'and', 'or', 'if', 'when', 'because', and so on.\(^14\) The order-problem is avoided, nevertheless, since composite mental acts do not need, in Ockham’s eyes, to be linearly ordered. Various intellectual acts of the same general sort (propositional acts, for example) are differentiated from one another by the nature of their parts, not by their order. The relevant feature for Ockham’s solution is here that an immediate part of a complex mental act can itself be...

From which he concluded that mental propositions have to be simple acts themselves: human thought, in Gregory’s view, is not intrinsically compositional.\(^15\) This is a problem Ockham was well aware of. He discussed in some detail in his commentary on the Perihermeneias and in his Questions on the Physics, some twenty years before Gregory’s lecture on the Sentences.\(^16\) In both texts – which are very close to each other – he sees the difficulty as stemming not from the merological structuration in itself, but from the apparent necessity for an order among the parts of a mental proposition if such parts are to be admitted. How could the mind distinguish, otherwise, between, for example, ‘all men are animals’ and ‘all animals are men’, which, apparently, have the same parts, but obviously not the same truth-conditions? A spatial ordering of parts, such as the one we find in written sentences, is excluded, of course, since the mind is not itself extended in space. And so is a temporal ordering, such as the one we have in spoken sentences, since the parts of a mental proposition, whatever they are, should be simultaneously present to the mind somehow. Ockham’s solution to the riddle is radical: it amounts to renouncing linear ordering altogether within mental propositions.

This, he thinks, can be done in two ways. First, we could say that a mental proposition is in fact a simple cognitive act (just as Gregory of Rimini will);\(^17\) but that it is equivalent to an ordered combination of terms such as the corresponding one in spoken language.\(^18\) And second, we could admit that the parts of such non-equivalent propositions as ‘all men are animals’ and ‘all animals are men’ are not the same, since a part of the former is the complex act corresponding to ‘all men’, which is not a part of the latter, and a part of the latter is the complex act corresponding to ‘all animals’, which is not a part of the former.\(^19\) It might seem at first glance that these two possibilities are exclusive alternatives for Ockham, among which he simply was not ready to choose when he wrote his commentary on the Perihermeneias and his Questions on the Physics. A closer reading of the two passages, however, reveals that he took the two alternatives to be simultaneously acceptable. His point is that ‘some mental propositions are composed of a subject, a predicate, and a copula, while some are equivalent to such combinations’.\(^20\) The admission of the former sort of mental propositions nearly duplicates Ockham’s approach from the one Rimini will later favour. Human thought, for Ockham, is basically compositional, as he explains in detail in the Summa Logicae.\(^21\) That mental propositions, for him, can sometimes occur as simple acts within the mind is a hastily – and fascinating – possibility, no doubt, but it remains a merely parasitic device: we can form, so to say, unanalysed abbreviative acts which, for some purposes, are functionally equivalent to more complex ones (in truth-conditions, for example), but the outreachng strength of human knowledge and reasoning – the possibility of a full-fledged science in particular – ultimately hangs upon this fundamental and remarkable capacity we have for combining mental acts into more complex ones in various ways.

The order-problem is avoided, nevertheless, since composite mental acts do not need, in Ockham’s eyes, to be linearly ordered. Various intellectual acts of the same general sort (propositional acts, for example) are differentiated from one another by the nature of their parts, not by their order. The relevant feature for Ockham’s solution is here that an immediate part of a complex mental act can itself be...
complex: the complex concept ‘white horse’, for example, is a distinct intellectual act which can occur as such as an immediate part of a mental proposition. And the same is true when mental \textit{scantategoromata} are involved.\footnote{This probably refers to the concept of a concept.} All this supposes, admitted, that the various parts of a complex mental act – and even the parts of its parts – can all be simultaneously present to the mind. But Ockham never saw that as a problem. He thought, on the contrary, that the possibility of simultaneous intellectual acts had to be acknowledged by any sound theory of mental activity,\footnote{A reference to a theory of mental activity.} and that it was, at least implicitly, by Aristotle’s.\footnote{A reference to Aristotle’s work.} His point was simply that the complexity of mental discourse does not require a linear ordering of the sort we observe in spoken or written discourses.

The relevant idea is that some parts of ‘all men are animals’\footnote{A reference to a proposition involving animals and men.}, for example, have no equivalent in ‘all animals are men’. The former, in effect, involves six parts altogether, according to Ockham’s complete analysis:

\begin{enumerate}
\item ‘all’ (a simple syncategorematic act),
\item ‘men’ (a simple conceptual act),
\item ‘all men’ (a complex conceptual act having (1) and (2) in its parts),
\item ‘are’ (a simple copulative act),
\item ‘animals’ (another simple conceptual act),
\item ‘all-men are animals’ (a complex propositional act having (3), (4) and (5) as its parts).
\end{enumerate}

The whole structure can be represented as a tree:

\begin{tikzpicture}
\t\node {all-men are animals} child {node {are} child {node {all}} child {node {men}}}
\end{tikzpicture}

The important thing, however, is that some of its components do differ from those of ‘all animals are men’, which does not have (3) as a part, and involves, therefore, nothing like (6). The underlying thesis is that when two complex intellectual acts are of the same sort (two propositional acts, for example), their non-equivalence – if any – ultimately depends on some of their respective parts not being equivalent to each other. A non-linear arborescent order ultimately results from the very identity of the parts. For a complex arrangement of mental terms to be a proposition, it is sufficient that it be composed of at least two categoricematic concepts and a copula.\footnote{A reference to a concept of composition.} Any such whole \textit{ipso facto} has truth-conditions – which is the distinctive mark of propositional acts – and can be connected within the mind with an act of assent – or dissent – to form a complete judgement.

While the main function of conceptual acts in human thought is to contribute in specific ways to the truth-conditions of mental propositional acts, the latter in turn are characterized by their functional roles with respect to mental units of a further sort, which are more immediately linked with behaviour: judicative acts. These are usually contrasted, in Ockham’s texts, with merely apprehensive acts, the latter not yet involving any special commitment of the thinking agent toward the truth-value of propositions.\footnote{A reference to the nature of the relationship between propositional and judicative acts.} At the time of his lectures on the \textit{Sentences}, when Ockham was still supporting the \textit{fictum}-theory of concepts, this distinction was drawn in a quite straightforward manner: the apprehension of a complex propositional content was identified with its very formation within the mind,\footnote{A reference to the formation of concepts within the mind.} and it was taken to be presupposed by the judicative act of assent or dissent.\footnote{A reference to the relationship between assent and dissent.} In the \textit{Quodlibeta}, however, the subject gets more complicated. Ockham now distinguishes between two sorts of apprehensive acts having to do with propositions, and two sorts of judicative acts as well.

The first variety of propositional apprehension is, as in the earlier approach, the mere formation of the mental proposition, in other words the propositional act itself, in the \textit{actus-theory} now favoured, it usually has conceptual acts as its intrinsic parts. And the second one is the act of self-consciously considering – or cognizing – a previously formed such mental proposition;\footnote{A reference to the act of cognizing a proposition.} it is, in Ockham’s vocabulary, a reflexive act, that is, a mental act with another mental act as its object.\footnote{A reference to the nature of reflexive acts.} The first form of judicative act, on the other hand, consists in the ordinary non-reflexive acceptance that so and so is the case.\footnote{A reference to the act of acceptance.} Not being reflexive, it does not, properly speaking, have a propositional act as its object, but it simply follows upon the formation of some propositions, without any conscious grasping of them.\footnote{A reference to the act of acceptance without conscious grasp.} It can be correctly described as having a propositional content – since it is, indeed, an assent that so and so is the case – but not a propositional object: it is not an assent to a proposition.\footnote{A reference to the distinction between assent and propositional object.} So far as it can be said to have objects at all, these will be the external things that the judgement pertains to.\footnote{A reference to the objects of judicative acts.} The judicative act is a simple act in this case, but it can be said to be functionally equivalent in many respects to a complex one in that it involves somehow an apprehension of a plurality of external things.\footnote{A reference to the function of judicative acts.} Judicative acts of the second sort, by contrast, presuppose the reflexive apprehension of a propositional complex, and are reflexive therefore, in so far as their objects are mental acts (propositional acts in this case).

The highest sort of such judicative act, for Ockham, is the act of scientific knowledge (\textit{actus scientiae} or \textit{actus sciendi}) in the strongest sense of the phrase, this knowledge, that is, by which some necessary truth is evidently known as such as the result of a valid inference from necessary premises.\footnote{A reference to the nature of scientific knowledge.} Since Ockham indicates that the objects of such science must be propositions,\footnote{A reference to the nature of objects of scientific knowledge.} it must be concluded that scientific acts of knowledge, in the strong sense, are reflexive judicative acts, according to his mature doctrine. The layman – the \textit{laicus} of \textit{Quodlibeta} III, 86\textsuperscript{a} – can unreliably entertain some beliefs, of course – and even true ones – but only the thinker who self-consciously and reflexively considers, within himself, general propositions, really composed of conceptual acts as their parts, can reach the highest degree of knowledge.\footnote{A reference to the role of self-consciousness in knowledge.} Ockhamistic conceptual acts, in short, are real mental episodes elicited either by the intuitive grasping of objects in the environment or by the activation of some
previous acquired dispositions – or habitus. They are either simple (if they have no other intellectual acts as their parts) or complex (if they do). Whenever they occur, they leave a trace within the mind, which is a new conceptual disposition, or the strengthening of a previously existing one. Along with intuitive and syncategorematic acts, concepts can be intrinsic components of propositional acts and be associated, through this, with judicative acts. Propositional and judicative acts, in turn, also cause the mental formation of corresponding habitus. In the case of habitus, in particular, the various resulting habitus can form a cluster – or a ‘collection’ – within a given mind, thus constituting the possession of a science – or of a grammar or arithmetic, for example – by this particular agent. All these acts and habitus are singular qualities in Ockham’s ontology. Intelligible species were discarded as superfluous, and so were, in the mature theory, the ideal objects of thought – the ficta – that had previously seemed to be necessary to avoid counterenunciating common names. In the last analysis, the distinctive feature of conceptual acts and habitus in the mental machinery, according to Ockham, is that they function as general signs in intellectual computations.

Notes
2. See, for example, Quaest. Var. q. 7, art. 1, OTh VIII, p. 328.
3. See, for example, Quaest. Var. q. 6, art. 9, OTh VIII, pp. 251–72, where Ockham discusses the relation of such appetitive acts with pleasure and sadness.
4. See, for example, Quaest. Var. q. 7, OTh VIII, pp. 322–407 (Engl. transl. in Wood 1997), where Ockham lengthily discusses the relation of virtues and vices with various sorts of appetitive acts.
5. Cf. ibid., p. 364: ‘...actus intellectus non est primum virtutis nec in postestate voluntatis.
7. See, for example, the handbook called the Auctores Aristotelici, ed. Hamwise 1974, p. 175: ‘Duplex autem, signum primum et secundum: prima signum, secundum ut speculaturn scientiam.
8. See Rep. III, q. 12, art. 7, OTh I, p. 397: ‘...dicendum autem est causa efficaciaresponsus habituus;’ also Quaest. Var. q. 7, art. 1, OTh VIII, pp. 323–5.
9. See, for example, OTh III, q. 12, art. 4, OTh I, p. 396: ‘...dicendum autem est causa efficiaci actus.’
10. Ibid., p. 286: ‘...dicendum autem primum non causabitur ab habitus sed ab alterius causis;’ please note that the phrase ‘primum actus’ here means ‘original act’ rather than primary act – or habitus – in the Aristotelian technical sense described above.
11. We can now see why Ockham postulates the causing of an intuitive act by every intellectual act. The formation of the habitus is described in his theoretical framework. If the intuitive act was posited as the direct cause of a habitus, this habitus would have to include the new intuitive acts, which is contrary to experience: the habitus I acquired from seeing a new intuitive grasping of horses when there are none around. See on this Rep. III, q. 12, art. 4, OTh VI, p. 404: ‘...concus habitus praeceptum immediate ad actus consiliis ex quibus generatur;’ also Rep. III, q. 7, OTh VI, p. 217.
12. Rep. III, q. 7, OTh VI, p. 205: ‘...unde habitus est causa actus, sed non eiusdem numeri unum quae causabantur, sed est causa alterius actus. Similiter, actus est causa habitus, sed non illius a quo causabantur, sed vel alterius habitus vel alterius genus in habitu.’
36-61. It is true that he had then considered possible replies (see OP IV, p. 379: 'Et quod velius tuere intus opinar: [that is, the fiction-theory], pestet respondere ...', but since he repeats the objections, but not the replies, in Quaest. in Phys., q. 1, he must ultimately have found these replies unconvincing.

26. It should also be noted that Adam Wodeham, who must have personally followed the debate between Ockham and Chatton when he was a student, and who had been close to Ockham at the time, later held that, although the concept is indeed to be identified with a cognitive act rather than with a fictum, неке of Chatton's original arguments against Ockham's former fiction-theory was conclusive (see his Libri Secundae in Sent., dist. 8, q. 1, ed. Wood and Gil (1990), vol. III, pp. 20-33). Quaest. in Phys., q. 1, p. 396: ' ... nisi talis fictum posset esse quidquid salvaret per fictum (trans. Fraddwell and Kelly, 1991, I, p. 398). See also in S. I, Oph II, p. 43: 'Omnia autem quae salvaret posendas aliquid distinctum ad actum intelligendi possunt etiam nisi talis distinctio ...'.

27. This is the gist of argument 6 in Quaest. in Phys., q. 1, Oph VI, p. 398: ' ... difficile est intelligere quod actus non posset esse nisi in actu intellectus et quod actus non posset esse nisi in actu intellectus ...'. The same argument -- in pretty much the same words -- is the first one adduced against the fictum-theory in Exp. in Perih., Prooemium, 7, Oph II, p. 360.

28. This is argument 5 both in Quaest. IV, q. 35 and in Quaest. in Phys., q. 1. As was usual in Ockham's times for arguments having to do with what was later called analysis, it is formulated in terms of what God could do without contradiction; in the Quoddilettina's formulation, OT IX, p. 473: ' ... non est contradictio quod Deus faciat cognoscere universum sine tallo ficto ...'. The argument in this case is directly inspired by Chatton (see Gil (1967), p. 199, and Woy and Etkorn (2002) p. 234). Quaest. in Phys., q. 34, and in Quaest. in Phys., q. 1. In the former's formulation: ' ... tale fictum impedet cognitionem rei ... qui ... quod quod aliquid aliud ponere.' Biard 1989, p. 106-8, has rightly insisted on the centrality of the idea of the concept as a sign in Ockham's final adoption of the act theory.

29. This is argument 2 in Quaest. IV, q. 35 and in Quaest. in Phys., q. 1. In the first's formulation: ' ... actus intellectus non possint esse in rerum natura nec essentia sine actis ...'. The same argument -- in pretty much the same words -- is the first one adduced against the fictum-theory in Exp. in Perih., Prooemium, 7, Oph II, p. 360.

30. This is argument 5 both in Quaest. IV, q. 35 and in Quaest. in Phys., q. 1. As was usual in Ockham's times for arguments having to do with what was later called analysis, it is formulated in terms of what God could do without contradiction; in the Quoddilettina's formulation, OT IX, p. 473: ' ... ab aeterno erat coordinatio tot entium fictorum quot rationes, quae fuerant ita necesse est, quod Deus non posset esse nisi in actu intellectus et potest manere ante intellectiones et post, etiam re ahsente. ...'. The argument in this case is directly inspired by Chatton (see Gil (1967), p. 199, and Woy and Etkorn (2002) p. 234). Quaest. in Phys., q. 34, and in Quaest. in Phys., q. 1. In the former's formulation: ' ... tale fictum impedet cognitionem rei ... qui ... quod quod aliquid aliud ponere.' Biard 1989, p. 106-8, has rightly insisted on the centrality of the idea of the concept as a sign in Ockham's final adoption of the act theory.


32. This is argument 7 in Quaest. in Phys., q. 1, Oph VI, p. 306: ' ... tale idiom plus differet a re quaeque unum quaeque reesse differ at alia ...'. It is clear that Peter John Olivi in the polemics against Aquinas's theory of the mental word (see Olivi's Tractatus de Verba, 6.2.3, ed. in Passeri 1993, p. 144: '[tale verbum] putet esse aliquid quod est universale sine alio articulo ...'. The same argument -- in pretty much the same words -- is the first one adduced against the fictum-theory in Exp. in Perih., Prooemium, 7, Oph II, p. 360-61, but is not found in the Quoddilettina version.

33. This is argument 3 in Quaest. IV, q. 35 and in Quaest. in Phys., q. 1. In the Quoddilettina's formulation, OT IX, p. 473: ' ... tale idiom plus differet a re quaeque unum quaeque reesse differ at alia ...'. It is clear that Peter John Olivi in the polemics against Aquinas's theory of the mental word (see Olivi's Tractatus de Verba, 6.2.3, ed. in Passeri 1993, p. 144: '[tale verbum] putet esse aliquid quod est universale sine alio articulo ...'. The same argument -- in pretty much the same words -- is the first one adduced against the fictum-theory in Exp. in Perih., Prooemium, 7, Oph II, p. 360-61, but is not found in the Quoddilettina version.

34. This is argument 3 in Quaest. IV, q. 35 and in Quaest. in Phys., q. 1. In the Quoddilettina's formulation, OT IX, p. 473: ' ... tale idiom plus differet a re quaeque unum quaeque reesse differ at alia ...'. It is clear that Peter John Olivi in the polemics against Aquinas's theory of the mental word (see Olivi's Tractatus de Verba, 6.2.3, ed. in Passeri 1993, p. 144: '[tale verbum] putet esse aliquid quod est universale sine alio articulo ...'. The same argument -- in pretty much the same words -- is the first one adduced against the fictum-theory in Exp. in Perih., Prooemium, 7, Oph II, p. 360-61, but is not found in the Quoddilettina version.

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36. This is argument 1 in Quaest. IV, q. 35, OT IX, p. 472, and Quaest. in Phys., q. 1, Oph VI, p. 397.

37. It is true that he had then considered possible replies (see OP IV, p. 379: 'Et quod velius tuere intus opinar: [that is, the fiction-theory], pestet respondere ...', but since he repeats the objections, but not the replies, in Quaest. in Phys., q. 1, he must ultimately have found these replies unconvincing.

38. This is the gist of argument 6 in Quaest. IV, q. 35, OT IX, p. 473 and in Quaest. in Phys., q. 1, Oph VI, p. 397; in the latter's formulation: ' ... nisi talis fictum posset esse quidquid salvaret per fictum.'


40. Ibid.: ' ... conceptus iste speciMus [that is, the concept of man] habet humanitatem pro-obojecto primo. This is something Ockham could not very well accept.'
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55. Thomas Aquinas, *Quaest. disp. de potentia*, q. 8, art. 1: ‘Differt autem [conceptio] a


58. *Summa contra Gentiles*, II, q. 12-13, OTB, p. 273: ‘Item, tunc assimilari requisitum in notitia intuitiva, quam in abstractive, sed in intuitiva non requirit aliquid, praesumptione, assimilari, igniat nec in abstractive.’ On Ockham’s acceptance of this possibility for both intuitive and abstractive knowledge, see also OTB, pp. 287-9.

59. Ibid., p. 395: ‘Intelligendum quod enuntiatio categorica dicitur simplex non per carentiam species intelligibilis in intellectu, sed per carentiam subiecti et predicati et copula, et *sicut est* in propositione mentali.’

60. Ibid., p. 396.

61. *Summa contra Gentiles*, II, q. 12-13, OTB, p. 274: the point about intuitive cognition had been made a few pages before (p. 268).


64. Ibid.: ‘Item, nihil est ponendum necessario requiri naturaliter ad aliquem effectum nisi id illud indicat ratio certa procedens ex per se notit representat certa, sed neuentum inmunam idem specier, et intellectum.’ This passage almost immediately precedes the sentence quoted in the previous footnote.

65. Ibid., p. 243-50.

66. Ibid., p. 16: ‘inter actus intelligibilium utrumque est apprehensum et respecctu causalitatis quod posse terminant actus potentiae intelligendi, *sicut est complexum in conceptione* (alitiae are mine).

67. For example, in *St I, 1, OPh, i, 11*; or *Quaest. in Phys.*, I, 121.
Spade, this notion appears to be a rather natural elaboration on Ockham's ideas in the texts we have just been discussing.

89. See, for instance, Ord. I, Prel., 1, OTh I, pp. 19-20, where Ockham argues that Plato can all at once love Socrates and know that he does, which requires the simultaneity of at least three mental acts: loving Socrates, knowing Socrates, and knowing about one's love for Socrates, two of which are cognitive acts. Also:

\[ \text{Rep. II, q. 12-13, OTh I, p. 17: } \]

90. This condition, however, is not necessary since Ockham, as we saw, accepts the possibility of simple propositional acts that are merely 'equivalent' to complex combinations of terms (see above n. 84 and 86).

91. For a further discussion of this point, see below chap. 8, sect. 2.

92. See, for instance, Rep. III, q. 1, OTh I, p. 16: 'Alius actus potest dici iudicativus, quo intellectus non tantum apprehendit obiectum, sed eadem illi assentit vel sibi assensu.'

93. As Karger 1996, n. 105, remarks, this identification is not explicitly asserted in Ockham's earlier works, but it is presupposed. See, for example, SL I, 3, p. 85, where he refers to 'the apprehension or formation of a complex unit' (apprehensionem sive formationem complexi).

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97. Quodl. V, q. 6, OTh IX, p. 501: ' ... duplex est appprehensio: una quae est compositio et divisio propositionis sive formatio; alia est quae est cognitio ipsius complexi iam formati ... '

98. See Quodl. II, q. 12, OTh IX, p. 165, where Ockham distinguishes reflexive acts from direct ones: ' ... vocatur actus rectus quo intelligimus obiectum extra animam, et actus reflexus quo intelligitur ille actus rectus.'

99. See Quodl. III, q. 8, OTh IX, pp. 233-4: 'Loquendo de primo assensu, dico quod ille actus non habet complexum pro obiecto; tum quia ille actus potest esse per solam formationem complexi et sine unius apprehensionis complexi ... tum quia laicus sciens quod lapis non est asinus, nihil cogitat de propositione ... Licet assentiat et sciat quod percipit ... '

100. Ibid., p. 234: ' ... dico quod propriam quoque, desbet debet dici quod aliquid scitur in acta, sed quod in acta scitur quod lapidem et asinum ... ' See also Quodl. IV, q. 16, OTh IX, pp. 376-7, and Quodl. V, q. 6, OTh IX, p. 500, where the same distinction is drawn.

101. Ibid., p. 234: ' ... iste actus [namely the non-reflexive judgement that a stone is not a rabbit] habet res extra pro obiectis, puta lapidem et asinum ...'

102. Ibid., p. 234: ' ... iste actus sequitur quantum ad multa alia composita quod aliquid scitur.'
Chapter 3

Concepts as Signs

Generality for Ockham is but a matter of signification, and concepts are the prime bearers of it. That concepts should be signs, therefore, is a crucial requirement of Ockham's nominalism. What it means, however, is not self-evident. In his 1994 book, *Nominalisme*, the French scholar Cyrille Michon has forcefully argued that Ockham's position on this point is ultimately unintelligible. My aim in the present chapter will be to take up Michon's challenge. I will first explain what the problem is with concepts being labelled as signs in the Ockhamistic framework (section 1). Ockham's definition of a sign in the *Sum of Logic* will then be scrutinized (section 2), and how it applies to concepts will be spelled out (section 3). I will explore, finally, the consistency of taking concepts to be signs in this precise sense with two central Ockhamistic tenets: conceptual atomism (section 4) and nominalism itself (section 5).

1. The problem: How can a concept ever be a sign?

The standard conception of a sign, in Ockham's times, was directly dependent upon Augustine's famous definition: 'a sign is a thing which, in addition to the impression it produces upon the senses, brings by itself something else in our thought.' Taken literally, this venerable definition squarely excluded intellectual entities such as concepts from the realm of possible signs, since it required all signs to produce some 'impressions' of their own upon the senses. Already in the thirteenth century, however, the habit had been taken to sometimes classify intellectual representations as signs too and to drop, consequently, the Augustinian clause about the impression upon the senses. Roger Bacon, for one, was explicit about this in the 1260s: 'not all signs', he wrote, 'are given to the senses as a popular description of sign supposes, but some are given to the intellect only.' The rest of the Augustinian definition came to be taken as what really mattered: saying that a concept is a sign was, *prima facie*, to say that it brought to the mind something different from itself.

One intuitive way of seeing how this raises a special difficulty for Ockham's later view that concepts are intellectual acts is to remark that the very notion of a sign as bringing about the cognition of something else seems to involve a ternary structure where Ockham would admit of only two items. For we should have, apparently, not only the sign itself (that which brings about something) and the external thing (that about which a cognition is activated by the sign – its 'significate' in Ockham's vocabulary), but also a third item: the cognition – or recognition – that the sign is supposed to bring about within the agent who understands it. Describing the concept as a sign seems to require the postulation of some intellectual interpretation of it within the mind, which interpretation, of course, could not in turn be identified with...
a sign without the threat of an infinite regress. Ockham, on the other hand, simply equates the conceptual sign with the intellectual act, leaving no room for a third item which could serve as interpretation for the concept. Without interpretation – or understanding – one could not speak. How, in either world, could Ockham literally apply to concepts the key-clause of the Augustinian definition of a sign, namely that a sign should ‘bring something in our thought’? 1

There is indeed a passage of the Ordinatio where the ‘enirebilia Interior’ discusses the meaning of a closely related phrase; dicere in notitiam (to lead to the cognition of something!). It does nothing much, unfortunately, to alleviate our difficulty. Ockham there distinguished between dicere in notitiam, none of which can be applied to the conceptual acts of his later theory. Here is the text:

That something leads to the cognition of something else can be understood in two ways. Either it causes the cognition of this other thing by means of being cognized itself, in such a way that the cognition of it should be the cause of the cognition of the other thing. Or immediately, without being cognized, just as the intellect leads as a cause to the cognition of any intelligible object. 2

Conceptual acts – as Michon rightly points out – cannot ‘lead to the cognition’ of their significates in the first of these two senses, since they do not have to be themselves the objects of a cognition to function as a sign, in Ockham’s view. But, Ockham there distinguishes dicere in notitiam, none of which can be applied to the conceptual acts of his later theory. Here is the text:

That something leads to the cognition of something else can be understood in two ways. Either it causes the cognition of this other thing by means of being cognized itself, in such a way that the cognition of it should be the cause of the cognition of the other thing. Or immediately, without being cognized, just as the intellect leads as a cause to the cognition of any intelligible object. 3

In the first sense of signum, according to this characterization, a sign, just like an image or a trace, is typically reminiscent of something which has previously been known in some other way. But, Ockham says, this is not the meaning he wants in the context of his logical treatise; it is the second one. Since conceptual signs are central to logic in his view, we can safely conclude that a concept, in his theory, is a sign in the second sense. This, no doubt, is Ockham’s considered answer to the question we are discussing in the present chapter.

Michon, however, takes this answer to be unsatisfactory. All signs other than concepts, he remarks, are signs in the first sense. The spoken word, the barrel-hoop in front of the tavern, even smoke with respect to fire, all of these are, he says, ‘recordative’ signs; they serve as signs in so far as they recall for us something that is already known in some other way. But, Ockham says, this is not the meaning he wants in the context of his logical treatise; it is the second one. Since conceptual signs are central to logic in his view, we can safely conclude that a concept, in his theory, is a sign in the second sense. This, no doubt, is Ockham’s considered answer to the question we are discussing in the present chapter.

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between the first two on the one side, and the third one on the other, two differences which are closely related to one another; first, he concept naturally signifies whatever it signifies, 'whereas the spoken or written term signifies only conventionally';16 and second, the signification of spoken and written words can be changed at will by the speakers, while that of concepts can't.

This is where the (real or imagined) hairsplitter breaks in. What he must have asked himself is: if I take it, is this, aren't the spoken words natural signs too?2a Looking at the text again with this in mind, its organization and progression become clear. Ockham introduces the first sense of *signum* and then concedes that in this sense, yes, 'a spoken word is indeed a natural sign'. But, he adds, this is not the sense in which he is interested in. Having given the second — and more relevant — meaning, he finally concludes that 'taking the term "sign" in this sense the spoken word is not the natural sign of anything'. The distinction between the two senses of *signum* is introduced to settle a difficulty concerning spoken words, and not especially a problem about concepts.

It is true, of course, that it does clarify, in the process, the precise meaning in which we can say that a concept is a sign in Ockham's epistemology. But it does so by spin-off, the strategic point of the distinction being to neutralize the hairsplitter's objection that spoken words, after all, are natural, rather than conventional, signs. It so happens that both questions are simultaneously settled by the clarification of the second sense of *signum*. But, as the concluding sentences indicate at the end of each definition, the point of the move, first and foremost, was to elucidate the status of spoken words, not that of concepts. This in itself tells against Michon's claim that the second sense of *signum* was an ad hoc invention of Ockham in view, solely, of including concepts among signs.

Sticking to the first — and admittedly more traditional — meaning of 'sign', nothing would have prevented him from saying, with the ha reptilian, that spoken *sounds* are natural signs.21 Doesn't a laughter, or a groan, or even a simple intonation of the voice, reveal, by some natural connection, the mental state of whoever it is? Ockham himself: spoken sounds just like anything else, naturally evokes its cause, exactly like smoke calls for the mind. So there is a case for saying that a spoken word is a natural sign of something: it can, like anything else, reveal to the mind what has any causation, connection, for instance). But the sense in which this is true is of no special interest for logic as Ockham conceives of it. The second sense — the one he favours in the context — corresponds to a completely different notion; Michon is certainly right that there is an equivocity here for *signum*. This equivocity, however, does not depend — as Michon thinks it does — on Ockham's eagerness to include concepts among signs.22 It follows, rather, from his attempt to delineate, besides the usual and more especially a problem about concepts, the scientific sense of *signum*, another one — a technical one — which could be of service for logic as a science of arguments, propositions and their components, whether spoken, written or mental.23 A precise understanding of this second definition is needed to catch its motivation and relevance, and to see how exactly the two meanings of *signum* are connected with each other: Ockham's formulation is punctuated with 'and', 'or'. Even the logical form of the definition is not immediately perspicuous. The surface structure of the sentence apparently suggests a conjunction of two clauses, the second one being a disjunction. A sign in the second sense, according to this reading, should:

(A) bring something else to cognition, and

either (B1) be able to supposit for that thing in a proposition,

or (B2) be able to act as a syncategorematic term in determining the logical and semantical roles of other terms within the proposition,

or (B3) be composed of such signs, like a complex expression or a sentence.

It would follow that all signs in the second sense, like all signs in the first sense, would 'bring to cognition' something different from themselves. This, however, can hardly be what Ockham had in mind, since syncategorematic terms at least — which are explicitly counted as signs according to sense number two — do not satisfy clause (A) in his view: there are no particular objects that *syncategoremata* such as 'if', 'and', 'all', or 'not', specifically bring to mind. They lack, as Ockham stresses in this very passage, 'a determinate signification'.24

In all consistency with the rest of the semantical theory, the definition, instead, should be read as a disjunction of three clauses, the first one of which is a conjunction. A sign in this sense must:

either (A) bring something else to cognition, and (B1) be able to supposit for that thing in a proposition

or (B2) be able to be added to the signs of the precedent category within well formed sentences in some language,

or (B3) be composed in an appropriate way of signs of the previous two categories.

It thus becomes clear that the second sense of *signum* does not merely correspond to a particular case of the first, which would then have been artificially enlarged simply to include concepts, as Michon suggests. Signs which specifically belong to category (B2) in particular (*syncategoremata*, that is), do not (in so far as they are of interest to logicians) 'bring something else to mind'. And this is true not only of conceptual, but also of conventional *syncategoremata*. Ockham simply takes it for granted that the term *signum* as it is used in logic, must apply to *syncategoremata*. This has nothing to do with its postulation of an *oratio mentalis*. The medieval logicians' interest for *syncategoremata* and the habit of calling them *signa* were well entrenched long before him.25 His definition here simply takes due account of the practice and terminology of his fellow logicians: a technical sense of *signum* was needed to cover — at least — the case of *syncategoremata*, whether spoken, written or mental.

The point, admittedly, is not as obvious for signs of category (B3), that is, sentences and other complex expressions, but in this case too, the advantage of the disjunctive reading of the definition, as I just reconstructed it, is that it does not force us to countenance proper significates for such special kinds of signs. Sentences as a whole, in this perspective, do not need, any more than *syncategoremata*, to bring something distinctive to mind in order to be correctly described as signs in the
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B1), to be able to play syncategorematic roles (B2), or to be composed of such signs (B3) — correspond to derivative functions which all have to do with the combination of signs with each other within sentences. Ockham's technical definition restricts the domain of signs which are of interest for logic, to those that can occur, in some capacity or other, in the well-formed sentences of a language. The primary advantage of this move is to provide at the outset, for students of logic, a precise characterization of signs in terms of the semantical and syntactical functions which will be studied in detail in the subsequent chapters of the Sum of Logic. In so far as this strategy produces something new, it is not only to legitimize the classification of concepts as signs; it is, mainly, to identify a well-delimited network of semantical and syntactical features which are basic for the study of logic. These features do not especially depend upon Ockham's particular theory of concepts. The joint, original, is to explain in what sense of signum spoken words can be said to be conventional, rather than natural, signs. And this leads in the process to the formulation of a new definition, based on what we call today semantical and syntactical relations. This definition is suitably tailored to the needs of logic as a science (terminist logic, in particular). It also suits Ockham's epistemology, of course; but this was not its sole — or even primary — intent. There is no objectionably ad hoc manoeuvre here, after all.

3. Conceptual roles

To say that internal thought is made up of signs comes down, in this perspective, to crediting it with a propositional structure, the very subject predicate structure indeed that the terminist logicians had been studying in spoken languages for decades before Ockham. The basic idea for this language-minded approach to thought was already in Aristotle, for whom concepts (noemata), although prior to linguistic words, could combine, just like words, into propositions, true or false. The whole Aristotelian tradition had acknowledged this requirement, even when it had not made use of the vocabulary of signification to talk about concepts. Thomas Aquinas, for one, tended to reserve the term signum for recordative signs, but he accepted without qualms the idea of true or false mental propositions, structurally corrisponding to 'concepts' representing external things. Identifying the concept with the cognitive act (as in Ockham's mature theory) rather than with its object (as in his former theory and in that of Aquinas) does not render this terminological transposition less intelligible; on the contrary. Once the characterizing categorematic terms in general (whether spoken, written or mental): the referential drive, the fact that they relate the mind to something different from themselves. The role of clause (A) in Ockham's technical definition of signum is to introduce the semantical connection proper: the reference of (some) signs to objects in the world.

The other three clauses in the definition — to be able to supposit in a proposition
thought is the general validity of a certain functional description of human mind, according to which some mental units with a referential import can be combined with each other into true or false propositions. This picture in effect was quite generally accepted in Ockham's times.

This is not to say that it is a trivial picture. The precise functional model Ockham finally adopted supposes a rather complex conception of the working of the mind. Let us consider again, to bring it out, the functional roles that are mentioned in one way or another in the new technical definition of signum. There are four of them:

(R1) being something else to cognition (this is a clause (A) in the presentation I gave above of Ockham's definition number two),

(R2) supposing for this in the context of a proposition (this is clause (B1)),

(R3) being added within a proposition to signs satisfying both (R1) and (R2) (this is clause (B2)),

(R4) being a well-formed combination (in one language or other) of signs satisfying either (R1) and (R2), or (R3), a complete sentence for example (this is clause (B3)).

(R1) corresponds with Ockham's semantics to signification in the strong sense — the significatio jinita, the genus (that of the copula, for instance, or of quantifiers or connectors), and (R4) to the functions of the proposition itself, that, in particular, of being the bearer of a truth-value. Ockham's definition explains these four types of roles to differentiate three kinds of signs: those that fulfill (R1) and (R2), they are the categorematic terms; those that fulfill (R3) only, they are the syncategoremata; and those that fulfill (R4), such as propositions (or sentences) and other complex expressions.

Three out of these four roles — (R2), (R3) and (R4) — directly have to do with the formation of propositions. Taken together, they constitute the distinctive element in the technical sense of signum Ockham wants for logic. Human beings are depicted as capable of coherently entertaining true or false propositionally structured beliefs about things other than themselves. The basic role of logic, in this perspective, is to explain what it is for a proposition to be true or false, and what it is for a concept to be incompatible with another one, or to follow from it. The technical notion of sign Ockham thinks appropriate for the field is built up with these tasks in view.

Admittedly, this model of the mind also calls for an epistemology; Ockham does provide one, which is discussed in some detail in other parts of this book. But his distinctive epistemological doctrines about concepts, intellectual acts, intelligibility and so on, are not presupposed by the new definition he proposes for signum.

The identification of the concept with a sign on the one hand, and with an intellectual act on the other hand does allow, within Ockham's mature theory, for a wealth of connections between ontology, logic, epistemology and philosophy of mind. But this, on the whole, is quite legitimate. Terminist logic had been interested in semantical and syntactical functions such as supposition and syncategorematic roles long before Ockham, and the general intelligibility of such notions does not depend upon how Ockham develops his epistemology in the Ordinatio or in the Quaestiones Quodlibetales. The second definition of signum, which is built up on the basis of such functions, did not have as its main objective to cover the case of concepts, but to delineate with some precision — in a purely functional way — the set of units which are required by logic as a science.

4. Atomism or propositionalism?

A number of interesting problems still remain about Ockham's treatment of concepts as signs in the second sense. One of them is whether Ockham's semantical theory is best labelled as 'atomistic' or 'propositionalistic', given his technical definition of signum, a debate that went on not too long ago in the literature.23 It comes out, at this point, that propositional roles loom large in the logical definition of a sign. Yet it must be stressed that this definitional insistence on propositional combinations is by no means incompatible with the theory of conceptual meaning as being of an atomistic sort basically. A correct understanding of how concepts can function as signs is at stake here. Simple concepts, for Ockham, receive their signification one by one, on the basis of the intuitive acts that originally triggered their formation. As we have seen in the previous chapters, getting intuitively acquainted, say, with a particular chickadee is both sufficient and necessary, under normal condition, for causing the formation of a simple natural-kind concept for chickadees. More general concepts — genus concepts — presuppose the antecedent formation of several species concepts; their meanings, nevertheless, are not given to them by a process of syntactical — let alone propositional — combination, but by a causal chain.24 Structured propositional thoughts become possible only after their categorematic components — the concepts — have, each of them, independently received a signification.

A number of commentators have suggested, in the 1960s and 1970s, a 'propositionalist' reading of Ockham's semantics, according to which the proposition rather than the term is 'the primary complete linguistic unit' and the 'primary reality' of cognition in Ockham's system.25 Their main argument, precisely, rested on the technical definition of 'signum' we have just been considering. Look, they would say, Ockham defines the very idea of a sign on the basis of propositional roles such as supposition; doesn't this show that signification as a property of single terms must presuppose the formation of one or more complex expressions of some propositional combinations?26 We are now in a position to see with some precision why this is not so in Ockham's theory. Among the four defining functions for signs (R1) — (R4), three can be fulfilled only within the context of propositional complexes: supposition (R2), syncategorematic roles (R3) and properly propositional roles (R4). But this is not so for (R1). Which is no detail. Categorematic terms are the fundamental stuff out of which thought and language are made in Ockham's semantics, and (R1) identifies their primary function: that of calling something else to mind. This is signification proper. It must belong to single categorematic terms before any proposition involving them can be formed. And this is especially true for conceptual signs: 'All judicative acts presuppose ... the incomplex cognition of the terms, since it presupposes an apprehensive act, and all apprehensive acts with respect to complexes presuppose the incomplex cognition of the terms.' 27 In other words, a mental judgement presupposes the formation of a mental proposition, and mental propositions, in so far as they are
complex arrangements of terms, presuppose that their categorematic components have already been endowed with cognitive significations; they should already, independently of any proposition, refer the mind to some objects in the world. Functions (R2) and (R3) can be fulfilled in the language of thought only if some terms— the categorematic concepts, namely— antecedently fulfill (R1). Such is Ockham’s brand of conceptual atomism.

That the idea of supposition occurs in the definition of ‘signum’ in chapter 1 of the Summa Logicae, and in the definition of ‘significare’ in chapter 33, in no way reflects a priority of supposition over signification. The definitional order, here, does not reveal the order of priority among the functions themselves. Why should it? The ideas of signification (as a prepropositional function) and supposition (as a propositional function) are intimately connected in Ockham, to the point of interdefining each other.4 The corresponding functions, however, are clearly hierarchized: signification is prior and more fundamental, a supposition is derivative, and so are the other propositional roles in their own way. The notion of a propositional act that would be primary—or even simultaneous—either chronologically or logically with respect to the signification of its categorematic components ultimately fails no place in Ockham’s semantics. And the (chronological or logical) priority of a mental proposition over the signification of its conceptual components is incompatible with Ockham’s most distinctive tenets in epistemology.5

On the other hand, there is an important kernel of truth in the propositionalist interpretation that must not be minimized. All three sorts of signs in the logical sense—categorematic terms, syncategorematica, and complex phrases—must, by virtue of the definition of signum favored by Ockham, be able to play a part within a proposition. This has to be true of concepts, in particular, or so far as they are signs in the technical sense. Nothing is a concept unless it can be combined with other concepts and mental syncategorematica into mental propositions. The propositionalist commentators went too far, no doubt, when they suggested that a sign ‘has no meaning or validity, if it is not playing the process of a proposition’.6 But what they were rightly pointing at is that any unit of thought or language, for Ockham, must be either a proposition, a combination of propositions, or an element capable of occurring within a proposition.

Note that in the latter case, it needs not ever actually appear in any propositional context in order to be a sign: the definition of signum does not require the actual occurrence of the sign in a proposition. But under normal conditions all conceptual signs soon find their way into propositions. It is their normal fate. The original formation of a general concept is, so far as it is based on intuitive cognition in Ockham’s picture, which normally be immediately followed by the formation of at least one mental proposition of the form ‘this is an F’ or ‘this G is an F’. Such propositions only concern general categorematic terms have been endowed with significations, and as the effects of such endowments (effects which, let me insist, persist and have been linked to its temporal and spatial context of occurrence. Yet this should not keep us, as Ockham makes clear in the same passage, from speaking sometimes
of "the same act generically, rather than numerically." Having in view generic (or specific) sameness, it is acceptable to say that the same act - the act of loving somebody, for example - recurses at different times and places in a given process. The remark, of course, is directly relevant for the descriptive use of conceptual signs. It is, fortuitously, as they are supposed to occur first outside any propositional combination, and then within various such contexts successively. What the passage shows at any rate is that Ockham's approach to the speaking of types in psychological and semantical matters was not inconsiderate. He felt confident that talk which is apparently about types in such matters can be rendered legitimate within his nominalistic system, as a special case of reasoning about generic (or specific) sameness.

In other words, the status of semantical types such as the word 'horse', the concept 'animal', or the proposition 'a horse is an animal', is but a special case with respect to the generically true propositions of universals. Ockham's approach to it, then, should be expected to follow his preferred strategy for solving universals and abstract entities: that of reinterpreting an apparent reference to a single universal into a distributive reference to several singulars. The word 'horse' signifies a singular horse; no common horiness is required at any stage. This, surely, is the approach Ockham would want to extend to the treatment of apparent references to semantical types. Speaking of the word 'horse' or the concept 'horse' should be understood, in this perspective, as a way of distributively referring to singular speech or thought episodes.

How this is supposed to work obviously calls for some spelling out. But we can build progressively on Ockham's own tests. Let us start with type identity within a single agent. The case is easier to figure out. How, let us ask, can different mental episodes in the life of a given agent be grouped into legitimate types? How is it that several numerically different conceptual acts of mine can be correctly counted as instances of the same concept? The obvious place in Ockham to look for an answer to such a question is the theory of causal chains within the mind. As we have seen above in chapter 2, a singular conceptual act a1 of mine, according to Ockham's epistemology, to a definite causal chain of acts and habitus. Such chains normally start up with intuitive acts, and are made, afterwards, of abstractive acts (or concepts) and their corresponding habitus in alternance: 'a habitus is the cause of an act, but not of the same act numerically as the one it was caused by, but it is the cause of a further act. Similarly, an act is the cause of a habitus, but not of this habitus by which it was caused, but of another habitus or of another degree in the habitus.'

A typical chain has the following form: intuitive act \( \rightarrow \) first abstractive conceptual act (prima abstractiva) \( \rightarrow \) habitus, \( \rightarrow \) conceptual act, \( \rightarrow \) habitus, \( \rightarrow \) conceptual act, \( \rightarrow \) habitus. \( \rightarrow \) There is, in this perspective, a causal connection between conceptual acts one, two, three and so on. And this causal connection is taken to implement semantical equivalence among them. How exactly it does that is something we will have to discuss in some detail later on. As it only assumes a further act, now, as a crucial part of Ockham's epistemology, that if a conceptual act is caused in the right way by a certain habitus, then it inherits the semantical features of the act that had caused (in the right way) this very habitus. Causal chains of the relevant kind must be semantically conducive. This appropriately provides us with the possibility of a clear criterion for specific identity among the conceptual acts of a given agent. Let me propose the following as a plausible candidate: two singular conceptual acts within a given agent belong to the same conceptual type if and only if (1) they both belong to a single causal chain of the kind indicated above, and (2) they are semantically equivalent to each other.39

Of course, the satisfaction of condition (2) should follow on, normally, from that of condition (1). But since we have not yet examined how this link is secured, we better at this point mention both conditions, simply keeping in mind, for the moment, that condition (2) might turn out to be superfluous.40

However that may be, once we have clear and stringent identity conditions such as those - with or without condition (2) - there is no harm, presumably, in making use of a type-idiom, with such typical phrases as "the term a' or 'the proposition p". Such phrases can legitimately be taken as distributively referring to certain singular acts of the same kind, just as 'horse' distributively refers to singular substances of the same kind, and 'whiteness' to singular qualities of the same kind.

Type-prises, of course, do not usually occur in the plural. We do not say "the habitus 'a' or 'the concept 'horse' or "the proposition 'a horse is an animal'" in the way we say 'horses' or 'animal'. But this can be seen as a surface feature of our spoken and written languages, probably reflecting the fact that what is said of a given mental act when we treat it as part of a semantical system should equally be said of a number of other tokens connected with it in some determinate way.

The same approach can be extended to the interpersonal situation. In order to legitimate the grouping of conceptual acts into types across agents, we need to devise a similarly inspired set of precise conditions. We can follow for this the very same policy we have been following in the intrapersonal case: that of combining a causal condition with a semantical one (the latter, maybe, being ultimately dispensable). What this approach yields is this: two singular conceptual acts a1 and a2 of two distinct agents can be said to be of the same conceptual type if and only if:

1. the intrapersonal causal chain to which a1 belongs has been set in motion (in the right way) by the intuitive apprehension of an individual \( l \) which is of the same natural kind as the individual \( l \) which triggered (in the right way) the intrapersonal causal chain to which a2 belongs;
2. a1 and a2 are semantically equivalent.

Condition (1) presupposes, of course, that two different individuals in the world can indeed be correctly said to be 'of the same natural kind'. But Ockham has no problem with this. He willingly admits that some things are, as a matter of fact, of the same natural kind as certain others, independently of the human mind: "that something is similar to another thing is not brought about by the intellect, he writes, any more than that Socrates is white, or that Plato is white'.41 Ockham's rejection of such special extra entities is needed to preserve the legitimacy of general terms, in Ockham's view, does require individual things to be naturally ordered somehow independently of the human mind.42 What his nominalism resolutely wants to avoid is the reification of such orderings into special entities of their own. The semantics
AND THE EPISTEMOLOGY ARE DESIGNED TO ACHIEVE JUST THIS. THE CRITERIA FOR SEMIOTICAL TYPES, THEN, CAN LEGITIMATELY MAKE USE OF SPECIFIC OR GENERIC GROUPINGS, ESPECIALLY IF THEY CAN BE INDEPENDENTLY ASCERTAINED.

IN THE END, THE CHARACTERISTIC TYPE-IDIOM OF SEMIOTICS CAN BE LEGITIMIZED, WITHIN OCKHAM'S SYSTEM, BY CHAINING DOWN TO US INVITING US TO DO, AN APPARENT REFERENT TO AN ABSTRACT ENTITY IN A DISTRIBUTIVE REFERENCE TO SEVERAL WELL-DETERMINED SINGULAR ENTITIES. THE SALTIER PARTICULARITY OF SEMIOTIC TYPING, AS WE HAVE RECONSTRUCTED IT HERE, IS THE DISTINCTIVE ONETOPIE WITH CAUSAL HISTORY AND NATURAL KINDS. OCKHAM'S CONViction, OBVIOUSLY, IS THAT CERTAIN SINGULAR CONCEPTUAL ACTS ARE SO NATURALLY CONNECTED WITH EACH OTHER THAT SEMANTICAL EQUIVALENCE BETWEEN THEM IS (NORMALLY) SECURED.

ON THE WHOLE, THEN, IT IS QUITE TRUE THAT TREATING CONCEPTS AS SIGNS RAISES A NUMBER OF DELICATE QUESTIONS FOR OCKHAM'S MATURE THEORY OF CONCEPTS. SOME, AS CYRILLE MICHON'S, HAVE TO DO WITH THE EXACT SENSE OF 'SIGN' THAT IS USED IN SUCH A CONTEXT. OTHERS PERTAIN TO THE CONSISTENCY OF THIS SEMIOTICAL APPROACH WITH OCKHAM'S CONCEPTUAL ATMOSPHERES OR WITH HIS STRICTLY NOMINALISTIC ORIENTATION FOR CONCEPTS ACT.

WHAT I HAVE TRIED TO SHOW IN THIS CHAPTER IS THAT THE THEORY HAS FRUITFUL RESOURCES AT ITS DISPOSAL FOR DEALING WITH THESE PUZZLES. THE TECHNICAL DEFINITION OF 'SIGN' OCKHAM PROVIDES AT THE VERY BEGINNING OF THE SUMMA LOGICAe TURNS OUT TO BE AN UNUSUALLY ELABORATE ONE. IT HARMONIZES, IN PARTICULAR, THE AUGUSTINIAN SEMANTICAL REQUIREMENT OF 'BRINGING SOMETHING TO MIND' WITH THE SPECIAL INTEREST OF LOGIC FOR SYNTACTICAL COMBINATION. ITS MOTIVATION, NEEDS OF TERMINOGICAL AS IT AS HAD DEVELOPED IN THE PREVIOUS CENTURY. BUT THE DEFINITION DOES INFORM US, AT THE SAME TIME, AS TO THE EXACT SENSE IN WHICH A CONCEPT IS SAID TO BE A SIGN IN OCKHAM: IN VIRTUE OF ITS CAUSAL HISTORY, IT REPRESENTS WITHIN THE MIND SEVERAL INDIVIDUALS OF THE WORLD IN SUCH A WAY THAT IT CAN STAND FOR THEM IN VARIOUS MENTAL PROPOSITIONAL COMBINATIONS, THE TRUTH-CONDITIONS OF WHICH IT WILL THEN DETERMINE IN DEFINITE WAYS. OCKHAM'S DISTINCTIVE NOMINALISTIC CLAIM IS THAT A SEMIOTICAL SYSTEM OF THIS SORT IS INDEED REALIZED WITHIN THE MIND THROUGH CAUSAL CHAINS OF SINGULAR MENTAL ACTS AND HABITUS.

NOTES

1. Augustine, De doctrina christiana, II, 1.1, ed. Mar 1622, p. 32: 'Signum est enim res praeter speciem, quam ingenti sensibus, aliquid aliai ex se faciendum cognitionem venire.'
2. Roger Bacon, De signis, ed. Freudenthal et al. 1978, p. 82: '... non omne signum offerit sensu, et sicut distincte praebere offerit, sed aliquid soli intellectui offerit ... ' On the progressive acceptance of purely intellectual signs in the thirteenth and early fourteenth century, see Meier-Oeser 1997, chap. 2, and Panaccio 1999a, chap. 5.
5. This problem, actually, also arises in connection with the first sense of ductive in notionum: both meanings, as characterized in the passage quoted above, require the causation of some cognition.

6. SL, I, 1, OPH I, pp. 8-9: 'Propter tum opus etius sicut signum duplum acceptum: Unum modo pro omne illi quod apprehensum aliqua aliquid facit in cognitionem venire, quamvis non faciat mentem venire in primam cognitionem eius, sicut alii est omne quod apprehensum aliqua aliquid facit in cognitionem venire et natum est pro illo supponere vel tali addi in propositione, cuiusmodi sunt syncategoremata et verba et illae partes orationis quae finitam significationem non habent, vel quod natum est componi ex simplicibus.' The English translation given here is very much inspired by that of Loux 1974, p. 51, but it differs from it in many details. Among other things, I favour the reading of sic instead of sicut at the beginning of the sentence about the wine in the tavern (thus following a number of good manuscripts; see the critical apparatus for the beginning of the sentence about the wine in the tavern (thus following a number of good manuscripts; see the critical apparatus for SL I, p. 9).
8. Ibid., p. 40.
9. Ibid., p. 156.
10. Ibid., pp. 42-3.
13. In what sense spoken words could be said to be natural signs had been discussed, for example, by Roger Bacon in paragraphs 8 to 14 of his De signis (ed. Freudenthal et al. 1978, pp. 83-6).
14. It should be noted that signs in the first sense of sign are not all of them 'natural' in Ockham's view. The barrel-hoop in front of the tavern, which he also mentions as an example of signs in the first sense, was a paradigmatic example of a conventional sign or a conventional connection. This is why the choice of barrel-hoop awakens for whoever has already drunk wine (or even only seen one) but this is due to a conventional convention. This is the very choice of the barrel as a sign of the above quoted passage (from OPH I, p. 9) seems unhoped. I would favour use, along with many good manuscripts. The barrel-hoop, according to this reading, is given as an example, not of a natural sign, but of a recordative sign in general. The point, anyway, is minor.
15. See Michon 1994, pp. 36--40.
16. See SL, I, 1, OPH I, p. 7: 'Omnes logicae tractatores intendunt astruere quod argumenta ex propositionibus et propositionibus ex terminis componentibus? This is the very first sentence of the treatise proper.
17. William uses this very same phrase (non habet finitum significandum) to characterize syncategoremata in general in SL, I, 4, OPH I, p. 15.
18. See the text quoted above in n. 3.
20. See Thomas Aquinas, Quaer. Disp. de Veritate IX, 4, 4a; and S. Theol. III, 60, 4a, ad 1.
21. This is the Thomistic theory of the 'mental word' (verbum mentis) as it is presented, for example, in Aquinas's commentary on John's Gospel (Super Evang. S. Ioannis), and in his commentary on the Peripatetics. I have examined this doctrine in some letul elsewhere (Panaccio 1992b, 1999a, chap. 6, 2001).

24. See supra, chaps. 1, sect. 3.

25. See De Andrade 1969, p. 239-240, 233-6, and passim.

26. They would usually mention, in the same spirit, Ockham's discussion of the verb 'significare' in SL I, 33, OTh I, pp. 55-66, where the first two — and more basic — senses of it are characterized in terms of the propositional function cf. supposition: 'Nam uno modo dictum signum aliquaque significare quando supponit, et una cum est supponere pro illo.' Alias accepter 'significare' quando illud signum in aliqua propositione de praetorio vel de futuro vel de praestans vel in aliqua propositione veris modo potest ut illud supponere' (p. 95).

27. Ord. I, Prol., q. 1, OTh I, p. 21: '... omnis actus iudicus presupponit ... notitiam incomplexum terminorum, quae presupponit actum apprehensivum. Et acta apprehensiva, respectu inscripti componunt notitiam incomplexum terminorum ...' And a few lines further down the same page: '... per quod intellectus nullam propositionem potest formare, nec per consequens apprehendere, nisi primo intelligat singulare, id est incomplexum.'

28. In SL I, 63, Ockham uses the adverb 'significativus' (significativi) in his definition of 'supposition' in general; in the next chapter, he uses both the adverb 'significativus' and the verb 'significare' in the definition of personal supposition.

29. Even in the basic case of the intuitive cognition and the propositional acts that it causes in the mind (such as 'Socrates exists', 'Socrates is sitting', or 'this exists'), Ockham is eager to maintain that they are distinct from each other (see Or. I, Prol., p. 1, OTh I, p. 66: '... dicis quod notitia illius intuitiva et illud indicium distinguens realiter ...'), and that the latter is caused by the former.


31. Ockham admits that an intuitive cognition could happen, in special circumstances, not to be followed by any judgement as is normally the case (see Or. I, Prol., q. 1, OTh I, p. 70: '... dicis quod potest fieri illa notitia intuitiva sine iudicii consequentia.' It must be so, a fortiori, for the abstractive cognition with respect to any proposition whatsoever.

32. Conceptual atomism and the compositional propositional picture of human thought are both at the heart of Fodor's recent theory of concepts (Fodor 1998).

33. This is presupposed, for example, by such statements as the following: '... any term which can in any way be a part of a proposition can exhibit material supposition' (suppositio materialis nullam quaecumque modo potest esse pur pura propositions competitum potest). SL I, 67, OTh I, pp. 205-6; transl. Loux 1974, p. 197), which strongly suggests that the very same term can have personal supposition on some occasions, and material supposition on other occasions. The same, mutatis mutandis, is said of simple supposition in SL I, 68, OTh I, p. 207.

34. See Arystoteles, Metaphysics, 6.1016a22-3.

35. Quaest. Var., q. 7, art. 5, OTh VIII, p. 351: '... non potest esse idem actus numero primo sine circumstantiali et postea cum circumstantiali.'

36. Ibid.: '... idem actus saltem genere, non accipit numero ...' The distinction between specific and numerical identity is also applied to acts in Quid. III, q. 21, OTh IX, p. 287.

37. Rep. III, q. 8, OTh VI, p. 205: 'Unde habitus est causa actus, sed non eiusdem numero a quo causabatur, sed est causa alterius actus. Similiter, actus est causa habitus, sed non illius a quo causabatur, sed vel alterius habitus vel alterius gradus in habito. The same point is made in Quid. III, q. 21, OTh IX, p. 287.

38. See infra, chap. 7.
Connotative Terms in Mental Language

Being signs in the logical sense, concepts, for Ockham, are the primary objects of logic. The newly introduced tools of termist logic, in particular, are thus systematically developed and used by him as a framework for the fine-grained analysis of human thought. Concepts are seen as the general categorematic terms of mental language, and the technical ideas of signification (significatio) and supposition (suppositio) serve in the Summa Logicae as the basis for a detailed non-nominalistic theory of truth-conditions for mental propositions. As I have tried to show elsewhere, it is one of Ockham's original contributions to Western philosophy that he inventively turned the technical apparatus of the language sciences of his time into a theory of how the human mind ideally works.¹

This approach, as Ockham was well-aware, raises a number of intriguing and fruitful questions as to which semiotic categories exactly can legitimately be transferred to the logical study of the language of thought. One such question, in particular, has recently come to the forefront in the Ockham literature, and it has, somewhat surprisingly, turned out that the understanding of Ockham's whole programme about conceptual thought is at stake in this apparently technical point. This chapter and the following two will be devoted to this discussion.²

The problem, in its simplest form, is the following: does mental language, as Ockham understands it, include simple connotative terms?³

The distinction between absolute and connotative terms outlined by Ockham in part one, chapters 10, of the Summa Logicae, plays a major role in his general nominalistic approach. Certain signs—the connotative ones such as 'white', 'father', 'movement', 'time', and a lot of others—are endowed with a hierarchized internal semantical structure: in addition to their primary signification, they are said to have a connotation (or secondary signification) and this semantical duality allows in crucial cases for major ontological simplifications. The non-connotative categorematic terms, on the other hand, are called 'absolute'; they have only a primary signification and no connotation.

In an influential paper published in 1975, Paul Vincent Spade has ably refuted the idea that, although he does not explicitly say so, Ockham's best theory would be that: 'There are no simple connotative terms in mental language; all simple or non-complex concepts are absolute mental terms.'⁴ This has been accepted by many of the best Ockham scholars.⁵ But it has long seemed to me that such an admission would be fatal to Ockham's nominalism for the following reason: all relational terms, according to him, are connotative (this is precisely what allows him to do away with relations in the ontology). If, then, mental language had no simple connotative terms, it would follow that there are no simple relational concepts; but as is well-known since at least Bertrand Russell, it is logically impossible to construct all relational concepts exclusively from non-relational simple ones.
Ockham's nominalistic doctrine of thought and relations would therefore be doomed to failure.

This worry prompted me to re-examine carefully a large number of relevant passages in Ockham, and this led me to the surprising conclusion, which I will defend here, that Spade and all those other commentators whom I deeply respect are just wrong on this: Ockham consciously thought that there are simple connotative concepts in mental language (section 2 below) and nothing else says commits him to the contrary (sections 3 and 4).

1. Connotative terms

Let us first recall some of Ockham's main theses about the distinction between absolute and connotative terms. It is presented by him as a division among categorematic terms, which are those signs—such as 'man', 'white', 'mother', 'concept', etc.—which are normally used to refer (or purport to refer) to individual things in the world or in the mind. In a nominalistic vein, any such term is said to primarily signify each individual of which it is true. A general term like 'man', for instance, primarily signifies not a general entity such as human nature, nor an absolute Platonistic idea or a Fregean sense, but only men themselves, those individuals, that is, of which it would be true to say 'this is a man'. Now, some of the categoremata—but not all—have, in addition to this primary signification, a secondary signification: they direct the mind not merely toward their primary significates, but also toward some other things. Take, for example, a relational term like 'father'. Its primary significates in the strictest sense are at any time those individuals of which it is at that time true to say 'this is a father'. But the term 'father' in virtue of its very meaning also turns the mind toward those individuals that have a father, namely, the children. Thus, 'father' has its secondary significates, or, as Ockham also says, its connotata. Whenever a categorematic sign has secondary significates, it is a connotative term. Otherwise, it is an absolute one.

An absolute term, then, treats all individuals of which it is true. 'Man'—which is, for Ockham, a paradigmatic case of absolute term—signifies men and nothing but men, and it does not signify any man differently than any other. Such terms roughly correspond to what is nowadays called 'natural-kind terms'. They are relatively rare. Since only singular substances and singular qualities (singular whitenesses for instance) are admitted in Ockham's ontology, the only absolute terms there are are those from the categories of substance (for example, 'man', 'horse', 'animal', 'tree') and quality (for example, 'whiteness', 'colour'). All other categorematic terms are connotative. This includes all relational terms such as 'father', 'owner', and so on, all concrete accidental terms such as 'white' (which, according to Ockham, primarily signifies the individual substances that are white, and secondarily signifies their singular whitenesses), all categorematic terms from the Aristotelian categories of quality, action, action in time, place, position and habitus, as well as all negative or privative expressions like 'immaterial' or 'blindness', and also such philosophically significant terms as 'true', 'good', 'intellect', 'will', and so on.

One can easily see the extreme importance of connotation theory for Ockham's nominalism. Every sign, be it linguistic or mental, must, if it is to be truly significant, refer the mind in some way to singular substances or singular qualities, and to nothing else (since nothing else exists). But it can do so through primary signification, and this duality accounts for much of the richness of language without jeopardizing ontological economy. Ockham, for example, avoids being committed to the ontological acceptance of relations by analysing relational terms as signifying nothing but individuals, some of which they primarily signify and some of which they connotate. And quantities are disposed of in a similar fashion.

Frigg's puzzle about identity, which led him to introduce intensional entities such as senses besides denotates, can also be solved in an Ockhamistic framework through connotation theory. How is it that expressions such as 'the Morning Star' and 'the Evening Star' are not synonymous even though they have the same denotation? Ockham's answer would be that while they have the same primary signifyate, they are connotative terms with different connotata. And of course, we will have a similar solution to Quint's puzzle about 'renate' and 'corporate' which are supposed to have the same extension while not being synonymous. Very simple, Ockham would say! No need here for ontological eccentricities: 'renate' and 'corporate' primarily signify the same animals, but the former connotates kidneys while the latter connotes hearts and that is precisely why they are not synonymous.

So it is not surprising to find out that Ockham himself calls upon his notion of connotation to solve a large array of theoretical problems, not only in logic but in theology and in natural philosophy as well. The particularities of theological discourse, for example, are in large part explained by connotation. How is it, Ockham asks, that we in theology different non-synonymous concepts all applicable to God (such as 'good', 'wise', 'creator', etc.) if He really is a perfectly simple being? His answer, of course, is that connotation allows in such a case for a multiplicity of concepts primarily signifying the same thing, but connoting different other beings. And in many occasions does William, for example, subject the terminology of natural philosophy and of mathematics to reductive analysis in view of showing that neither numbers, nor geometrical points or lines, nor movement, void, place or time have any reality distinct from that of singular substances and qualities. Ockham's nominalism, in short, relies heavily on connotation theory.

Now, why would anybody think that such a useful and crucial device only belongs to the superficial level of conventional languages and that it is utterly absent (at least as a property of simple terms) from the deep structures of mental language? I will, in section 3 and 4, scrutinize in some detail the arguments used by Spade and others to sustain such an exclusion. But details apart, it must at this point be said that their interpretation rests for a large part on a particular thesis which is clearly and frequently asserted by William himself: a connotative term always has a nominal definition (a definition quid nominis), while strictly speaking no absolute term does. Since absolute terms uniformly signify whatever they signify, the only sort of definition they are liable to receive is a quid rei definition, which is a description of the essential features of their significates but in no way an explicitation of their verbal meaning. Connotative terms, on the contrary, both have a primary and a secondary signification, and this internal hierarchized structure, Ockham thinks, can...
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always be rendered explicit with the help of a complex expression, which will precisely be the term's nominal definition.

Spade's idea is that if this is so, then for every connotative term, there exists what he calls a fully expanded explicitly equivalent term and in which the only occurring non-complex categorematic terms are absolute definitions. The point is that if a connotative name occurs in the nominal definition of another connotative name, it cannot be replaced in this definition by its own nominal definition; the process can be repeated until only absolute terms are left, along with syncategoremata. In other words, connotative terms, since they are definable, are all logically dispensable. Ockham himself, therefore, is not convinced that connotative mental language, all connotative terms, connotate, should be represented in mentalese by their fully expanded nominal definitions. The problem here, I am afraid, is that this conclusion runs head on against Ockham's own considered beliefs about connotative terms. This is what I will now show in section 2 by going through some relevant texts of Ockham. And I will return in section 3 to Spade's synonymy argument in order to find out what exactly is wrong with it.

2. Mental connotation

Let us first turn to Quodlibeta V, question 25, where the problem under discussion is precisely the following: is there in the mind a real distinction between absolute, connotative, and relative concepts? Ockham's answer is an unequivocal yes:

I reply that, according to philosophers, the [affirmative answer to this question] is certain. For the concept human being is absolute, the concept white is connotative, and the concept father is relative. And there are three types of concepts that overlap except as superior and inferior, since every relative concept is connotative, but not vice versa. So, there are connotative terms in mental language. Of course, Spade's thesis does not directly contradict that, since in most of its careful formulation, it is only that there are no simple connotative terms in mental language. But if this is what Ockham thought, the least that can be said is that he missed a good chance of saying so! His examples here are all simple expressions such as 'man', 'white', and 'father'. If he thought that such written expressions really corresponded to mental complexes containing absolute terms and syncategoremata, his way of speaking has here to be seen as very misleading.

Moreover, if we should both accept Ockham's explicit thesis in this passage (that there really are connotative terms in mental language) and Spade's thesis (that no connotative mental concept is simple), there would follow, as Spade clearly saw, that mental connotation are identical with their nominal definitions. And this directly contradicts something Ockham frequently repeats: 'a definition is not identical with what is defined'. His explanation of the point is precisely that the definition is a longer expression than the defined term. That this is not an accidental feature follows from something Ockham considers as a commonplace about definition, namely that it is more explicit than what is defined.

Other passages are even more direct. Speaking about the knowability of God in Book One of his commentary on the Sentences, Ockham writes that 'God can be

known by us through a simple connotative and negative concept which is proper to Him.' Such a concept, he adds, 'is simple, even though it signifies distinct things, principally or secundarily, directly, that is, or oblignity'. Concepts, as we already know, are the basic terms of mental discourse. So what is unambiguously presupposed here is that there are simple mental connotative terms and that their internal hierarchized semantical structure does not preclude them from being simple. The notion of a simple term which is involved in this passage is quite clearly, it seems to me, the same as in Spade, namely: the old Aristotelian idea of a sign to part of which is itself a sign. It is sufficient to prove it to remark that simple concepts are, along the surrounding pages, contrasted with composite concepts, which are themselves characterized as having different parts, each of which is independently 'abstractible' from things, which comes pretty much to the same as saying that each of these parts has an independent signification.

In the following question of the same book, we find another very clear assertion: 'I say', Ockham writes, 'that of the same thing there can be a plurality of different simple denominative concepts, and this is due to the diversity of their connotata.' Denominative terms are synonyms, terms such as 'white', 'just', 'courageous' which are used to attribute to individual things certain properties for which there exist corresponding abstract names such as 'whiteness', 'justice', 'courage'. As is clear from the above quotation (as well as from many other passages), denominative terms are all seen by Ockham as connotative. So once more the conclusion is unavoidable: there are simple connotative terms in the mind.

One can still resist, nevertheless and remind us that these passages from the Ordinatio were written early in Ockham's career and that he could have changed his mind on this as he did on other subjects. This is true, of course: he could have. But as far as I can see, he didn't. Let us look at Summa Logicae I. Here the evidence is admittedly a little more indirect, but still, it seems to me, overwhelming. On the one hand, Ockham announces at the beginning of chapter 3 that he is now about to introduce a number of distinctions among 'incomplex terms'; this is certainly meant to include the absolute/connotative distinction drawn in chapter 10. On the other hand, we find, at the beginning of chapter 11, the following statement: 'All divisions we have considered so far apply both to terms which naturally signify and to terms which are merely conventional signs.' This implies that the distinction of the immediately preceding chapter is among those which pertain to mental as well as to conventional language. That some mental terms are both simple and connotative neatly follows from these two considerations taken jointly.

A similar argument can also be derived from the way Ockham understands the Aristotelian division of the ten categories. This, he says, is a classification of 'incomplex terms, mental as well as verbal'. And it is well-known, on the other hand, that all terms from the categories of relation and quantity, as well as many terms from the other categories, are, according to him, connotative.

A doubt might be raised, at this point, about what exactly Ockham means by these passages from the Summa by 'incomplexum'. Couldn't it be, after all, something different than what was meant by 'simplices' in the previously quoted passages from the Ordinatio? In chapter 4 of his commentary on Aristotle's Categories, Ockham had distinguished two senses of 'incomplexum': 'In the strict sense, an incomplex is a simple word, a word, that is, to which no other word is added: such as: man, runs,
and the complete definition of 'double' has to include the correlative term "half". Whether these examples, which are from Ockham himself, are well-chosen or not, the important point here is that some relational terms (if not all) cannot be defined without recourse to other relational terms; therefore, since all relational terms are connotative, Ockham is directly committed to denying the thesis Spade attributes to him that all connotative terms are liable to fully expanded nominal definitions 'each of whose constituent non-complex categorematic terms is absolute'. The resulting circularity in nominal definitions (since, for example, 'child' must occur in the definition of 'father', and 'father' the definition of 'child') is not a problem for Ockham: if two concepts are really correlative to each other, they have to be acquired simultaneously and there is no difficulty in admitting that they mutually define each other — nominal definitions do not necessarily proceed from the better known to the lesser known. Ockham, then, just like Bertrand Russell some six centuries later, explicitly denied that relational terms are all logically constructible from absolute ones. They are not dispensable in mental language as he understands it.

So, what we have now is that Spade’s interpretation contradicts at least three of Ockham’s explicit and repeated statements:

1. Definitions are always distinct from the terms they define.
2. Some connotative concepts are simple.
3. Relative concepts cannot all be completely defined with the sole help of absolute terms and synonemata.

But this is still not enough to settle the matter. Spade’s point is that Ockham is committed to the denial of each one of these three theses. And of course, he could be without realizing it. His theory of connotation, after all, could be inconsistent! What is left for us to scrutinize, then, is the arguments which led such renowned commentators as Spade, Adams and Normore to believe that William is so committed.

3. Synonymy and nominal definitions

The crucial argument we have to discuss can be summarized in the following way:

(1) each connotative term has a nominal definition;
(2) a term which has a nominal definition is synonymous with it;
(3) there is no synonymy in mental language.

Therefore:

(4) connotative terms and their definitions cannot exist as distinct units in mental language.

Premiss (1), as we have seen in the first part of this paper, is very clear in Ockham, it is often repeated and nowhere denied. Premiss (3) is also quite explicit: ‘For there is no multitude of concepts corresponding to the multitude of synonymous [spoken] names.’ Mental language, according to Ockham, is maximally economical: if a distinction between words has no semantical relevance, then there normally is no
corresponding distinction in mentalese. What is wrong with the argument is premises (2) as we shall see, it is not the case in Ockham that a connotative term is exactly synonymous with its definition.

It is true that Ockham says in different passages that a connotative term and its nominal definition 'signify the same'. But, as Spade readily admits, it is not sufficient, in Ockham's vocabulary, that two terms signify the same individuals in order for them to be synonymous. 'Parent' and 'child' for example both signify exactly the same individuals: 'parent' primarily signifies the parents and secondarily the children, while 'child' primarily signifies the children and secondarily the parents. But, of course, these terms reason that the parents do not signify the same individuals under the same modes. Is Ockham's sense of 'synonyma', two terms are synonymous if and only if whatever is signified by one of them under a certain mode is also signified by the other: one under the same mode.

Spade clearly realizes this, but he thinks that for Ockham, a connotative term and its definition always signify exactly the same things under the same modes, although, as he acknowledges, Ockham never explicitly says so. Spade reasons as follows. A term like 'blind' is supposed, according to Summa Logicae I, chapter 33, to signify sight negatively. 'And this', Spade remarks, 'seems to be exactly so it is signified by its nominal definition, which would presumably be something like "animal not possessing sight". If this is so, 'there seems', he concludes, 'to be no reason not to generate this so that the context implies that two terms are synonymous if and only if whatever is signified by one under a certain mode is also signified by the other: one under the same mode.

Moreover, there are a number of passages which strongly suggest that Ockham consciously refused the general principle of a total synonymy between the definition and the defined terms. Have quoted above a passage where he says that definitions are more explicit than what they define, and this probably expresses his most basic intuitions about the matter. But there is much more. In Quodlibeta V, question 19, what is wholly equivalent to the distinction that he holds that verbs, adverbs and conjunctions are all liable to nominal definitions and his examples are the following: '... someone who wants to define "where" will say that it is an interrogative adverb of place; likewise, he will say that "when" is an interrogative adverb of time'. The definitions in these cases are metalinguistic while the defined terms are not, and consequently they cannot be synonymous with them. Even if they are not about connotative terms, of course, they are not about connotative terms, Ockham does not subscribe to a general principle of total synonymy between definitions and defined terms.

The most explicit passage I know of is in Book One, chapter 20, of Ockham's commentary on Aristotle's Sophistical Refutations. Here he insists that a nominal definition cannot always be substituted for its definiendum without harm. The definition of 'pug', for example, is 'concave nose', but if we substitute this definition for 'pug' in 'pug nose', we get the unacceptable result 'concave nose nose'. More generally, Ockham warns the reader against uncritically using inferences in which certain things are signified by the defined term without harm. The idea is that a name and its definition signify exactly the same thing and that the one can be substituted to the other and that whatever can be correctly added to the one can also be correctly added to the other... as if it was totally certain that such a principle was true, since in fact it is not true although it seems to be... Where exactly do the semantical differences lie between the definiendum and the definition? Ockham does not say. But maybe we can find it by ourselves. To do that, we first have to take a look at which modes of signification there are according to Ockham. Many passages suggest a basic distinction between grammatical and logical modes. The grammatical modes of signification of an expression are wholly determined by its grammatical features: number, case, gender, and so on. The logical modes - which are certainly more relevant for synonymy - must be those which are listed in Summa Logicae. In recto, chapter 10. According to this passage, a term can signify:

- in recto or in oblique (that is: primarily or secondarily);
- affirmatively or negatively;
- categorically or syncategorically;
- as a proper name or as a common name.

It is to be noted that these logical distinctions are independent of the grammatical features of the term under consideration: 'father', for example, signifies the children obliquely even when it is not taken in one of the oblique cases (genitive, dative, ablative and accusative), and 'blind' signifies sight negatively even if its external grammatical form does not display any negation.

This being clarified, we can readily notice that there are in fact some obvious differences between the logical modes of signification of a connotative term taken alone and those which are found in its nominal definition. First, there are cases where the definition itself includes a connotative term. We have seen that relational terms are not ultimately dispensable. A term like 'father' is defined as 'male animal having a child'. In such a definition, the term 'child' is itself connotative. What does it secondarily signify? The parents, of course. So the fathers are connoted (or secondarily signified) in the definition of 'father', but they are certainly not connoted by the term 'father' itself, of which they are the primary significates.

Attention has been drawn to another sort of case by John Bolter in a very interesting paper about Connotative terms in Ockham. Let us consider the definition of 'father' again. It includes the expression 'animal' which occurs there in the nominative case and which, of course, signifies in recto all animals. Should we say that 'father' itself signifies in recto all animals? Certainly not, because that would amount to saying that it primarily signifies all animals, which it does not, since it is not true of each animal that it is a father.

We have found so far two major differences between the modes under which certain things are signified in a nominal definition and the modes under which the defined term signifies them (if it does signify them at all): some things are connotated by certain parts of the definition which are not connoted by the defined term; and some things are signified in recto by certain parts of the definition which are not signified in recto by the defined term.

Haven't we gone astray, however, in taking into consideration the modes under which certain things are signified by the parts of the definition rather than the modes
under which they are signified by the definition itself taken as a whole? After all, Spade’s thesis is that a connotative term is synonymous with its nominal definition as a whole. But the trouble with the idea of considering the global signification of the definition is that we do not find in Ockham any clear indication about how the signification of such complexes as definitions should be constructed out of the significations of their constituent parts. Spade proposes with regard to this a principle which he calls the Additive Principle: ‘A complex expression signifies just exactly the sum total of what is signified by its constituent non-complex categorematic terms.’

The least that can be said is that such a principle—which, as Spade remarks, can be found in Buridan—is to be found himself, where, at one point, he makes a distinction between ‘signifying the same’ and ‘signifying exactly the same’. But a close look at the texts reveals that he has a tendency to make a distinction between ‘signifying the same’ and ‘signifying exactly the same’. A good example of this is found in the Quaestiones Variae, where, at one point, he writes that ‘man’ and ‘animal’ do signify the same, although not exactly, since ‘animal’ signifies whatever ‘man’ signifies, and more ... And remember that in his commentary on the Sophistical Refutations, he clearly warns the reader against taking as true the principle that a name and its definition signify exactly (‘omnino’ in this case) the same thing. So it might very well be that what he means when he says that the definition and the definiendum signify the same (without the qualification: exactly) is only that whatever is signified by the definiendum is also signified under some mode in the definition (while the converse might not necessarily hold).

On the other hand, we do have some clear hints in Ockham about certain rules which could lead from what is going on in the nominal definitions to conclusions about the modes of signification of the defined connotative terms. The following two rules, for example, are plausible candidates:

1. A connotative term T negatively signifies object O if and only if O is one of the primary significates of a term T which occurs within the scope of a negation in the nominal definition of T.

2. A connotative term T signifies obliquely an object: O of O is one of the primary significates of a term T which occurs in one of the oblique cases in the nominal definition of T.

Such rules account for the facts that a term like ‘blind’ is said to signify sight negatively (its definition being something like ‘animal not having sight’) or that a term like ‘father’ is said to signify the children obliquely (its definition being something like ‘animal having a child’, where ‘child’ is in the accusative case). And other such rules could be constructed (in order, especially, to yield the primary signification of the defined connotative terms). But even taken jointly, they do not (and should not) imply the complete synonymy between the definitions and the definiendum. We have seen, on the contrary, that certain semantic features of parts of the definition have no equivalent in the defined term. It might even be admitted that in some cases, certain things are signified by some parts of a definition which are not, under any mode, signified by the definiendum.

Nowhere, for example, does Ockham say that ‘father’ signifies in any way all the animals there are, although the general term ‘animal’ occurs in its definition. Of course, he sometimes asserts, as we saw, that a definition and its definiendum ‘signify the same’. But a close look at the texts reveals that he has a tendency to make a distinction between ‘signifying the same’ and ‘signifying exactly the same’. The argument, then, would run as follows:

1. Any simple proposition in which there occurs a connotative term has at least two exponentes.
2. In the final analysis, the exponentes should not themselves include any connotative term.
3. The conjunction of the exponentes is synonymous with the exponible proposition.
4. There is no synonymy in mental language; therefore:
5. An exponible proposition and the conjunction of its exponentes cannot both exist as distinct units in mental language.
What has to be rejected here is premis (6) and premis (7). Premis (6) has sometimes been asserted by very good commentators, but our previous discussion now shows it to be unacceptable to Ockham. At least one of the exponentes in his theory is built out of the original definition of the 'white', for example, is defined as 'something in which there inheres a whiteness', and that is why the proposition 'in (this) thing there inheres a whiteness' has to be counted among the exponentes even if it is running. But we now know that in certain cases, connotative terms cannot be eliminated from complete nominal definitions. There is no reason, therefore, to think that they can be eliminated from the exponentes.

If that is true, then premis (7) also has to fail. As we have seen, some things are sometimes signified in a definition which are not signified under the same modes by the definiendum. If such a definition (or something very close to it) occurs in the exponentes, then some things will be signified in the exponentes which are not signified under the same modes in the original exponible proposition and hence they will not be synonymous.

It is interesting to notice that this point has been explicitly discussed by some of Ockham's successors from the end of the fourteenth century (Peter of Ailly, for example) up to the sixteenth. The question was raised as to whether the exponible propositions were really distinct in mental language from the conjunctions of their exponentes. And the usual answer, as we learn from Jennifer Ashworth's study of this discussion, was an unequivocal 'yes'.59 Many arguments were put forward in favour of this conclusion, for example, that in some cases people clearly understand an exponible proposition without knowing what its exponentes are.59 In particular, an illuminating distinction was drawn, which, I think, was already implicit in Ockham, 'between two kinds of equivalence, equivalence in significando and equivalence in inferendo, or in truth and falsity'.60 It is certainly true that Ockham views the conjunction of the exponentes as equivalent to the original exponible proposition. But he says so only in relation with truth-conditions. Since, as we have seen, the synonymy in such cases cannot always be total, a distinction is strongly maintained, i.e. here between synonymy (equivalence in significando, according to the later terminology) and equivalence in truth-conditions.

In short, the argument from exponentes and exponentes fails for the very same reason as the Spade-A dams-Normore argument: connotative terms cannot always be seen as strictly synonymous with their nominal definitions. The principle according to which there is no synonymy in mental language simply does not apply in such cases, otherwise the conclusion of section 2, then, has to be confidently maintained: there are simple connotative terms in Ockham's mental language. His nominalistic theory of connotation, so crucial for his whole system, is not redundant. There is an important work to which there is no synonymy in mentalese simply does not apply in such cases, otherwise the conclusion of section 2, then, has to be confidently maintained: there are simple connotative terms in Ockham's mental language. His nominalistic theory of connotation, so crucial for his whole system, is not redundant. There is an important work to which there is no synonymy in mentalese simply does not apply. That is, the difference between 'between two kinds of equivalence, equivalence in significando and equivalence in inferendo, or in truth and falsity' is certainly true that Ockham views the conjunction of the exponentes as equivalent to the original exponible proposition. But he says so only in relation with truth-conditions. Since, as we have seen, the synonymy in such cases cannot always be total, a distinction is strongly maintained, i.e. here between synonymy (equivalence in significando, according to the later terminology) and equivalence in truth-conditions.

To all of these, Gaskin replies in basically the same way. He agrees that Ockham expresses himself in these passages 'as if there were simple connotative terms'.61 But it can all be seen, he contends, as mere fa çons de parler. In none of these cases, according to Gaskin, is the question of whether there are or not simple connotative concepts really central to Ockham's ongoing purpose in the context. Ockham, therefore, might be using convenient 'shorthands' there, having no need, in these precise contexts, for nuances and complications about the simplicity or complexity of concepts.

This strategy calls for several remarks. For one thing, the implication that there are indeed simple connotative concepts in the mind is not that immaterial in all the passages involved. When Ockham neatly asserts in Summa Logicae I, 41 that 'the terms subsumed under the categories are simple terms' and that 'this holds for simple terms of both the mental and the vocal sort',62 he is well aware that he is thus taking a stand on one of the most controversial issues in the history of philosophy, a fact, moreover, that crucially matters for his own thought: what are the ten Aristotelian categories, categories of? The quoted sentences from Summa Logicae I, 41 provide nothing less than Ockham's considered answer to this age-old riddle; it is difficult to think that he doesn't express himself with great care in this context. The very way in
which he chose to formulate his general position about the status of the ten categories strongly suggests that there are simple mental concepts from all ten categories within the human mind. This suggestion, therefore, should be taken seriously, interpretively speaking, since the mental level belong to the categories of substance and quality - as Gaskin wants him to - he would normally have seized the occasion of this general discussion 'on the distinction of the Categories' to say so.

Secondly, in some cases, Gaskin's eagerness to make the quoted passages compatible with Ockham's supposed rejection of simple connotative concepts leads to devices which are quite implausible, such as the (dictactively non-Ockhamistic) postulation of an 'infinitely expanded nominal definition' in the discussion of argument 2, and a convoluted reading of the first sentence of Summa Logicae I, 11 in the discussion of argument 3.

Thirdly (and the most important aspect), Gaskin's strategy on the issue makes sense only if there is strong counter-evidence available to neutralize the prima facie literal reading of the quoted passages. This, indeed, is the very basis of Gaskin's hermeneutical method as he precisely explains it itself:

"The general principle here ... is that if, in a given passage, Ockham writes as though there were simple connotative terms at the mental level, but if that simplicity plays no role in the argumentation of the passage - if his purpose would have been equally well served had Ockham substituted the nominal definitions of the simple terms for those terms themselves - then, given that there is pressure on Ockham from elsewhere in his philosophy to deny the existence of simple connotative terms at the mental level, we cannot be sure that in writing as though there were simple mental connotative terms Ockham does not intend that as mere shorthand which could and would be eliminated were we to insist on strict accuracy."

Gaskin's reinterpretations of the passages referred to in arguments (1)-(4) overtly depend for their plausibility on the assumption 'that there is pressure on Ockham from elsewhere in his philosophy to deny the existence of simple connotative terms at the mental level'.

But what pressure? That's the question. Gaskin's answer is that the rejection of simple connotative concepts neatly follows from Ockham's rejection of synonymy within mental language along with the assumption that a nominal definition is always synonymous with the defined term. Which, as the reader will recall, was exactly Spade's original argument. My point against it was that the synonymy of the definition with the defined term is not to be admitted in Ockham's theory, and that he did in fact explicitly reject it. Gaskin, obviously, is not convinced by this refutation, which he discusses independently in a long footnote of the same paper. A lot is now seen to depend on which of us is right about this: whether or not nominal definitions and the defined terms were thought of as synonymous by Ockham turns out to be crucial to both connotative concepts.

For my part, I must say, I still take the textual dossier I provided above on the matter to be decisive. Gaskin's dismissal of its impact is based partly on points made by Paul Vincent Spade and Cyrille Michon, to which I have, I think, sufficiently replied, and partly on an original suggestion of his own for constructing complex significations out of simple ones, which is not found in Ockham's...

13. See Spade 1975, p. 68: ‘... all connotative mental terms, if indeed there are any, are compounds terms and all the terms that are Spade’s; see also note 41 on the same page: [connotative mental terms] would be...’ with their nominal definitions only in the degenerate sense of being identical with them.

14. Quod. III, 15, OTh IX, p. 541: ‘... definitione extra se non est realiter cum se extra se: car in omo ab extra. Frewell 1982: 453). As Cyril Michon has rightly remarked (1994, pp. 374-5), this particular sentence occurs in the context of a discussion about real - rather than nominal- definitions. The point it makes, however, is certainly meant to hold for both. Ockham repeats it almost immediately in SL III, 22, (see OTh II, p. 680: ‘definitione non est ident idem realiter cum definitione’), a passage which, contrary to what Michon claims (1994, p. 375, n. 1), explicitly pertains to ‘all definitions’, the distinction between real and nominal definitions being introduced in the following note only. In SL II, 26, Ockham insists that a nominal definition - just like a real one - is always a complex phrase (‘oratio’) explicating a single term (see OTh II, p. 88: ‘Definitionis exprimere quantitatem nominiest’. More on this in chapter 6.

15. See Summ. Phil. Nat. I, OTh VI, p. 162: ‘communiter dicitur quod definitio significat id quod definitum significat in conceptu albo. Ockham, however, makes it clear that Ockham is speaking here of nominal definitions. In Panacchio 1990, I had also quoted a passage from SL II, 14, OTh II, p. 530: ‘definitione explicat minus res quam definitum’, but, as was remarked by Spade 1996, p. 232, this passage has to do with real rather than nominal definitions, while our present discussion is about nominal definitions only.

16. OTh I, dist. 3, q. 2, OTh II, p. 405: ‘... dico quod Deus potest cogitarii nobis in concepto simplici connotativo et negativo sibi propio... et tale conceptum est simplex quoniam per distinctam significationem esse vel vel in ree et unitatem...’

17. See, for instance, OTh III, 10, OTh II, pp. 402-3: ‘... dico quod essentia divina vel quidditas divina potest cogitarii nobis in alquique concepto sibi propio, composito tamen, et hoc in conceptu simplici naturaliter a rebus...’ Ockham is even more explicit about his notion of a nominal definition in SL III, 10: p. 374: ‘... Positis divisionibus quae possunt competere tam terminis ad placitum institutis...’

18. See, for instance, OTh I, dist. 3, q. 2, OTh II, p. 402-3: ‘... dico quod essentia divina vel quidditas divina potest cognoscipi nobis in alquique concepto sibi propio, composito tamen, et hoc in conceptu simplici naturaliter a rebus...’

19. Ockham is explicit about this distinction between these two usual senses of ‘oratio’; see Exp. in Porph. I, OTh II, p. 350; ‘... oratio explicat utramque’ (see also note 11 above). Ockham is explicit about this distinction between these two usual senses of ‘oratio’; see Exp. in Porph. I, OTh II, p. 402-3. 

20. See Aristotel, Cat. I, 1:15-13; and SL I, 13, p. 47.

21. SL I, OTh I, p. 11: ‘... praesupendum est de divisionibus terminorum incompositorum’.


24. See SL I, 10, OTh I, pp. 37-8: ‘Inmo, qui ponunt quod quaelibet res est substantia vel qualitas, habent ponere quod omnia contenta in alia praedicabilia sunt substantia et

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qualitatem nominis connotativa (italicis are mine). It should be noted that Ockham is using ‘nominum’ here in a wide sense since he acknowledges elsewhere that the categories of action and passion contain only verbs, and no nouns in the strict sense (SL I, 10, OTh I, pp. 183-4 and p. 187), and that the categories of time and place contain only adverbs (SL I, 9-10, OTh I, pp. 188-91). Martin Tweedale has surmised that the Ockhamistic distinction between absolute and connotative terms might not pertain to verbs, adverbs and prepositional phrases at all (Tweedale 1992, pp. 438-41). However, the wide use of ‘nominum’ that Ockham frequently allows himself after all, verbs, according to Aristotle, ‘are really names and have a determinate meaning’ (Perihermenes II, 3, 1689a-20), and this must apply to adverbs as well, and to prepositional phrases such as ‘in a house’, ‘rapidly’, etc. Ockham is entirely explicit that this particular sentence occurs in the context of a discussion about real - rather than nominal- definitions. While our present discussion is about nominal definitions, while our present discussion is about nominal definitions only. 

25. Ibid.: ‘Secundo modo dicitur incomplexum terminus propositionis sive sit una dictio vel quoddam termum quod est definitum non potest definiri sine suo correlativo; ut definiatur sic “pater est substantia et
correlativa sint simul in intellectu ... ('italics are mine). The matter is discussed in some
details in Quodl. VI, p. 24, pp. 673-8. See also Exp. sup. Elench. II, 16, OPA III, p. 296,
and Orb. I, 5, OTh IX, pp. 554-5.


40. Quodl. V, 4, OPA IX, p. 556: ... sine definitione quis nominis est quedam, 
advertisement, conexiorem, quia quid vult define "ibi" dicit quod est advertisement
interrogativom locum; similitur dicit quod "quando" est advertisement interrogativum tempore, et sic de aliis, ut praedisceret definitio de definito supponente materialiter.

41. Spade 1990, p. 233, this rejects this argument of mine by remarking that if the definition is 
metalinguistic in such cases, so are the defined terms themselves since they are taken as
material supposition, which he, contentes, re-establishes semantical equivalence between 
the two. But this is off the mark. The question is whether the definition and the defined 
terms are synonymous, and synonymy is a matter of significance, not of supposition.
Surely the metalinguistic phrase 'as interrogative adjective of place' (italics is Ockham's sake) certain things that the adjective 'when' does not signify even when taken in 
material supposition (for taking a term in material supposition does not change its
signification), namely adverbs. Hence they are not synonymous.

Ockham's thesis is that the meaning of a relational term cannot be
completely given without the help of its correlate. Contrary to what Tweedale thinks, then, the elimination 
of all relational terms is ultimately impossible without semantical impoverishment.

32. Quodl. IV, 9, OPA IX, p. 518: ... quis multidini nominum synonymorum non 
correspondit multitudo conceptuum' (trans!. Freddoso 1991, p. 432). See also Quodl. V, 8, OTh IX, pp. 510–13, and SL I, 3, OPH I, pp. 11-12. More on this below in chap. 7,
sect. 4.2.

33. See for example SL III, 3, 22, OPH I, p. 660: 'Tamen non obstante quod definitio et
idem nominem exprimatur et sit vera 'essentia'.' See also Exp. in Phys. III, 6, OphX, v. 480: ... quidquid importatur per unum correlativum, importatur per reliquam, 
tamen non semper modo, quia illud qui importatur per unum inrecto, importatur per 
reliquum in oblique et conversio ... sic quidquid importatur per hoc nomine "pater" importatur per unum synonymum idem, et tamen hanc est falsa "filius est pater". See also Exp. in Phys. III, 6, OphX, v. 480: ... quidquid importatur per unum correlativum, importatur per reliquam, 
tamen non semper modo, quia illud qui importatur per unum inrecto, importatur per 

34. See SL I, 6, OPA I, p. 19: ... dicunt illa synonyma quae simpliciter idem significatur 
onnullius modis, idem quod nihil aliquo modo significatur et quod locum unionis possit alterum ponit et quod quidquid conveniret additur unum possit convenire
alius alierni ... quia omne suis cum certum quod praedicto propositio sit verum, cum tamen 
sit vera quidquid videatur esse vera ... (italics are mine). Michon 1994, p. 369, claims
that this remark occurs 'in the context of a study of real definitions', but the text is
explicitly intended to cover nominal as well as real definitions (see Exp. sup. Elench. I, 20, p. 139). The redundancy or "naglio" - problem (as in 'concave nose nose') typically 
tar, Ockham says, with nominal definitions (ibid., p. 130 ‘sed etiam [causa
deceptio] labet locum in alius nominibus in quorum definitiones expressibim quid nominis necessario poneat subiectum'). Since the rejection of the total synonymy 
between the definition and the defined term is meant to solve the naglio problem
precisely, it better applies to nominal definitions! See also Exp. sup. Elench. I, 20, p. 132-3.

42. See, among many other examples, Quodl. II, q. 7, OTh IX, pp. 143-4 about the
synonymy between 'causa' taken as a name and 'essentia': 'Tamen "esse" aliqua quidem
nomen, et tunc significati omni modo grammaticali et logicali idem causam esse" 
(italics are mine). See also, for example, Orb. I, dist. 1, qu. 2, OTH IX, p. 285-6: Verbi grata, isti voco "homone" 
competit talis modo grammaticali quod singularis nominative, nominativi causae, 
masculini generis, et sic de aliis' (italics are mine). Also Quodl. II, q. 7, OTh IX, p. 144: 'Aliquando ["esse"] est verbum, et tunc significat idem verbum quot "esse" 
significat nominativum.'
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47. SL III–4, 10, OPh I, p. 817: '... nece`sa est cognoscere quas res termini significat et qualiter significat eam, scilicet an in recto vel in obliquo, et as affinative vel negative, et an tamquam categoriematic vel syncategoriciet, et an tamquam nominum propriu vel communia ...'


49. Spade 1975, p. 58.

50. Ibid., n. 11. On Buridan's Additive Principle, see also King 1585, p. 13.

51. Michion 1994, pp. 567–8 and Gaskin 2001, p. 239n. Both suggest that the signification of a complex expression - such as a definition - should not be seen within Ockham's framework as the sum of the significations of its components (as required by the 'Additive Principle'), but that some sort of special semantical restriction should be supposed to operate in such cases to exclude from the significates of the complex expression as a whole some of the significations of its components. I can see, however, no textual support in Ockham for such a strategy. Since it is inconsistent with some of the things he explicitly holds (as in the passage quoted above in n. 46), it should not, as a matter of principle, be attributed to him. Moreover, it is difficult to see, in the case of mental expressions, how the natural signification of their constituent simple concepts could be cancelled by the surrounding terms. If, for example, the concept 'animal' naturally calls to mind every animal there is, why should it cease to do so when it is followed by the concept 'having a child'? This, actually, is the very reason why Spade, contrary to Gaskin, thinks that Ockham is committed to the Additive Principle. He does not acknowledge, however, that this principle is incompatible, in many cases, with the theonomy of the definition with the defined term.

52. This formulation is directly inspired by one of Spade 1975, p. 67. But his is meant to yield the mode of signification of the definition as a whole rather than that of the defined term, which he only afterwards infers from that of the definition. I don't see any reason for this detour, unless we presuppose that the defined term and its definition are wholly synonymous, which, as we saw, we should not do if we care to avoid attributing a fatal inconsistency to Ockham.

53. I say "if" in this case, rather than "if and only if", because I want to leave open, at this stage, the question of the necessary conditions for oblique signification. R1 and R2 are merely given here as examples of rules, and not, of course, as a complete theory.


55. Ibid., p. 141.

56. Ibid.

57. Ibid., p. 256–61.

58. Ibid., p. 240.

59. Ibid., p. 261. This is Gaskin's reply to what he counts as my sixth argument: Ockham never explicitly rejected simple connotative concepts.

60. The text is quoted in n. 12 above.

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61. See above n. 14.

62. See above nn. 20–21.

63. See above nn. 22–3.

64. The text is quoted in n. 12 above.

65. See above n. 14.

66. See above nn. 20–21.

67. See above nn. 22–3.

68. Gaskin 2001, p. 257, ad 1 (italics are mine). See also ibid., p. 260, ad 4: 'In many passages Ockham writes as if there were simple mental terms ... ' (with Gaskin's own italics this time).

69. SL I, 41, OPh I, p. 116: ' ... illa quae sunt in praedicamentis sunt incomplexa ... Et hoc communia ...'
Chapter 5

The Role of Nominal Definitions

Many, as we have seen, have counted Ockham as a resolute supporter of what we call today the ‘Definitional View’ of concepts, also labelled sometimes as the ‘Classical Theory’. According to this doctrine, most of our mental concepts are actually definitions. They are, in other words, complex mental representations encoding, on the basis of some primitive terms, necessary and sufficient conditions for their own application. In Paul Spade’s original interpretation of Ockham, the primitive basis was supposed to be provided by a limited range of simple absolute concepts, acquired by the agent as a consequence of direct encounters with individual exemplifications; all the connotative ones, by contrast – the bulk of our intellectual equipment, certainly – were identified with their nominal definitions. The discussion of the previous chapter now allows us to renounce this picture of Ockham’s theory of thought, but its demise, admittedly, leaves us with a pressing puzzle: given that all – and only – connotative terms have a nominal definition, according to Ockham, what is the connection exactly, in his epistemology, between simple connotative concepts and their nominal definitions?

Paul Spade himself has forcefully raised the point. If connotative names are not synonymous with their nominal definitions, he asks, then what would the criterion be of a ‘correct’ nominal definition for a given concept? In other words, ‘if it’s not synonymy, then what is it?’ In a 1998 paper in *Franciscan Studies*, Spade is even more explicit, insisting that his main reason for attributing to Ockham a reductionist programme with respect to connotative terms, had been that such a programme fits so well with Ockham’s theory of nominal definition: ‘if he did not accept the moderate reductionist programme I have described’, Spade asks again, ‘then what is the point of the theory of nominal definition?’

This is an entirely relevant question and I would like to address it in this chapter. It has to do, let me insist, not with definitions in general, but only with nominal definitions (definitiones exprimentes quid nominis), which Ockham sharply distinguishes from real – or essential – definitions (definitiones exprimentes quid reris). Real definitions, in the strict sense, are descriptions of the intrinsic essences of things. A man, for example, can be ‘really’ – or essentially – described as a rational animal. Nominal definitions, on the other hand, primarily say something about names (whether spoken, written or mental). What it is exactly that nominal definitions say about names, and what role they play in Ockham’s general nominalistic programme is what we will now be concerned with.

The strategy will be the following. I will first recall four characteristic – and non-trivial – theses of Ockham about nominal definitions (section 1). I will then explain what I take the function of these definitions to be and show how the four theses fit with this conception (section 2). A number of interesting consequences will finally be drawn about Ockham’s epistemology and metaphysics (section 3).
The Role of Nominal Definitions

1. Four theses about nominal definitions

The theses I have in mind form at first sight a disparate collection. Yet they are very precise and they are clearly and repeatedly expressed as a set. Any understanding of what his theory of nominal definition is about should certainly take them into account.

- Thesis 1: Some nominal definitions irreducibly contain connotative terms.
  Correlative terms, Ockham often repeats, interdefine each other. These correspond, in his vocabulary, to such pairs as ‘father’ and ‘child’, ‘double’ and ‘half’, ‘larger’ and ‘smaller’, and so on. They are, in other words, pairs of non-synonymous converse relational terms such that if one of them is true of two individuals in a given order, the other is true of the same individuals in the reverse order (for example, if x is larger than y, y is smaller than x, and vice versa). Since correlative terms are relational, they are ipso facto connotative. Saying that these terms interdefine each other, therefore, amounts to hold that the nominal definition of certain terms irreducibly contain at least one other relational connotative term. Nominal definitions in such cases cannot be expected to eliminate all connotative terms.

- Thesis 2: A nominal definition is not always synonymous with the defined term.
  That Ockham subscribes to this thesis is also something I take to have been established in the previous chapter. Since, however, the point has been in dispute in the recent literature, it will be useful to quickly review what the main arguments are for this ascription:
  (i) Ockham says himself that the principle of a total synonymy between a nominal definition and the defined term is not true.1
  (ii) He nowhere asserts that such synonymies generally hold;9
  (iii) Crediting him with the total synonymy principle between nominal definitions and defined terms introduces a prima facie tension in his account of mental language, since he is committed to accepting on the one hand, the possible coexistence in the mind of simple connotative concepts and their complex nominal definitions,10 while he rejects, on the other hand, total synonymy from the mental language.11
  (iv) In the case of verbs, adverbs and conjunctions, Ockham clearly admits of nominal definitions which he could not have taken as synonymous with the defined terms;12 this shows at least that he does not accept synonymy as a general constraint on nominal definitions.
  (v) Ockham holds that nominal definitions signify more explicitly than the defined terms;13 this suggests that they signify differently, and hence that they are not synonymous with them in the strong sense.
  (vi) Some things are usually signified in certain ways by parts of the nominal definition, which are not signified in the same way by the defined terms.14

Taken jointly, these considerations are decisive, it seems to me, for attributing thesis 2 to Ockham. The possibility is not entirely excluded that some nominal definitions might, in particular cases, be taken as synonymous with what they are used to define, but such situations cannot be but exceptional.

- Thesis 3: Each connotative term has only one nominal definition. Ockham explicitly says so: 'properly speaking, a name that has a nominal definition has only one such definition.'20 There can be variants, to be more precise, but Ockham's point is that they cannot differ from each other more than by the substitution of a synonym for a synonym.16 Nominal definitions for Ockham are always complex phrases. If this is so, it can routinely happen in some spoken or written languages that at least one of the terms occurring within the correct nominal definition of a certain term T has a synonym in the same language. The phrase which differs at most from the nominal definition of T by the substitution of this synonym then, will clearly be a correct definition of T as well. The discrepancy, however, is not allowed to go further. Any two correct nominal definitions for a given term must be isomorphical to each other and such that their corresponding simple components are all strictly synonymous with each other. Since there is supposedly no such synonymy in mental language, there cannot be for any connotative term more than one appropriate nominal definition of that term within the mental language of a given agent. Ockham, on the other hand, also holds that all connotative terms independently of whether they are spoken, written or mental - do have a nominal definition.17 It follows from both considerations taken together that any connotative term has exactly one correct definition in the language of thought.

- Thesis 4: The nominal definition of a connotative term is a complex phrase one component of which normally is a term 'in recto' and at least one other component a term 'in obliquo'. See, among others, this passage from Summa Logicae III–3: 'Connotative terms are defined by their subjects taken in recto and by the names of their connotata.' This is crucial for any understanding of what a correct nominal definition is, according to Ockham, and we must, accordingly, pause a bit to see what it means exactly. The terminology 'in recto'/'in obliquo' also standardly occurs in Ockham to characterize the semantical duality of connotative terms in general. Connotative names, he would say, 'signify something in recto and something else in obliquo.' Yet his use of the same phrases in the theory of definitions, although not unrelated, is markedly different. It is relevant for our present purpose to grasp both how these two uses are related and how they differ.

When Ockham says that a connotative term signifies something in recto and something in obliquo, he is talking about the modes of signification of that term. To signify in recto is the same, in this vocabulary, as to signify primarily, and to signify in obliquo is the same as to signify secondarily. 'White', for example, is said to signify in recto — or primarily — all the white things, and in obliquo — or secondarily — all their whitenesses; 'father' is said to signify in recto — or primarily — all the fathers, and in obliquo — or secondarily — all their children. The distinction, here, is purely semantical; it has to do with two permanent semantical features of every
connotative term. By contrast, when Ockham uses the couple ‘in recto’/‘in obliquo’ in the description of nominal definitions, he is speaking of grammatical features. A term is said to be taken (sumpnum) in recto, according to this use, when it is in the nominative case, and in obliquo when it is in the genitive, the dative, or the accusative. Thus, indeed, was the standard terminology of grammar at the time. It primarily pertains to languages with declensions like Latin or Greek. Yet, what Ockham uses it to say about nominal definitions exceeds the limits of such languages. A term taken *a obliquo* in a certain context simply is a term which plays in this context the grammatical role of a complement, while a term taken in the nominative case, *in recto*, is not, in the relevant context, playing the role of a complement. In the end, it all amounts to this: a nominal definition, according to Ockham, is a grammatically structured phrase that normally contains a word, not in, in this very view, to say not as ‘a running creature’ (which contains no term taken *in obliquo*), but as something like ‘a creature having (or making) a run’, where the verb ‘having’ (or ‘making’) is a syncategorematic copula, and where the grammatical complement ‘a run’ designates, exactly like in the previous cases, the connotata of the defined term, namely the acts of running, considered here as real qualities.

2. What defining amounts to: a reconstruction

To this cluster of theses must be added, of course, the two more familiar ones which formed the basis for Spade’s reductionist reading of Ockham:

(5) Every connotative term has a nominal definition.

(6) No absolute term does.

These six tenets are the pieces of the puzzle that any sound reconstruction of Ockham’s theory of nominal definition should assemble. The reductionist interpretation, by contrast, is incompatible with (1), (2) and (3) taken separately, and it provides no account for Thesis (4). The reason for this inadequacy is that the interpretation in question simply projects on Ockham’s idea of a nominal definition the Frege-Russell conception of what an ‘explicit definition’ should be. An explicit definition for a certain term T, according to this modern tradition, is a phrase which is wholly synonymous with T and substitutable for it in all contexts (except those, of course, where T is mentioned rather than used). Thus, when a given expression is ‘explicitly’ defined with the help of some other terms, it appears as a mere abbreviation for its own definition and becomes eliminable from the language in which it is so defined, without any semantical loss. This, however, was not how Ockham conceived of nominal definitions in general.

The key to what he expected from such definitions is given in a cameo formulation by the following sentence from the chapter ‘On definition’ of the Summa Logicae: ‘A nominal definition is a complex phrase (oratio) explicitly indicating what is imported (importans) by a certain single term (per unam dictionem).’ This is what we now must explicite. A significant feature of this characterization is that it contrasts the nominal
definition as a complex phrase with the defined term, which is normally taken to be a simple expression.\(^{34}\) The nominal definition of a connotative name, in Ockham's system, is expected to unfold the meaning of the defined term. Now, the complete meaning of a connotative name is not just a matter of a certain mode, and some under another mode. What the nominal definition should do, then, in order to unfold such a meaning, is to explicitly and separately identify the primary significates of the defined term, and to indicate the ontological import of an expression: a term is said to 'import' whatever objects of the world it signifies in whatever way.\(^{35}\) The primary goal of a nominal definition, for Ockham, is to make explicit the ontological commitment which is to be associated with the normal use of a given term.

That is the whole secret: it is a matter of ontology. Which is why nominal definitions are so important within the framework of Ockham's nominalism. Their function is to make it perspicuous that the things that are referred to in one way or another by a meaningful connotative term are but singular things, and more precisely, singular substances and singular qualities. The role of nominal definitions is not to eliminate connotative terms, but to show, on the contrary, that they are ontologically innocent, even when they are ineliminable. Nothing in Ockham's nominalistic ontology prevents us from having simple connotative concepts in our basic mental apparatus. What the nominal definitions should do, precisely, is that such simple connotative concepts require no unacceptable copiostimulation of the ontology.

How is that to be done? We can, I submit, extract from Ockham's own practice and explanations with respect to the nominal definitions of connotative names, a relatively precise set of conditions he wanted such definitions standardly to satisfy. The following three can be proposed as a fair approximation.

(C1) The nominal definition should contain—usually as its first component—a term which is not in a grammatically subordinate position within this definition. This is the term in recto of Thesis (4) above. It should be among the primary significates of the defined term. Its extension, in other words, should include the extension of the defined term. Consider our familiar examples of nominal definitions again. In 'animal having a child', the term 'animal' occurs in obliquo; in the above quotation (which, in this case, is itself a connotative term), has as its own primary significates exactly those individuals which are to be, according to Ockham, the connotata of the defined term, namely the children. Or take 'father'. Its nominal definition is supposed to be 'animal having a child', where it is observed again that the term occurring in obliquo, 'child' namely from Summa Logicae I, 26. 'Importare' is the general verb Ockham standardly uses to indicate the ontological import of an expression: a term is said to 'import' whatever objects of the world it signifies in whatever way.\(^{36}\) The primary goal of a nominal definition, for Ockham, is to make explicit the ontological commitment which is to be associated with the normal use of a given term.

(C2) For each group of connotata of the defined term, there should occur within the definition one and only one grammatically subordinate categorietic term—normally a term in obliquo in the medieval vocabulary—having as its own primary significates exactly these connotata of the defined term. Take 'white'. It has a single group of connotata, according to Ockham, namely all the whitenesses there are, and its definition is said to be 'a body (or something) having a whiteness'. It can be seen that the term 'whiteness', which occurs as the sole grammatical complement in this definition, has as its own primary significates exactly the individuals which happen to be, according to Ockham, the connotata of the defined term, namely the whitenesses. Or take 'father'. Its nominal definition is supposed to be 'animal having a child', where it is observed again that the term occurring in obliquo, 'child' namely from Summa Logicae I, 26. 'Importare' is the general verb Ockham standardly uses to indicate the ontological import of an expression: a term is said to 'import' whatever objects of the world it signifies in whatever way.\(^{36}\) The primary goal of a nominal definition, for Ockham, is to make explicit the ontological commitment which is to be associated with the normal use of a given term.

What is required from it in this circumstance is that its logic be adequate to express how singular bodies could stand with respect to whitenesses if they are to be among the primary significates of the defined term 'white'. It makes little doubt that Ockham's conception of such syncategorematic copulas remains largely undeveloped,\(^{37}\) but it would certainly be relevant for the correctness of a definition with 'having' as a copula that 'having' is asymmetrical in a way that 'being' is not. Since syncategorematic terms, according to Ockham, do not signify special determinate things of the world, their contribution to the definition can only rest upon such logical and grammatical properties.

What we end up with, in short, is this: the correct nominal definition of a connotative name should precisely delineate (through the terms) in obliquo the connotata of the defined term, while revealing the modes under which they are connoted; it should provide, moreover, through the syncategoremata and the grammatical structure, a kind of algorithm for picking out the primary significates of the defined term among the primary significates of the term in recto.\(^{38}\) Whatever this does that job for a given term T will be a good nominal definition of T.

This reconstruction fits well with the passages where Ockham is explicit about the role of the nominal definitions of connotative names,\(^{39}\) and with most of his actual examples.\(^{40}\) It accounts, in particular, for the otherwise surprising Theses (1)-(4) above, which we can now return to (in the reverse order).
First, it is easily seen in the light of Cl-C3 why a nominal definition should normally contain a term in recto and at least one grammatically subordinate categorial term, as stated in Thesis (4): the latter identifies the connotata of the defined term (by C2), while the former delineates the group of things among which the defined term is predicable, and the terms in obliquo must have as their extensions exactly the connotata of the defined term. The role of resolving in the indicated way the ontological commitment associated with the use of a connotative name leaves virtually no room for manoeuvre, at least at the level of a nominal definition. One might object that since, according to Cl and C2, what matters for the correctness of a nominal definition are only the primary significates (that is, the extension) of its categorial components (plus of course the syncategoremata), nothing in our set of rules prevents any particular categorial term occurring in obliquo within a definition to be replaced in this definition by some other coextensive, but non-synonymous, term (contrary to what Ockham says himself). But note that mere actual coextensiveness will not do; a nominal definition should hold for all possible worlds. And given Ockham’s ontological atomism, there can hardly be, in his epistemology, necessary coextensiveness between any two non-synonymous simple concepts, whether absolute or connotative.

Let us turn now to Thesis (2): a definition is not always synonymous with the defined term. At least two reasons can be given why a nominal definition satisfying Cl-C4 is not in general synonymous with the defined name. First, the definition is supposed to contain, in virtue of Cl, a general term in recto, the primary significates of which are all the things that are such that something else is smaller than they are. This, however, does not correspond to any natural kind, and there is no absolute concept signifying precisely these individuals. For the speakers of a language can, if they wish, use one location in place of several. Thus, in place of the complex expression “man alone”, I could use “B”, and so on with other expressions. Such conventional abbreviations, admittedly, will be entirely equivalent in meaning with the abbreviated phrases and they will be substitutable for them in every context (short of material supposition), since that is what they are instituted for. But this should not be conflated with the having of nominal definitions by normal connotative names.

For one thing, abbreviations can be used in place of any sequence, and no of the terms that contain, in conformity with Thesis (4), a term in recto and at least one grammatically subordinate term. Take Ockham’s second example in the passage from Summa Logicae I,8 just quoted: “b” in this case is introduced as an abbreviation for “tantum homo”, which does not save the required form for a regular nominal definition. The abbreviating procedure, indeed, can be used even if the abbreviated phrase has no logical or grammatical unity. Another of Ockham’s examples, just a few lines further, is that of an abstract term like “man necessarily”, which cannot be seen as a mere abbreviation for it, whether in mental or written languages. Ockham, on the other hand, does admit of the possibility of spoken or written conventional abbreviations for any complex sequence of terms whatsoever: “For the speakers of a language can, if they wish, use one location in place of several.” Such conventional abbreviations, admittedly, will be entirely equivalent in meaning with the abbreviated phrases and they will be substitutable for them in every context (short of material supposition), since that is what they are instituted for. But this should not be conflated with the having of nominal definitions by normal connotative names.

Three consequences can be drawn, which are of special interest for the ongoing discussions on Ockham’s theory of concepts.

3.1 Definitions and abbreviations

Since a connotative name is not in general synonymous with its nominal definition, it cannot be seen as a mere abbreviation for it, whether in mental, spoken or written languages. Ockham, on the other hand, does admit of the possibility of spoken or written conventional abbreviations for any complex sequence of terms whatsoever: “For the speakers of a language can, if they wish, use one location in place of several.” Such conventional abbreviations, admittedly, will be entirely equivalent in meaning with the abbreviated phrases and they will be substitutable for them in every context (short of material supposition), since that is what they are instituted for. But this should not be conflated with the having of nominal definitions by normal connotative names.
except when taken in material supposition, it cannot be the subject or the predicate of a well-formed sentence and cannot, properly speaking, suppose for anything. The two components "homo" and "necessario" simply happen to follow each other in some sentences (as in "homo necessario est animal"); man necessarily is an animal), and only in such sentences can they be replaced by the abbreviation.

In cases such as all, the latter are taken in the abstract sense, the former are not. They are not necessarily connotative names. Strictly speaking, they are not names at all, as comes out from Ockham's lengthy analysis of the abstract terms 'practica', 'linea', 'instans', 'mutatio', 'generatio', and so on in his Tractatus de Quantitate of an explicit kind. If it can be supposed of something composed of words, but 'they do not have precisely the value of a name'; properly speaking, they cannot 'be the subject or the predicate of well-formed sentences and cannot, properly speaking, supposit for anything. These limitations, of course, do not hold in all cases of abbreviations: i.e. single letter, let's say, was introduced as an abbreviation for an absolute or a connu atre, it could properly be used as a subject or a predicate and a personal supposition just as the original name could. The general point, however, is that the relation of an abbreviation with the abbreviated sequence is entirely different, in Ockham's view, from the relation of a connotative name with its nominal definition. The abbreviation process merely aims at a gain in brevity, in elegance or in poetic rhythm. A nominal definition, on the other hand, even if it can be used toas a procedure for introducing new terms in conventional languages, normally has a completely different function in Ockham: that of revealing the ontological import of a given term, whether mental or conventional.

3.2 Possession of concepts and knowledge of definitions

It has often been assumed that a nominal definition, for Ockham, is what a person should know if she is to be attributed the corresponding concept. We can now see that this cannot be generalized. Although Ockham is not explicit on the point, it follows from the theory of nominal definition presented above that, in the case of simple connotative concepts at least, to have the concept is not the same as to know what its nominal definition is. You could have naturally acquired a simple connotative concept such as 'similar' or 'smaller', without being able to tell at the first blush and with certainty what its correct nominal definition is, even if such a definition exists, and even if you do possess it for some other reason. This is because the trouble with realist philosophers is not that they lack certain ordinary concepts, like 'white'; it is, rather, that they misunderstand the ontological import of these concepts. Which amounts to say that they are wrong about their nominal definitions.

One could object that there are a number of passages where Ockham insists that the knowledge of the correct nominal definition of a given connotative name is presupposed by any sound use of this name in demonstrations or in disputations. This, however, does not entail that the possession of the corresponding concept is impossible without the express knowledge of the definition. Disputations and demonstrations are scientific activities conducted, in general, in some public conventional language, and their scientific and interpersonal character do require, no doubt, that all the participants have a common and clear understanding of the words they use. But the point, here, is that we might possess certain simple concepts which we are not ready to make use of in such scientific arguments, precisely because our grasp of them has not yet been rendered explicit enough. When Ockham writes, for example, that "the significate of a word cannot be known without the nominal definition, if it has one", he presumably uses a strong sense of the verb 'to know' (scire), and he uses it in connection with what the 'significare' of the connotative term is. In other words, what he is saying is that we cannot have a clear knowledge of what things exactly are signified by a given connotative term without knowing the nominal definition of that term. This should not surprise us: it is precisely what a nominal definition is for, according to the theory reconstructed above. What should be concluded is not that we cannot have a concept without knowing its definition, but rather that if we do have a concept without the definition, its speculative mastering of this concept is imperfect. We might, for example, apply it correctly to its most typical instances in everyday life, without being able to explicate it, and without, consequently, being able to make a rigorous use of it (or of the associated spoken or written words) in scientific demonstrations or academic disputations. It thus turns out - even if it was not quite clear about himself - that Ockham's theory of connotative concepts and nominal definitions challenges the idea that the conceptual content of the mind is always immediately perspicuous to the thinking agent.

3.3 Real orderings

According to condition C3 above, a good nominal definition for a given connotative name should show how the primary significates of this name are connected in reality with all its secondary significates. This implies that real singular things are ordered in the world in certain precise ways independently of the human mind, and that the human mind can sometimes acknowledge such connections. Ockham indeed is quite explicit that ordering does not result, in general, from a merely creative work of the intellect: 'it is not the intellect', he writes, 'which brings it about that one thing is similar to another, any more than it brings it about that Socrates is white or that Plato is white'. In the Summa Logicae, he enumerates a number of ways in which something can be prior to something else in reality: 'it can temporally precede the other, or it can exist without the other but not conversely, or it can be more perfect than the other'. This is an incomplete list, no doubt. Things can be really ordered for Ockham in many ways, without the human mind having anything to do with it: temporally, spatially, causally, axiologically, mereologically (as parts to wholes),
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What is required for thought and knowledge to take place is that the mind be ordered in such a way as to ascertain that certain things are ordered in certain ways with respect to certain others, that the one, for example, is larger than the other, or that the one inheres in the other, and so on. When such a recognition occurs on the basis of an intuitive grasping, it involves, as we shall develop in the next chapter, the formation of a simple connotative concept associating in some precise way its primary significates with its secondary significates. This is supposed to express, in virtue of condition C3, by its grammatical structure and its syncategorematic components. Ockham is committed to admit, consequently, that the human mind has innate capacities for grasping, in at least some respects, how things are ordered out there in the world, and to map these orderings into the very formation of its connotative concepts.

This is no breach to Ockham's distinctive brand of nominalism, since, as he sees it, it does not require the position of orders or relations as distinct things in addition to singular substances and qualities. A relation, he often says, is not an additional 'small thing' (parva res) in between the relata. The spatial order, for example, 'involves only absolute things' such that one of them is more distant than another from the same thing, or closer than another, without any spatitioional connection inhering in any of them as a distinct entity. An order is not like a box: between two bodies, 'as if these bodies would be such an intermediary, as the one thing to the other', or the 'small thing' to the 'little thing' (parva res). The relational order is not a relation between two absolute things, but is the ordering that the mind is innately able to recognize. Or should we be content with the fact that the definition and the defined term 'signify nothing else, whether primarily or secondarily'.

Of course, condition C3, as I have already remarked, is not explicit enough and it remains mysterious to some degree how the grammatical and logical structure of a definitional phrase is supposed to mirror reality. Should mental language be endowed, for example, with a special syncategorematic copula for each type of ordering that the mind is innately able to recognize? Or should we be content with definitions being incorrigibly impervious in this regard (with, for instance, only one copula being available for all asymmetrical orderings)? These are questions that Ockham's approach, but that he never directly addressed. That he didn't do so, however, is not surprising. They would have required an in-depth inquiry into the structure of the human mind, which he simply did not have the tools to achieve. And however important they may be in themselves, they were not, on the whole, that central to his own purpose. His main concern in the theory of nominal definitions, as

Notes
1. For a good account of the so-called 'Classical Theory', see Laurence and Margolis 1999, pp. 8-14. 'It would be difficult', the authors write, 'to overstate the historical predominance of the Classical Theory' (p. 10). Fodor 1998 devotes two chapters (pp. 40-47) to the criticism of such approaches.
3. Spade 1998, p. 355 (the italics are Spade's). What he calls here the 'more reductionistic program' holds that 'any statement containing connotative terms can be paraphrased by (and so in that sense 'reduced to') a strongly equivalent (perhaps even strictly synonymous) statement that does not contain connotative terms, but only absolute categoric terms plus syncategoremata' (ibid., p. 350).
5. See the texts quoted above chap. 4, an. 22, 28 and 30. The interdefinability of certain terms was accepted, long before Ockham, by Porphyry; see Porphyrii Isagoge. For a good account of the so-called 'Classical Theory', see Laurence and Margolis 1999, pp. 8-14. 'It would be difficult', the authors write, 'to overstate the historical predominance of the Classical Theory' (p. 10). Fodor 1998 devotes two chapters (pp. 40-47) to the criticism of such approaches.
6. That he didn't do so, however, is not surprising. They would have required an in-depth inquiry into the structure of the human mind, which he simply did not have the tools to achieve. And however important they may be in themselves, they were not, on the whole, that central to his own purpose. His main concern in the theory of nominal definitions, as
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Samuel (see the Introduction by G. Gill and S. Brown in OPh I, pp. 40–41); even though they believe that there is nothing in it which Ockham would not have approved of, not too much weight should be given to the details of the formulations found in it.

See, for example, Quodl. V, q. 8, OTh IX, p. 5: "... nec nominibus synonymis correspondit pluriLatius conceptum;" as well as the other texts mentioned above in chap. 4, n. 32.

See the passage from Quodl. V, q. 20, OTh IX, p. 556 quoted above in chap. 4, n. 40, as well as the discussion of Spade's objection to this argument in n. 41.

The point was developed in details in chap. 4, sect. 1.


Ibid.: "... talis nominis non sunt diverse orationes expressiones quid nominis habentes partes distinctas, quam unum signatum aliquid quod non eodem modo importatur per aliam partem alterius orationis."

SL III, 10, OPh I, p. 36: "Et tale nomen [compositum] proprium habebat definitionem inter se compositum nominem quid nominis habet...."

SL III, 36, OPh I, p. 691: "Connotativa definitio per ura subiecta sumpta in recto et in oblique et in oblique et in oblique, et in oblique et in oblique."

SL III, 16, OPh III, pp. 300–301. As Adams remarks (1987, p. 321), Ockham in SL II, 10, OPh I, p. 36, says that the nominal definition of a conative type contains the term "in recto et in oblique", leaving it open that it might not always be the case I'cli tale nominis proprium habebat definitionem quid nominis est, at frequenter operet ipsum esse definitionis in recto et aliquid in oblique, utile are mine; this possibility will be accounted for below (see in particular the passage quoted in n. 25 and 26).

Quodl. V, q. 19, OTh IX, p. 554: "Definitio auctem expressionem quid nominis proprium est de nominibus compositis, quia in orationibus compositis in recto et in oblique, scilicet "album", "calidum", "pater" et "filii" sunt habitos nominis simulanae.

See for example SL III, 26, OPh I, p. 609.

See the text quoted above in n. 18.

See SL III, 3–26, OPh I, p. 691: "Album auctem definitio sic "album est corpus habens albedinem"."

Ockham also loosely defines 'album' sometimes as "albidus habens albedinem" (for example, in SL III, 26, p. 88), but never as "albidus habens albedinem". For example, the passage from Quodl. V, q. 19, quoted above in n. 16. Now, two nominal definitions one of which contains a connotative term which is replaced in the other by its own nominal definition will not always be synonymous (in the sense, as we have previously stressed, some part of the replacing nominal definition might very well signify something under a certain mode which is not signified under the same mode by some corresponding part of the other (see, for precise). Now might think, although this is not one of Ockham's examples, of a term like 'gift', which connotes, presumably, both the donors and the receivers, but under different modes. Its Ockhamistic nominal definition, then, should include two distinct grammatical complements. It would read a bit like this: "something that passes from a donor to a receiver".

In SL III, 12, OPh I, p. 283: "... omnes tales termini [= negative, privative, infiniti] sunt vere comnotative, eo quod in eorum definitionibus explicantur quid nominis debet possi aliquid in recto et aliquid in oblique, vel in recto cum sequestrum pravica pravica (italics are mine).

Ibid.: "... et definitio eius termini [terreo "nommo"] est [aliquid unde est bona] et dicam de alii.

See n. 18 above.

In SL I, 31, OPh I, p. 94, the copula is defined as "verbom copulatum praedicatum cum subjecto". This can be gathered from Ockham's own practice that it's includes not only "to be", but any other connecting verb such as 'exist' (see, for example, SL II, 11, OPh I, p. 281 where 'exist' is treated as the copula of such sentences as "Saect exist albedo", "incipit esse" (see SL I, 75, OPh I, pp. 231–3), and even verbs like 'will' (see SL I, 24, OPh I, p. 321). Some among these, like 'exist', and maybe 'have', turn out to be purely syncategorematic in the sense that they do not have any special significatum of their own (see Quodl. VI, q. 29, ad 1, OTh IX, p. 695: "... donec quod unum exteremum propositionis in mente est conceptus syncategorematicus verbi copulativi sive copulantis subjectum cum praedicatu") or again Exp. in Perih. I, 2, 4, OPh I, p. 389: "boc vocem "esse" esseque quoque nempe.

Some verbs, Ockham says, signify certain things determinate (Exp. in Perih. I, 2, 2, OPh II, pp. 387–8). To run is a good example: it primarily signifies the runners and connotes their running acts. Such verbs are normally equivalent to a combination of "to be" plus a particular bate or condition. Ockham's analysis is well as Spade's objection to this argument in n. 41.

Some verbs, Ockham says, signify certain things determinately (Exp. in Perih. I, 2, 4, OPh II, pp. 22–3). For example, see SL I, 21, OPh I, p. 321, where Ockham discusses the case of propositions with adverbial determinations: "Et quin in tali case;... fortatim verbi in teum verbiio et in tali verbo..."

See for example, the passage quoted above in n. 17.

See SL I, 10, OPh I, p. 33: "Immo, proprie locando talia nominia [= nominia absoluta] non habeban definitionem expressionem quid nominis..."

The incompatibility of Spade's original interpretation with Theses (1) and (2) is straightforward. Spade held both that what he called the 'fully expanded nominal' definition of a connotative term is a simple definition of a connotative term contains no simple nominal term (Spade 1975, pp. 69–70), which is the negation of Thesis (1), and that every connotative term is synonymous with its own nominal definition (ibid.), which is the negation of Thesis (2). As for Thesis (3), the case is more indirect. A connotative term, according to Spade, frequently has more than one correct Ockhamistic nominal definition, since not all nominal definitions, he thinks, are 'fully expanded'; of them, hat is, are taken to contain connotative terms which have not yet been replaced by their own nominal definitions (Spade 1975, p. 69). This is not enough, Spade contends, since it is explicitly held by Ockham that there can be several variants for the nominal definition of a given composite name, on the condition that they all be strictly synonymous with each other, a condition which Spade readily admits (Spade 1975, p. 66). The problem, rather, is that Spade's notion of synonymy among complex phrases differs from Ockham's. According to Ockham, two different nominal definitions are synonymous variants of each other if and only if none of them contains a part which signifies under a given mode something which is not signified under the same mode by some corresponding part of the other (see, for precise).

Nor might think, although this is not one of Ockham's examples, of a term like 'gift', which connotes, presumably, both the donators and the receivers, but under different modes. Its Ockhamistic nominal definition, then, should include two distinct grammatical complements. It would read a bit like this: "something that passes from a donor to a receiver".

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Ibid.: "... et definitio eius termini [terreo "nommo"] est [aliquid unde est bona] et dicam de alii.

See above n. 18.

In SL II, 10, OPh I, p. XX: "Definitio autem expressionem quid nominis proprium est de nominibus compositis, quia in."

In SL II, 10, OPh I, p. XX: "Definitio autem expressionem quid nominis proprium est de nominibus compositis,..."

The translation and indices are mine.
Ockham on concepts

In what immediately follows, Ockham mentions that a term like ‘white’ signifies the same (‘singulat idem’) as its nominal definition. As we have previously seen, however (in chap. 4, sect. 3), this does not mean that they shall be synonymous in the strong sense, but only that every significant of ‘white’ must be signified in some way (by some part of the definition), which is a much weaker condition.

34. See above chap. 4, a. 14.

35. See for example Sl. I, 33, OPh. I p. 96: ‘Aliter accepitur ‘sigulat idem’ communissime quando aliquod linguam ... aliubiqur importet, sive principaliu sive secondario, sive in recto sive in oblique, sive aliquem intellegibile sive committat illud, vel quaescue ab aliquo continentur alium significat ...’ (the italics are mine).

36. See Ovd. I, dist. 2, q. 12, p. 96 (N.B. — this passage is about determinative and quidditative terms, but the former, for Ockham, are all connotative, and the latter are absolute): ‘... omnis conceptus determinativus habet definitionem expressitum ab detrinitate nominis, in quo ponitur aliquem in recto et aliquem in oblique. Tunc quare de una parte (et de prima parte, according to me. E) illius definitionis: aut habet definitionem concomitantiam expressitum quid nominis et quoniam parte de partibus sicut primum, et to el putam que sibi est in sensible et substatia in aliquem conceptum quidditativum praedicabilem de illo de quo primo conceptus ...’, becomes clear in the last sentence of the quotation (which I italicized). What Ockham requires is that the term in context is ultimately be an absolute name predicatible of everything of which the defined term is itself predicable (such as ‘body’ in respect to ‘white’, or ‘animal’ with respect to ‘father’).

37. Ibid. p. 24.


39. See below chap. 8, sect. 3.

40. We now see how it can happen, in some cases, that a concept in text ends up with no primary significates at all. Take the figment term ‘Vimum’, for example. Its definition according to Ockham is: ‘animal compositum ex capra et bove’). The grammatical complements ‘goat’ and ‘cow’ in this definition represent the extension of the defined term, and ‘animal’ plays the role of the term in context, the extension of which is expected to include not just the two animals there are, but also with connotative ones, such as ‘hot’ and ‘calidum’ (‘hot’ and ‘calidum’). Note also that not all pseudo-names, in Ockham’s view, are precise abbreviations. In some cases, they are only loosely connected with the complex expressions which they come from and can be explained, then, only in the context of whole sentences, with maybe various explications in various contexts. See, for example, how Ockham deals with the term ‘homo’ in such analysis, comes very close to the modern idea of a ‘contextual definition’.

41. Ibid., p. 24: ‘... sine omni figura et improprietate sermonis non possunt esse extrema propositionis distincta a copula’.

42. Ibid. p. 30: ‘Sed sunt quasdam nominum derivata a verbis aut aliis partibus orationis, vel consimilia talibus, quae non sunt instituta nisi causa metri vel ornatus vel brevitatis locutionis.’ See also (p. 30) ‘... significalum vocahuli non potesl ad substantiam ...’ (italics are mine). That this may have to do only with the first part of the definition, the term in context is explicitly proposed by one passage (Spade, p. 24). E becomes clear in the last sentence of the quotation (which I italicized). What Ockham requires is that the term in text is ultimately an absolute name predicatible of everything of which the defined term is itself predicable (such as ‘body’ in respect to ‘white’, or ‘animal’ with respect to ‘father’).
Cognition and Connotation

As to what is going on in the mind, the result of the preceding chapter, admittedly, is negative: nominal definitions, contrary to what Paul Spade and others had thought, are not meant by Ockham to reveal in general how connotative terms are mentally constructed out of more basic conceptual units. They are tools, instead, for the elucidation of the ontological import of such terms, and this role can be fulfilled quite independently of how the connotative names are acquired. The epistemological significance of simple connotative concepts, then, still has to be brought out: how are they implemented? And what contribution are they supposed to make to our knowledge of reality? Such will be the object of the present chapter.

The starting point, once again, will be provided by Paul Spade's stimulating formulation of the problem (section 1). The basic idea for sorting out the Ockhamistic answers to Spade's questions, as we will see, is that the *Venerabilis Inceptor* accepts, in a variety of cases, an intuitive apprehension of ordered n-tuples, which, given the way our mind is built, triggers the formation of simple connotative concepts (section 2). How concepts thus acquired are liable to adequate nominal definitions of the sort described in the preceding chapter, will then become apparent (section 3). This explanation, however, cannot hold good for all connotative terms. Many of them — such as 'father' — are not ascertainable on the direct basis of experience and must, presumably, be introduced in some derivative fashion on the basis of more primitive terms. The question will have to be discussed, consequently, whether Ockham's theory of concepts remains or not, in the end, a variety of the so-called Classical View, according to which, remember, the vast majority of our concepts are present in the mind in the guise of complex definitions (section 4).

1. Spade's questions

Although Paul Spade has recently granted that Ockham did in fact countenance simple connotative concepts, he still sees this as a mistake on William's part, given the rest of his theory. One of his main motivations for thinking so has to do with nominal definitions; this is what I have examined in detail in chapter 5. But it is not the only one. A second important reason he gives stems from the theory of knowledge. Here is, in his own words, what he takes the problem to be:

... there is another reason to be worried about the possibility of simple connotative concepts: they threaten to interfere with the epistemology of mental language ... Obviously there are many questions to ask here. What exactly does the mind do to produce these connotative concepts? If it does not use absolute concepts as parts of the connotative concepts it produces, then why are the absolute concepts required for this mental operation at all? And exactly what sense are we to make out of the 'semantic complexity' of
metaphysically simple concepts? ... In my view, any full account of Ockham's theory of
connotation must deal with these epistemological issues, since Ockham himself certainly
uses connotation-theory for epistemological purposes.1

Spade is undoubtedly right: these are questions that should not be avoided. Before I
set out to answer them, let me explain a little more precisely what their relevance is.

Three different related questions surface in the passage just quoted:

(1) How is the mind supposed to produce simple connotative concepts?
(2) Why are absolute concepts needed in the process?
(3) What sense are we to make of the semantic complexity of allegedly simple
concepts?

Let us start with the third one. Why does it arise? Well, Ockham's connotative terms,
whether spoken, written or conceptual, do have in effect a certain semantic complexity,
in the sense, precisely, that they are usually -- true of certain things in the world -- and a secondary signification or
connotation (they -- always -- obliquely refer the mind to some other things). If we are
to speak of simple connotative concepts, consequently, just as we speak of simple
connotative words (like 'white' or 'horseman'), we have to reconcile this alleged
simplicity with the semantic complexity which is taken to be characteristic of
connotative terms. The 'metaphysical' simplicity in this context is that Ockham, in his later theory at least (which is the one I am interested in here), treats concepts as real things. They are seen as intellectual acts, and such
acts, for Ockham, are real singular qualities of singular minds. My concept of
'horse' is something real in me, and your concept of 'horse', dear reader, is something real in yourself. Ockham, in fact, does not use any such phrase as
"metaphysically simple", but he does contrast simple concepts in the mind with
complex sequences such as propositions or phrases. Hear, then, can semantically
complex concepts still be simple objects?

This question, while relevant, is the least difficult of the three and I might as well
indicate at once what the answer will be. To say that a concept is simple in Ockham's
sense is not to say that it is devoid of any internal complexity. As we saw in
chapter 2, to say that a concept is a simple sign, in Ockham's vocabulary, is merely to
say that it is not composed of several parts each one of which is independently endowed
with a 'signification.' Compare with spoken words. A word like 'father', let's say, is,said to be simple, in Ockham's Aristotelian terminology, because it is not composed
of several other spoken words. This does not prevent it from having an internal
structure. For one thing, it certainly displays some phonological complexity. And
even some sort of semanticality in so far as it can be broken down into a
stem and an ending, each one of which having a distinctive semantic role to play.
Yet it is simple if we contrast it with such phrases as 'the father of Socrates' or
complete propositions such as 'my father had a moustache', where several
components independently have a representative value. The situation needs not be
different with concepts. The expression 'metaphysical simplicity', which Spade uses
here, is a bit unfortunate in the context.1 To say of a connotative concept that it is
simple is only to say that it is not composed of several other independently

signifying concepts. Although we still have to explain how this is possible, there is
nothing deeply metaphysical in the issue.

Let us now turn to Spade's second question. If simple connotative concepts do not
have absolute concepts as their parts, he asks, why are absolute concepts
nevertheless required for the formation of connotative ones? Spade, it must be said,
raises this difficulty in connection with a particular hypothesis he examines,
according to which simple connotative concepts would be mere mental abbreviations
for their complex definitions. They would indeed be simple intellectual acts,
according to this conception, but would be semantically equivalent to some complex
expressions -- their nominal definitions namely -- in which no connotative would
occur. In view of what we have seen in chapter 5, this hypothesis does not appear
any more tenable than Spade's original rejection of all simple connotative concepts,
since it continues to assume that all connotative terms are ultimately eliminable
according to Ockham (contrary to what we have labelled as Thesis I in chapter 5).2
And that there is normally no interesting semantical discrepancy between a nominal
definition and the corresponding connotative term (contrary to Thesis 2). Yet the
problem Spade raises with this second question is indeed a real one, for Ockham
does consider that the formation of a connotative concept presupposes in general
the formation of at least one absolute concept.

A clue to this is given in distinction 2 of the Ordinatio, where Ockham strives
to show, in Scotus's footsteps, that there must be some quidditative concept
univocally applicable both to God and the creatures. One of the arguments he uses
in the process explicitly incorporates the claim that the possession of a
denominative concept presupposes in general the possession of at least one
quidditative concept. Since denominative terms such as 'courageous', 'white', or
'creative' (which, in the spoken language at least, are concrete terms
morphologically related with corresponding abstract ones such as 'courage',
'whiteness', or 'creation') are all connotative according to him, and since
quidditative terms are all absolute, this amounts to saying that the possession of
some of the most typical connotative concepts presupposes that of some absolute
concepts. Here is part of the passage:

For example, I have this concept, that of 'creative being' namely, which I know to be
denominative, and therefore a certain concept must be prepossessed to which I attribute
this one, saying, for example, that a certain being is creative; and it is certain that this
concept to which this one is attributed is not denominative, or if it is, either the process
will go on infinitely or it will stabilize at some quidditative concepts.1

Anybody who has an applicable denominative concept such as 'white' or 'creative'
must also have an absolute concept of which the former is predicable within an
affirmative particular proposition (such as 'body' is in the case of 'white', or 'being'
in the case of 'creative'). Spade's second question, then, is entirely appropriate: why
should it be so? What, in other words, is the rationale for this epistemological
priority of absolute concepts over connotative ones?

As to the first question, finally -- how does the mind produce simple connotative
concepts? -- it is obviously the crucial point. Any account of Ockham's theory of
concepts has to provide a detailed explanation for it. Fortunately, such an
2. The acquisition of simple connotative concepts

How simple connotative concepts originally enter the human mind is one of these issues on which Ockham changed position as he moved from the fictum-theory of concepts to the actus-theory. What I want to present here, as in most of this book, is the later - and final - position. The order of the presentation raised against the fictum-theory of concepts: how can this approach account for the formation of syncategorematic concepts, connotative concepts and negative concepts? The objector asks. Ockham's answer is the same for all three categories: what the fictum-theorist has to say, he thinks, is that all of these are implemented in the mind as a result of its internalization of external language. The mind naturally produces simple intellectual representations of external worlds, as it does of any other object it comes in intuitive contact with; then it can, in addition, conventionally (ex institutione, Ockham says) endow these particular mental units with the very grammatical and semantical features of the words they represent, and use them accordingly within mental sentences.

Strikingly enough, this conception shares one of the most salient features of Spade's original interpretation of Ockham: no simple connotative concept, according to it, is naturally produced by the mind on the direct basis of intuition. Yet it markedly differs from Spade's reconstruction on several counts. For one thing, it does not identify connotative concepts with their mental complex definitions, as Spade proposed, but with certain inner representations of words, conventionally used in special ways. And it does not require, consequently, that a connotative concept be strictly synonymous with its nominal definition. Whether or not this approach is comparable with the ineliminability of relational terms from certain nominal definitions (as stated by what we called Thesis I in chapter 5) is not obvious, but it might very well be after all, if the phrase 'connotative concept' in this passage is taken - as seems probable to me - in what Ockham calls its narrow sense, according to which it excludes relational terms. If so, the explanation given in this passage would not be meant to account for the acquisition of relational concepts, and the conventional connotative words which are supposed to serve as starters for the implementation of simple connotative concepts, thought to be originally introduced in the external language on the basis of nominal definitions including in some cases both absolute and relational terms.

Let us recall how we normally acquire absolute concepts, according to Ockham.

The whole process naturally starts when the agent gets acquainted with a physical object - a horse, let's say - through the senses: this is the sensory intuition. The same object is immediately grasped by the agent's intellect: this is the intellectual intuition, which allows the agent to evidently know certain contingent truths about the object in question (that it presently exists, for example). A general concept is then formed: the specific concept of horse in our example, which requires only one encounter with a horse. When the agent later meets with other animals, such as a cow or a dog, he or she forms a generic concept, that of an animal, for example, or something in between like the concept of a mammal, all this, let me insist, being the result of natural causal processes. The question that now faces us is this: how can the formation of simple connotative concepts fit into such a picture? And the answer I want to put forward is that in many cases - though not in all, admittedly - the process, for Ockham, will be very much the same as the one I just described, except that the intuitive grasping which is required as a starter should be an intuitive cognition not merely of a single individual, as in the example of the horse, but of a plurality of individuals simultaneously present to the agent's perception as a plurality.

Although often neglected, some of Ockham's texts are quite telling on the matter. Let us carefully read, for example, the following passage from the Prologue of the Ordinatio:

Similarly, an intuitive cognition is such that when some things [please note the plural here] are cognized, one of which interests in the other, or is distant from the other or is standing in some other particular relation with the other, then straightforward in virtue of this incomplex cognition [note the singular] of those things [note the plural] the known whether the thing inverts or not in the other, or is distant or not, and so on for other contingent truths ... For example, if Socrates really is white, then this cognition of Socrates and of his whiteness in virtue of which it can be evidently known that Socrates is white, is said to be an intuitive cognition.

The starter, in the latter example, is a simple intuitive grasping of both Socrates and his whiteness simultaneously, and this is said to be enough for the cognizer to know that Socrates is white. This strongly suggests that the simple intuitive grasping of the two objects suffices to bring about the formation of the simple connotative concept 'white'.

A related passage from the Quaestio 43 [of the Quaestiones] is even clearer:

... a relative concept is caused by both extremes, posited simultaneously, prior to composition and division ... Therefore, the order is as follows: When two whitenesses are seen, then, first, the specific concept of a whiteness is caused in the intellect: second, the concept of a similarity is naturally caused through the mediation of that specific concept, and, I claim, this happens immediately, from the whitenesses themselves, or from the cognitions of them, and only after that, at least in the order or nature, is a proposition formulated.

I grasp two objects simultaneously, two whitenesses let's say. As usual, I naturally form the relevant abstract concept, the concept of whiteness in this case. The important point, however, for our present discussion, is that prior to any intellectual
composition or division. I also naturally form, according to Ockham, at least one simple connotative concept, that of 'being similar' in the chosen example. This is a general concept, which is the one that all the perceived likenesses among its primary significates and the other one among its connotates; it refers in the same way to all couples that are such that one member of them is similar to the other. It is a simple concept in the standard sense that no part of it is itself a concept; yet what it refers to the mind is to be ordered to the first member of which is a primary significate of this concept, and the second member a secondary significate.

We can thus see why the formation of a simple connotative concept always presupposes that at least one absolute concept exists. When the human mind naturalizes an absolute concept, such as "white" or "similar", it must apprehend at least two distinct objects as simultaneously present, two whitenesses, for example, or Socrates and his whiteness, or Socrates and Plato, and so on. As a result, it must apprehend them as distinct from one another. Each one, consequently, will trigger the normal natural process that leads to the formation of an absolute concept. If I see two whitenesses, as in the example from the passage just quoted, each one of them suffices to bring about in me the absolute concept of whiteness. The simultaneous grasping of the two of them brings about, in addition, the formation of at least one connotative concept, but this does not preclude the normal formation of the relevant absolute ones. In many cases, there will even be more than one absolute concept involved. Suppose, for example, that you simultaneously see a black dog and a black horse; what the Ockhamistic theory predicts is that you will then acquire (if you do not already have it) the absolute concepts of 'dog', 'horse' and 'blackness'; and, in addition, the simple connotative concepts of 'black' and 'being similar to' (or 'being similarly coloured').

It follows, in particular, that the possession of a simple connotative concept always implies the possession of a quidditative concept which is such that the connotative concept in question is prehensible of it as a true nominalistic part of the concept in question. Just as Ockham stated in a previously quoted passage, suppose, for example, that I have an absolute concept 'black'. When I meet with a black dog, I automatically acquire the simple connotative concept 'black' by meeting with it. And although I will have acquired on the same occasion – if I didn't already have it – the concept 'dog', this concept is such, in this situation, that the sentence 'a dog is black' is true. The simple connotative concept 'black', then, will be anchored to say, through the quidditative concept of 'dog'.

Note, however, that the presupposed absolute concepts in such cases are not parts of the connotative concept. The concept 'dog' is not a part of the concept 'black'; the concept 'whiteness' is not a part of the concept 'black' – even for those agents who have acquired the latter by meeting with white things. Similarly, if I see both Socrates and Plato and form the simple connotative concept 'taller' – because I intuitively understand it as taller than Socrates – I will also standardly form the absolute concept 'man'; yet the concept 'man' is in no way a part of the connotative concept 'taller'. I could have acquired this same relational concept by meeting with two agents instead, or I could have acquired the concept 'black' by meeting with a black horse instead of a black dog, and so on. The meeting with Plato and Socrates, in one example, or with a black dog, in another, merely serve as occasions for the formation of simple connotative concepts, just as they do for the relevant absolute ones. No part-whole relation is involved here. In the latter examples, the absolute

concepts, indeed, are not even parts of the nominal definitions of the connotative concepts (for example, 'dog' does not occur in the definition of 'black'). But even when they happen to be parts of the definition, it does not make them parts of the connotative concept itself. Suppose I see a white dog; I then form at least two absolute concepts, 'dog' and 'whiteness', and at least one connotative, 'white'. It so happens in this case that one of the absolute concepts involved, that of 'whiteness' namely, occurs – according to Ockham – in the correct nominal definition of the connotative concept (the definition of 'white' is supposed to be something like 'a body having a whiteness'). But the concept 'whiteness' in this case is no more a part of the concept 'white' than the concept 'dog' is. Its occurring in obliga in the nominal definition of 'white' simply warns us that whitenesses – real whitenesses, that is – are the secondary significates of this particular concept. And this, in Ockham's view, does not require that 'white' be a complex concept.

The answers to Spade's three questions, then, are straightforward:

(1) How does the mind produce simple connotative concepts? By simultaneously grasping a plurality of individual things.
(2) Why are absolute concepts needed in this process? Because each one of the individual things involved triggers the formation of at least one absolute concept. These absolute concepts, however, are not parts of the connotative ones.
(3) How is the semantical complexity of these connotative concepts compatible with their alleged simplicity? Because the 'simplicity' of such concepts merely means that no part of them is independently endowed with a significative. This does not preclude them from signifying some things in a certain way and some others in another way.

These answers make it clear why the ability to produce simple connotative concepts must have a major epistemological significance in the context of Ockham's theory. Their distinctive contribution to our cognition is that they are naturally acquired and will never be lost. If our basic stock of general representations was limited to absolute concepts, we might be able to categorize singular things, but not to reason or speculate about their being ordered in the world out there, which, of course, they are, as Ockham readily acknowledged. We have repeatedly insisted on this: the connotative concepts which are needed for a correct understanding of the world – especially the relational ones – cannot all be constructed out of absolute concepts and categorial connections. There is no reason, in particular, why the group of things which are ordered in a certain way with respect to some other things (those that are taller than something else for example, or similarly coloured, and so on) should always constitute a natural kind, or result from some formal combination of natural kinds.

If our categoricmatic concepts were all absolute, we would have a hard time finding our way in this world! It is easy, fortunately, that we are able to simultaneously grasp several things (and according to Ockhamism) to naturally produce, in this basis, certain general representations that are projectible to all other n-tuples in the world that are ordered in similar ways. From the epistemological point of view, this is the gist of Ockham's theory of simple connotative concepts.
The adequacy of nominal definitions

How such concepts lend themselves to nominal definitions, even though they are not introduced by them, can now be more fully understood. The main thing, once more, is that the triggering intuitions for these simple connotative concepts are grasplings of ordered n-tuples. The Ockhamistic picture of the mind supposes that a particular couple, let's say, is naturally treated as a sample for all other couples that are similarly connected; Plato and his whiteness are taken as a (complex) sample for all couples composed of a body and its whiteness; Socrates and Plato are taken as a sample for all couples composed of a taller individual and a shorter one, and so on.

What a nominal definition should do in such cases is to make it explicit, in the required way, to which couples exactly does a concept which is so acquired, naturally extend.

More specifically, Ockham's theory is committed to the idea that it should be possible in principle, for each simple connotative concept:

1) to identify the natural group of individuals that all the primary significates of this concept belong to (this corresponds to condition C1 of a good nominal definition, in the analysis put forward in chapter 5);
2) to delineate exactly the consorted group (condition C2);
3) to express, by means of the syntax and the syncategoremata, the connection that holds between the primary significates of the considered connotative concept and the corresponding secondary significates (condition C3).

The definition that does that must not necessarily be known – or even recognized – as such by every cognitive agent who has to deal with the relevant connotative concept. The role of an Ockhamistic definition, remember, is not to reveal what is going on in the mind of the cognition; but to tell us how the world should be for a given concept to apply. What is required by the theory is merely that it be possible to construct such definitions.

The real question that arises, then, is how the adequacy of the definition can be assessed in each particular case. If the cognitive agent cannot be expected to spontaneously give us the nominal definitions of his own simple connotative concepts, how are we to know that we get them right? This is not something Ockham expects from a nominal definition: it includes a categorematic term in context of Ockham's doctrine, this means, of course, that they should clearly apply to individual entities. What is required by this condition, however, can only be general agreement. A subject can be mistaken in the application of any one of her own concepts in some particular occasions – or even in many occasions – and in the inferences she makes with it. Condition D has to be used in constant conjunction with the other three.

Ockham, as I believe, is committed to all of this, but none of it is very explicit in his works. So I will not pursue the matter any further at the theoretical level. Let me simply illustrate how it can work with a couple of examples.

First, there are some general conditions to be considered:

(A) Formally, the definition should conform to the structure identified in chapter 5 and (normally) contain at least one term in recto and one (or more) grammatically subordinate term(s).

(B) The nominal definition should be compatible with a sound ontology. In order to play its role of clarifying the ontological import of the defined term, all of its categoric terms, whether in recto or in obliquus, should clearly apply to entities which are acknowledged as such by a good ontological theory. In the context of Ockham's doctrine, this means, of course, that they should clearly apply to individual entities.

(C) The nominal definition should be compatible with a sound epistemology. In the case of simple connotative concepts, in particular, this means that the connection which the definition sets down between the primary significates of its term in recto and that of its term(s) in obliquus, should be ascertainable on the basis of direct experience, at least in some cases. Otherwise, the abstraction process could never leave the ground!

Taken together, these three constraints make it clear that the adequacy of a proposed definition for a naturally acquired concept cannot be established by simply confronting it with the defined term, or with what the cognizing agents spontaneously say about it. Given what the definition is for, it is bound to be heavily theory-laden, especially with respect to semantics, ontology, and epistemology. Yet it is plain that the three criteria formulated so far do not suffice for establishing in any particular case the adequacy of some unique definition. A different sort of condition is still needed:

(D) The nominal definition should generally agree with how the defined concept is used in fact. Since concepts are not available for public observation, it has to be supposed for this test to be conducted, that a simple concept is usually linked, for a particular agent, with a given spoken word or linguistic phrase. How the agents apply the word in concrete situations and what inferences they make with it will count as evidence for how they use the concept. This indeed seems to be what Ockham does in practice.
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which applies exactly to the connotata of the defined term; the other components of the definition being syncategoric.

With regard to criterion (B), the proposed definition for ‘taller’ clearly agrees with what Ockham takes to be a signification of the sort that categoric terms are singular concrete things. Bodies certainly are at any rate. As to shorter things, one can turn, if in doubt, to the definition of ‘shorter’, which, presumably, would be something like: ‘a body with respect to which there is something taller’. Despite the striking circularity here, the recourse to this latter definition has the significant advantage of making it clear that the primary significates of ‘shorter’ and, consequently, of ‘taller’ – are also singular bodies. A complete Ockhamistic nominal definition, remember, is not intended as a reductive or a learning device, but as a way of making conspicuous the ontological import of the term in question. That this is done in this case is the help of two correlative definitions is not a problem for Ockham.20 What the example nicely reveals is that when two correlative terms are interdefinable in the way that ‘taller’ and ‘shorter’ are taken to be, they must both have their definitions in recto in the primary significates of the other, and the primary significates of each should be among the significates of the term taken in recto within its own nominal definition.19 These terms probably must be absolute terms,22 and, consequently, to the categories of substance or quality.

Criterion (C) also applies to the example, in so far as the case is in accordance with Ockham’s epistemology. What is supposed, in particular, is that there can be in normal human experience a simultaneous intuitive grasping of two things which is such that one of them is seen as taller than the other one, and the latter as shorter than the former. It is obviously the case of Ockham has in mind when he speaks of relational concepts that are ‘caused by both extant, posited simultaneously, prior to composition and division’.21 In such a situation, the two correlative concepts, as he says, ‘simultaneously enter the intellect’22 and can legitimately interdefine each other.

The proposed definition, finally, can be tested against criterion (D) if we suppose that the defined concept ‘taller’ is usually linked somehow with certain dispositions to apply it in concrete situations, and to use it within inferences. This does not mean that the simple concept itself is limited to a recognizable capacity or so an inferential role. Given its most important definitions, that ultimately indicate the sort of things that must be signified and connoted by the two terms, ‘taller’ and ‘shorter (criterion A). It is clear, however, that not all connotative terms can be acquired on the sole basis of direct experience. It is obvious, for instance, for one of Ockham’s favourite examples of connotative term: ‘father’. The acquisition of a simple concept cannot be enough for me to acquire a concept of ‘father’ if I do not already have one, since this simultaneous grasping of the two men is not sufficient for me to evidently know that one of them is the father of the other. If most terms in our external languages are connotative, as comes out from Ockham’s treatment of the Aristotelian categories, then this situation must hold for a great many of them. In other words, the acquisition process described in section 2 can account, in the context of Ockhamism, for the introduction of only a portion of all connotative terms. This is not to say that it is not important. We have seen, on the contrary, that such a mechanism is indispensable, in Ockham’s framework, for the development of appropriate mental representations of the world as it is ordered. But the question still arises: how are the other connotative terms acquired? And how are they represented in the mind? Must they not, in particular, be introduced by complex arrangements of

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It is clear, however, that not all connotative terms can be acquired on the sole basis of intuition. Many of them, surely, correspond to connections between things that cannot be ascertained in direct experience, even when the relevant objects are all physically present to the cognizing subject. Such is the case, saliently, for one of Ockham’s examples, the standard case of ‘white’ , with its (by now familiar) Ockhamistic definition: ‘a body having a whiteness’. What is special here with respect to the previous example is that the defined connotative concept is non-relational, and that it can, therefore, be signified by the corresponding statements of ‘white’, with its (by now familiar) Ockhamistic ontology in recto requiring only singular bodies as primary significates and singular whitenesses as connotata (criterion B). It also agrees with Ockham’s epistemology, since the sort of couples that are described in the definition (bodies with their whitenesses) can intuitively be grasped as such according to him.23 and this would typically be the kind of experience that can bring about the acquisition of a concept such as ‘white’ (criterion C). The definition, finally, can be tested against the intuitions of the speakers, through the observation of how they apply such words in concrete situations, and what inferences they are prone to make with them (criterion D).

The simple connotative concepts acquired on the basis of direct experience are not identified, within Ockhamism, with their nominal definitions; they are not introduced by way of them, and they do not have to be synonymous with them. Yet, because of their naturally hierarchical semantical structure, they do have such definitions, and these can, in general, be made explicit with the help of a good semantical, ontological, and epistemological framework. What has to be assumed for this – as Ockham certainly does – is that the possession of a given simple concept is usually linked somehow with certain dispositions to apply it in concrete situations, and to use it within inferences. This does not mean that the simple concept itself is reduced to a recognizable capacity or so an inferential role. Given its most important function, which is to contribute in determinate ways to propositional acts, the specific identity of any given concept, whether connotative or absolute, is partly determined by the way its (primary and secondary) significates are fixed. In the case of simple connotative concepts of the type we have discussed so far, as in that of simple absolute concepts, this is done by the natural working of the abstractive process on the basis of experiential intuitive grasping. The distinctive feature of simple connotative concepts, from this point of view, is that they are specifically triggered by the grasping of ordered n-tuples. This is why, ultimately, any one of them can in principle be defined along the lines set down in chapter 5.
more primitive concepts? And if so, aren’t we led back to an interpretation of
Ockham’s theory of concepts as a variant of the so-called Classical View, according
to which the vast majority of our concepts are in fact complex definitions?

What we have is that other modes of introduction there can be for connotative terms within Ockhamism, besides the intuitive grasping of n-tuples. As far as I can see, at least two different—but non-exclusive—such procedures can be accepted by Ockham: abbreviation and definition.

As to abbreviation, Ockham admits that the speakers of a language can always, if they wish, “use one locution in place of several.” The result of this procedure will not in every case be a connotative term, but it can be if the abbreviated phrase is structured in such a way as to be capable of occurring in personal supposition as the subject or predicate of a well-formed sentence. If a complex phrase such as “man necessarily” is abbreviated into a single word as Ockham admits it can be,30 the resulting abbreviation will not be a true connotative name since the original complex phrase is not capable by itself of being subject or predicate of a well-formed sentence; such expressions, as Ockham says, “do not have precisely the value of a name.” A phrase such as “black horse”, on the other hand, can occur as subject or predicate; if we should abbreviate it into a single word, the resulting neologism—“blorse”, let’s say—would be a perfectly good connotative term. When Ockham speaks of this abbreviated device in Summa Logicae I, 8, he presents it as “serving between linguistic units: a complex spoken or written phrase, can always be abbreviated into a single word. But there is no reason why it could not hold between a complex mental phrase (for example, the complex mental expression corresponding to the English words ‘black horse’) and a single spoken or written word. In such cases, the external connotative term would be represented inside the mind in the guise of a complex concept, and it would be strictly synonymous with this concept.

Nominal definitions, on the other hand, can also be accepted within Ockhamism as a device for introducing connotative terms. Nothing prevents us from constructing complex expression having the required Ockhamist form for a good nominal definition and, then, to conventionally strike a word of which this complex expression would be the definition. Such cases would importantly differ from the previous ones in that the introduced term would not necessarily be synonymous with the complex phrase that is used to introduce it, since, as we repeatedly insisted, an Ockhamistic nominal definition is not synonymous, usually, with the term it defines. The definition indicates what the primary and secondary significates of the newly introduced term are, but some of its components can signify or connote certain things that are neither signified nor connoted by the defined term. ‘Father’ is a case in point. Since it cannot be acquired as a single word, the resulting neologism—“belfer”, let’s say—according to Ockham, is a good nominal definition (‘male animal having a child with it’), we may conjecture that it can be introduced in a language by way of this definition. If it will not signify every single thing that is signified by at least one component of the definition (it will not signify all animals, for example), and it will not, consequently, be synonymous with the definition in Ockham’s strong sense of synonymy, it will not be said, in particular, to be subordinated to its mental definition, in Ockham’s technical sense of ‘subordination’.31 Yet it would have a determinate meaning in the external language, while being represented in the mind by a non-synonymous complex phrase.

The outcome is that whether they are introduced by abbreviations or by definitions, simple spoken or written connotative words of the sort we are now discussing should be represented in the mind in the guise of complex conceptual combinations. Although a bit more complicated, this comes very close to what the so-called Classical View is taken to hold, except that when nominal definitions are involved, strict synonymy is not required between the simple external word and the corresponding mental sense. Despite this non-negligible difference, a still to be supposed in the Ockhamistic framework that a large part of the simple connotative terms of our external languages receive their meanings from complex constructions out of more primitive simple concepts.

We are not brought back to Spade’s picture of Ockhamism for all that. The main problem with this picture was that the only categorematic concepts it accepted as primitives in the Ockhamistic constructional procedures were the absolute ones. It would have followed that the meanings of all relational terms should be constructible on the sole basis of absolute terms (plus syncategorematic). Which was doomed to failure. What we arrive at now is entirely different. Among the simple concepts naturally implemented in the human mind on the direct basis of experience, there are also some connotative terms for Ockham, relational ones especially. And this allows us to argue for a much more powerful natural basis than Spade and his followers thought, with a much better prospect for Ockham's nominalistic program thus reintroduced.

In a recent paper, one of Spade’s pupils, Yiwei Zheng, has expressed the worry that as a result of my acceptance of simple connotative concepts in Ockham’s epistemological basis, I’d be led to abandon ‘the idea that Ockham's mental language has a recursive semantics’, an outcome which Zheng sees as ‘clearly undesirable’.32 But why should I be so led? What a recursive semantics requires is that there be both primitive and derivative terms in the considered language and that the semantical properties of the derivative ones be obtained from that of the primitive by means of a limited number of (indefinitely) repeatable constructional rules. This is indeed what we arrive at. The difference with Spade’s original proposal in this respect is that Ockham’s primitive basis, as I see it, is extended to include a number of connotative terms (those that can be acquired on the basis of intuitive grasping) in addition to the absolute ones. Even though they are definable, these basic connotative terms are not reducible to more primitive concepts, since their definitions can circularly involve certain terms which they themselves serve to define. But many other connotative terms are still taken to be engendered through constructional devices (abbreviations or nominal definitions) which can be governed by recursive rules. Just how many simple connotative concepts can there be, or what their proportion should be, is left open in Ockham’s own texts. All we can say is that there should be at least one for each sort of connection between individual things which is independently ascertainable on the basis of direct intuition, a finite quantity presumably. The other ones are to be constructed somehow, and, as far as we know, an infinity of them might very well be possible…

The important point for Ockham’s programme is that the admittance of simple connotative concepts into the basis of the epistemological system does not complicate the ontology, not more at any rate than what is acceptable for him. Simple connotative terms have primary and secondary significates, but given the way these terms are acquired, all of these are singular things. Spade and many other
commentators have been presupposing that the ontological elimination of special entities from the categories other than substance and quality was only possible, in the context of Ockhamism, if all the terms in these categories—and especially all the relational ones—could be reduced through constructional devices such as definitions, to absolute terms from the categories of substance and quality.14 But this is not how Ockhamism’s nominalisms work. The ontological impact of a given term, for the Vulnerabilis Inceptor, depends on what entities it is supposed to signify, whether primarily or secondarily. Irreducible connotative concepts, therefore, can be admitted if it can be shown—through their nominal definitions—that they signify or connote nothing but singular substances or qualities.

Notes
2. See above chap. 2, sect. 4.1.
3. See also Zheng 1998, whose discussion of Ockham’s theory of connotative concepts equally builds up this distinction between metaphysical and semantic simplicity.15
4. See above chap. 5, sect. 1.
5. Ord. I, dist. 2, q. 9, OTh II, p. 315-16. ‘Verbi gratia, habemus teorem conceptum, putate esse creativum, quom scis esse denominativum, et idem opus quae habentium conceptum cuius istam attributa, puta dicendo quod aliquid aliquid est esse creativum: et certum est quod iste conceptum cuius istae attributa non est denominativus, vel si, et eorum process in infinitum vel stabitur ad aliquam conceptum quodlibitativum (Italics are mine).
7. Ord. I, dist. 2, q. 8, OTh II, p. 282: ‘Quartum dubium est de conceptibus syncategorematicis et connotativis et negativis: unde possunt uni vel aliubi attributi?’
8. Ibid., pp. 285-26: ‘Possunt autem tales conceptus imponi vel conceptus abstracta a vocibus ... Tam, ut ipsis vocibus dictius, in conceptu generali communis praedicabiles de ipsis et imponi ipsis conceptus ad significandum illud eadem quaeramus simpliciter esse et extra. Et eodem modo et de talibus formare propositiones compositae et habere compositae proprietates quales habent propositiones predicatae.’ For a detailed analysis of this approach in so far as it applies to syncategorematic concepts, see below chap. 7, sect. 1.
9. Ibid., p. 285: ‘Ad quartum dubium dixerunt [or dico, according to ms. A and F] quod conceptus syncategorematici et non conceptus abstracti ex sua natura supponentur pro rebus ... Et idd dixerunt [or dico, according to ms. A, B, C and F] quod nullis [est] conceptus syncategorematicus nec connotativus nec negativus, nisi tamen ex istis institutis ...’
10. See Exp. sup. Frenc. II, 16, OTh III, pp. 306-27: ‘Large nomine non sit vocatur connotativo in cibus definitione positio aliquid in recto et aliquid in obliquo, vel verbum vel alius pars orationis ... Isto modo accepionem hune terminum “nomine connotativum”, et in plus quam “nomine relativum”; quia omne nomine relativum est nomine connotativum ... Alter acceptor nomine connotativum sticte ... Omnia autem nomina connotativa, large accepionem connotativum, praeter ipsis quae sticte vocatur connotativa, sint nomina relativum’ (italics are mine). I deem it probable that Ockham uses the narrow sense in the passage from the Omnisimae we are currently considering, because it is the simplest interpretation in the context. Except in Ockham’s own logical works, where he remedied the notion of a connotative term and gave it both a wider extension and a greater weight, it was usual at the time to distinguish connotative from relare terms (see, for example, the Pseudo-Campbell, Logica 9, ed. Synan 1982 p. 102: ‘... differencia est inter connotativa et relativa ... ’). It is relevant to note that this particular passage of the Ordinatio was written early in Ockham’s career and that the technical word ‘connotativum’ is introduced in it via an objection.
11. In Exp. sup. Frenc. II, 16, OTh III, p. 302, Ockham makes it explicit that relational terms occur in the nominal definitions of some non-relational connotative terms: Ex quo pariter distinctio inter nomina relativae et connotatiae. Sequitur aut in e loco quod non alione ennom en cius definitione expresse quod nominis positurum nominem relatum est nomen relativum.’
12. This conceptio theoretica of connotative and syncategorematic concepts is allusively referred to again in a few other passages. See in particular Ord. I, dist. 3, q. 2, OTh B, p. 403: ‘Terito, dico [Deus] est cognoscibilis a nobis in conceptio aliqua simplex ad placitum instituto ad significandum, et hoc in conceptio connotativa et negativa sibi proprio’; and—more surprisingly, since this is supposed to be a later text, but also more restrictively, since it bears only upon mental syncategorematic terms—in Quodl. IV, q. 35, OTh IX, p. 471: ‘... siga mentalia ad placitum significantia ... pita syncategoremata mentalia’.
13. See the summary of the process given in St, III-2, 29, OTh I, p. 557, with, in this case, the example of a man as the known object: ‘... sed iste est processus quod primo homo cognoscer aliquid aliqua simpliciter ad placitum instituto ad significandum, et hoc in conceptio connotativa et negativa sibi proprio’; and—more surprisingly, since this is supposed to be a later text, but also more restrictively, since it bears only upon mental syncategorematic terms—in Quodl. IV, q. 35, OTh IX, p. 471: ‘... siga mentalia ad placitum significantia ... pita syncategoremata mentalia’.
14. See above chap. 5, sect. 3.2.
15. See above chap. 5, sect. 3.2.
16. See above chap. 5, sect. 3.3.
17. See above chap. 5, sect. 3.2.
18. See Ord. I, dist. 2, q. 9, quoted above in n. 5.
19. See above chap. 5, sect. 3.3.
21. In respect to which there is ‘can be treated in the proposed formulation as a single syncategorematic asymmetrical proposition or copula, but as ‘having’ in Ockham’s definitions of ‘white’ (“a body having a whiteness”) and ‘father’ (“an animal having a child”). As I earlier noted, Ockham does not provide any detailed theory for such syncategorematic connectors. More on this in chap. 8, sect. 3 below.
Chapter 7
Concepts as Similitudes

Faithful to the Aristotelian tradition, Ockham holds that a concept is a likeness of whatever it represents, a similitude. Many commentators have seen this as a problem: what can it mean in the context of Ockhamism? Is it a rare façon de parler? Or even an inconsistency on William’s part? Or is there some philosophical interest, within his nominalism, to this notion of the concept resembling its significata in some sense?

Marilyn Adams, for one, devoted an important development to the question in her landmark book of 1987: ‘I do not see’, she concluded, ‘how Ockham can specify, either on the objective-existence theory or on the mental-act theory, a similarity relation that can constitute the natural signification relation for general concepts such as “animal” and “man.”’

A couple of years later, Pierre Alferi went further and claimed that strictly speaking, Ockham is inconsistent in accepting the vocabulary of similitude within his mature theory of the concept, and that he yields in so doing to an unrigorous way of speaking, a mere remnant of an old doctrine that he had himself rendered obsolete. Joel Brard even suggested in 1989 that Ockham, in fact, abandoned the vocabulary of resemblance when he turned to the actus-theory. While admitting in a later work that this was somewhat of an exaggeration, he still strongly stressed the prominence of causality over similitude in Ockham’s final theory of natural signification. Both Cyrille Michon and I have discussed the point in some detail in the 1990s, and concluded that similitude was always considered indispensable in Ockham’s epistemology; but we still underestimated, I am afraid, the interest and importance of the idea in Ockham’s own eyes. I would like to revisit the whole issue in the present chapter.

As in most of this book, I will concentrate on Ockham’s mature theory, where concepts are identified with mental acts. We will see first that the notion of conceptual similitude is still importantly present in this phase of his thought, with significant philosophical roles to play (section 1). In the absence of explanations from Ockham himself about what this means exactly, I will propose a tentative interpretation (section 2), and apply it to the main categories of general concepts countenanced by the actus-theory (section 3). This will put us in a position, finally, to discuss in some details two intriguing puzzles recently raised about Ockham’s theory of absolute concepts (section 4).

1. Similitude sustained

That the concept is a likeness of the thing represented is an integral part of Ockham’s former theory. How can a purely ideal object such as a fictum represent anything within a given mind? The answer was that it is a kind of intellectual picture:
CONCEPTS AS SIMILITUDES

Ockham on Concepts

...seeing something outside the soul, the intellect forms something similar within the mind, in such a way that if it had a productive capacity, just as it has a representative capacity, it would produce such a thing outside itself in real being, which would be numerically distinct from the prior one... And this [= the fictum in the mind] can be called a universal, for it is a portrait and it indifferently refers to all the [relevant] external individuals, and in so virtue of this similitude is objective being that it can supposit for external things.

Elizabeth Karger, in commenting on this passage, suggests that Ockham's fictum is "a sort of purely ideal blueprint of the thing." It has what could be called an intentional resemblance with what it represents, and this resemblance accounts for its semantical features of the concept, its capacity for supposition in particular.

This seems unproblematic within the fictum-theory because the concept, in this framework, is supposed to have no other mode of existence, precisely, than that of an intelligible portrait. When Ockham abandons the fictum-theory, in favour of the actus-theory, however, he did not renounce the idea that the concept is a similitude. Several texts of the mature period testify to it.

In Quodlibet IV, 15, the Venerabilis Inceptor, having criticized the fictum-theory, reaches the following conclusion:

Therefore, I claim that both a first intention and a second intention are in reality acts of understanding, since whatever is preserved by appeal to a fictive entity can be preserved by appeal to an act of understanding. For like a fictive entity, an act of understanding (i) is a likeness of an object, (ii) is able to signify and supposit for things outside the soul, (iii) is able to be the subject or the predicate in a proposition, (iv) is able to be a genus or a species, etc.

The argument is straightforward: all the representational and semiotical functions we might want to attribute to a concept can be fulfilled by the act of intellection as well as by the fictum; since the act is indispensable anyway, as everybody admits, the Razor Principle requires the elimination of the fictum. Now, among the conceptual functions, the first one Ockham mentions is similitude: an act, he says in so many words, can be a similitude of the object represented.

This is not a slip or an isolated statement. One can turn, for example, to another passage where Ockham elaborately discusses the fictum- and the actus-theory and clearly decides in favour of the latter: the Questions on Aristotle's Physics. Questions 1-7 of this work are dedicated to the conceptual status of the concept. Ockham, there too, explicitly subscribes to the idea that "the concept is a similitude of the external thing." As Cythile Michon has remarked, he even turns the point into an argument in favour of the actus-theory. Off the seven arguments against the fictum listed in question 1, the seventh - and longest - is the following:

Seventy-five, such an ideal picture [idolum] would differ more from a thing, than whatever thing from another one, since a real being is a rational being differing more from one another than any two real beings; this is why such a picture would more assimilate to a thing and consequently be less able to supposit for a thing, than the intellection [or intellectual act] which assimilates more to a thing, and the ideal picture will less be common to external things, and it will less have the status of a universal than the intellection. But such a picture is called for in no case except for suppositing for a thing.

The possibility for a general concept to stand for real external things within a proposition is here said, once more, to hang upon the resemblance of the concept with the things in question. But an act, Ockham says, can be more similar to any real thing than a fictum can, since it is itself a real thing.

It is true, as Michon stresses, that Ockham had put forward a reply to this argument in a previous discussion of the fictum- versus the actus-theory. This was in the Prologue to his commentary of Aristotle's Perihermenes, a text in which he still seemed to hesitate between the two approaches. His rejoinder, then, was that a real resemblance is not needed in order to account for the conceptual functions: a resemblance 'in intentional being' is what is relevant for the concept to be able to supposit for a thing, or to be common, etc. Yet, the conclusion he reaches in the Questions on the Physics, is that a real resemblance is even better suited. And the whole discussion, anyway, presupposes on both sides that the likeness of the concept with the thing - whether it is a real or a merely intentional similitude - is the condition of possibility for the referential functions of general concepts to be fulfilled.

In the Quodlibetal Questions, moreover, the idea that the concept is a similitude is the basis for another important philosophical argument. Ockham uses it as the main premise to show that there are no simple singular concepts in the human mind. Since the representational function of the concept depends upon its resemblance with certain real things, he argues, any given concept must equally represent all the individuals which are maximally similar to each other, and it cannot, consequently, singularize any of them in particular. See the following extract:

Fourthly, I claim that our intellect cannot have any such proper and simple concept with respect to any creature, either with or without a vision of the creature, and this is because each such cognition or concept is equally a likeness of, and equally represents, all exactly similar individuals, and so it is not a proper concept of the one that of the other.

The same argument is found in another passage of the Quodlibetal Questions, which is even more interesting for our present purpose:

Third, I claim that the first (by aprimacy of generation) simple abstractive cognition is not a cognition proper to the singular but is sometimes, indeed always, a common cognition... This assumption is evident from the fact that no simple abstractive cognition is more a likeness of one singular thing than of another exactly like it; nor is it caused by, or apt by nature to be caused by, [just] one thing. Therefore, no such cognition is proper to the singular thing; rather, each such cognition is universal.

The 'first abstractive cognition' in Ockham's vocabulary, is the one that is generated in the mind on the heels of the singular intuitive cognition. I see a match for the first time, let's say. Once the intellectual intuition occurs, a concept is immediately generated, which abstracts from the existence of this concrete small bird in front of me. What Ockham is now telling us is that this first abstractive cognition is already general. I is not a singular representation of this particular
nuthatch, but a concept of everything— even every possible thing—which is maximally similar to this nuthatch, in short a universal concept of nuthatch. The reason given for this is that an abstractive cognition represents something in virtue of resembling it. What accounts for the representational import of a concept is similitude, not causality. As we now have a well-thought-out thesis in Ockham, even in the context of his later actus-theory.

2. Acts and similarities

How is this to be understood? The question has been sharply raised by John Birard in particular. In the move from the fictum—to the actus-theory, Birard contends, 'the idea of similitude loses some of its force, and the concept of similitude becomes a thing such as a concept endowed with an esse obsequitum but what does a resemblance between a thing and an act mean?'

Objections, indeed, have already been raised in Ockham's own times. The Dominican Crathorn, a harsh critic of Ockham's theory of mental language, was ironic on the point as soon as the early 1330s in his commentary on the Sentences. It is impossible, he complained, that a quality in the mind should simultaneously resemble everything there is, as the concept of 'being' (esse) would be supposed to in Ockham's doctrine. And how could the general concept of 'quality' (qualitatem) be itself a mental quality in the same sense? How could the concept of 'colour' be a quality naturally resembling whiteness, redness and green all at once? How, we might add, could the mental act corresponding to the concept of 'animal' equally resemble a butterfly and an elephant, while having both a greater resemblance than with an orchid or a human? These are disturbing questions. Yet what they primarily suggest, I submit, is that our understanding of Ockham's own idea of similitudo is still inadequate— he is not in the habit of writing carelessly on topics that matter to him, and since he obviously takes with great seriousness the role of similitude in conceptual knowledge— it is, after all, supposed to account for the task that is incumbent upon us at this point is to try to figure out what he means by 'similitudo' in such contexts, even though he does not bother to explain it much himself.

A number of familiar notions of resemblance must be discarded as irrelevant at the onset. One sense which does not apply, for instance, the standard Aristotelian one, according to which a thing A is similar to a thing B if A and B share a common quality, or if, at least, they both have a quality of the same sort. The shirt and the horse Bucephalus, for example, resemble each other in that they both have a quality which is a whiteness. This is not Aristotelian in Categories 8, 11a 15–19; strictly speaking, Ockham says in commenting on this passage, 'nothing is said to be similar or dissimilar to something else except according to a quality.' This acceptance was common in the Middle Ages, and Ockham himself frequently uses it. Yet it is much too restrictive for our present concern. Only substances can be said to be similar to each other in this sense, for only substances have qualities. A whiteness, for example, would not be similar to another whiteness, according to this restrictive use, since whitenesses, being themselves qualities, do not have further qualities with respect to which they could be said to be similar in this strict sense. A fortiori, a mental

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act—which is a quality of the mind in Ockham's ontology—could not be said to be similar to anything. Nor could the mind itself be said to be qualitatively similar to the represented thing, since it does not in general acquire through representation a quality of a sort which is exemplified by the thing represented: the soul, after all, does not become red when it forms a conceptual representation of a red thing!

A second sense of similarity that should be excluded from the present discussion is the one Ockham presupposes when he speaks of two things being 'maximally similar' to each other: simillimae. As I have explained elsewhere, the superlative simillimus amounts to a technical term in Ockham's vocabulary: it usually applies to things which belong to the same species specialissima. Two men, for example, will be said to be maximally similar to each other, or it could be two nuthatches, or two horses. Or even two whitenesses: maximal similarity in this technical sense is not restricted to substances. And it is not a degree of qualitative— or accidental— similarity in the Aristotelian sense identified above. What it presupposes is a general notion of essential similarity, understood as a graded relation. A horse and a dog, for example, have a non-maximal essential similarity to each other, because, although they do not belong to the same species specialissima, they both are animals; this does not depend upon any quality that they might have, but directly upon what they intrinsically are, their (singular) essences. A whiteness and a redness, in this sense, also have a non-maximal essential similarity to each other, for they both intrinsically are colours. Whether maximal or not, essential similarity is crucial to Ockham's ontology and epistemology. Yet it is obviously not the relation we are looking for between a concept and whatever it represents, since a concept does not represent something in virtue of belonging to the same species or the same genus as the thing. Not only is the concept of horse not a horse, but it is not a mammal either, or an animal, and not even a substance for that matter.

There is a third sort of resemblance that must imperatively be put aside at this stage, although some commentators seem to have it in mind when discussing these issues. It is the idea of a perceptive image that one could look at, like a colour photograph or a realistic picture. This model for understanding similitude, I suspect, plays a non-negligible role in the difficulty many scholars encounter with the idea that a mental act could have been accepted as a likeness of the represented object. How, after all, could an intellectual act be anything like a photograph? For one thing, the intellectual act, for Ockham, does not need to be looked at by the mind in order to represent; it does not display, like photographs or statues do. What we should conclude, however, is not that Ockham's idea of conceptual similitude is muddled, but that this is not the right model for it. Other possibilities are to be explored.

Let us return to Birard's incisive question: 'what does a resemblance between a thing and an act mean?' Above all, we should not be misled by the term 'act' in this formulation. As was explained in chapter 2, a mental act for Ockham is not an action in the modern sense, or a gesture, or a movement. It is more like an actual state of the mind, a posture it takes. It does not, in particular, have to be dynamic. Consider, for a comparison, the manual grasping of an object. This is an act, in Ockham's sense. It is not identical with the hand itself and can be classified as a quality of the hand just as the intellectual act is classified as a quality of the mind. The grasping, however, is not necessarily a gesture or an action. It can simply
correspond to a static position of the hand, which makes it easier to understand how it can be a likeness of the thing grasped.

Even a dynamic gesture, actually, can mimic an object in certain cases. I can sketch the form of a human body, or of a house, with a movement of my hands. A fortiori, nothing prevents a static actualized state of my hand to be seen as a likeness of some external thing. Suppose I grasp a ball, or a pen, and let the grasped object be removed without anything moved. What is left is the actualized state of the ball or of the pen. In Ockham's vocabulary, the remaining act of my hand — its actualized state or position — is a similitude of the object it previously grasped. It is, admittedly, a rough similitude in this case, but a similitude nevertheless. This manner, moreover, is to the same degree a similitude of any other object which is sufficiently similar to the original ball or pen. In so far as it is a similitude, this posture of my hand pertains to a multiplicity of possible objects. If it could play the role of a sign within a proposition, it would be a general sign, able to suppose for all the objects that have the relevant shape. This comparison, I believe, brings us very close to Ockham’s point about the similitude 'by fitness' (secundum convenientiam), which he described as an intentional similitude in the sense put forward in the previous section.

A fortiori, nothing prevents a static actualized state of my hand to be seen as a likeness of anything which is relevantly equivalent with the one that caused it; the posture of a hand is a similitude, in the required sense, of every (possible) singular object which is relevantly equivalent with the one that originally caused it. This is, I believe, Ockham's basic intuitions on the matter.

Although asymmetrical, however, and closely related with causality, this connection is not to be identified with causality, since it relates something not merely to its actual or possible cause, but to every other thing which is relevantly equivalent with it as to yield the required results within the framework of Ockhamism. Ockham holds, in particular, that a single encounter suffices for the formation of a general concept corresponding to a species specialis, while several are needed for generic concepts. The idea of similitude just developed accounts for the representational generality of the conceptual act, and for the recognitional capacities of the intellect, but will the resulting generality always be the right one? Given this understanding of intentional similitude, how are we to explain, in particular, that our intellect reaches specific concepts at one sitting? And how can our comparison with the objects that have the relevant shape. This comparison, I believe, brings us very close to Ockham’s point about the similitude 'by fitness' (secundum convenientiam), which he described as an intentional similitude in the sense put forward in the previous section.

The required notion of similitude, however, is quite distinctive. It is neither qualitative resemblance in the Aristotelian sense (between two red things, or two round things), nor essential similitude (as between two nuthatches, or between a dog and a horse), nor perceptual likeness (as between a photograph or a statue and the pictured object). The relevant Ockhamistic connection typically follows upon a causal link and thus differs from both qualitative resemblance and essential similitude by being asymmetric: a foot track, in this sense, is a similitude of the respective concept with the represented object. A foot track, in this sense, is a similitude of the object which is grasped, it is also a likeness of any other object which is relevantly like it. While causality is strictly singular, generality naturally comes along with it.

3. Varieties of conceptual representation

It remains to be seen how this model can be applied to intellectual acts in such a way as to yield the required results within the framework of Ockhamism. Ockham holds, in particular, that a single encounter suffices for the formation of a general concept corresponding to a species specialis, while several are needed for generic concepts. The idea of similitude just developed accounts for the representational generality of the conceptual act, and for the recognitional capacities of the intellect, but will the resulting generality always be the right one? Given this understanding of intentional similitude, how are we to explain, in particular, that our intellect reaches specific concepts at one sitting? And how can our comparison with the objects that have the relevant shape. This comparison, I believe, brings us very close to Ockham’s point about the similitude 'by fitness' (secundum convenientiam), which he described as an intentional similitude in the sense put forward in the previous section.

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3.1 Absolute specific quality concepts

Let us start with the most specific qualitative concepts, like that of a precise colour, a specific brand of red, let's say - which, for the sake of csumodity, I will simply call 'redness'. It is normally caused in the mind by a direct encounter with some redness; yet in so far as it is a rednesses if - as Ockham calls it - a distinctive intellectual posture is adopted whenever the agent comes across a redness. This original act, according to the theory, leaves in the mind a derivative trace which is also an intellectual analog of all rednesses, which can be reactivated in the absence of any redness. This one concept is the intuitive act. It is also a posture of the intellect: this precise posture, namely, that it becomes able to apprehend in its bare purity and only if it has previously met with at least one redness, this concept can be said to be a similitude of all of them equally, and it will thus enable the agent to correctly re-identify new rednesses when they occur: the relevant equivalence relation between the represented things in this case is the co-specificity - or maximal essential similarity - of all rednesses among themselves. We thus reach the required result: the specific concept of redness is a similitude pertaining in the same way to all rednesses, and so anything that can be caused in the mind by a single encounter with some particular redness in optimal conditions. So far so good!

3.2 Specific concepts of substances

The case of substantial specific concepts, like 'horse' or 'nuthatch', is more delicate. The problem is that while qualities are immediately grasped in themselves according to Ockham, this is not so for accidents that individual substances are known to us, because the accidents are cognized directly and in themselves by our intellect, but not the substances. How, then, can an adequate general concept of a given species of substances be formed upon a single encounter? One thing is sure: we cannot expect, on such a doctrine, that the intellect which forms the concept of 'nuthatch', let's say, should ipso facto develop in so doing a deep understanding of the essences of nuthatches, of their internal structure or of the necessary conditions something must meet in order to be a nuthatch. Ockham is certainly not supposing that the mind is endowed with some sort of metaphysical X-ray which allows it to grasp the internal essence of a thing, on the basis of a single perceptual encounter. In so far as the general concept of nuthatch is a similitude, therefore, it cannot be a similitude of the internal structure of the nuthatch, since this structure is not disclosed at first sight to the human mind. On the other hand, substantial concepts are not inferred for Ockham; they are not constructed as complex descriptions or nominal definitions of the form: 'whatever is the substratum for such or such perceptible accidents'. Ockham makes it clear that we have, in his view, simple intuitive and abstractive cognitions of substances as well as of accidents. His whole epistemological theory could not fly without this assumption. The acknowledged impossibility of grasping a substance in itself is not seen by him as a complete impossibility of instanting the substance: even if through the accidents, we do have simple intuitions of substances, and simple substance concepts are acquired on this basis.

The theory of the cognition of substances Ockham supposes is thus approximately the one John Buridan will make explicit a few years later. Everybody admits, Buridan says, that the cognition of accidents is necessary in the world for the cognition of substances. It should not be concluded from this, however, that substances are not apprehended by the senses, the imagination or the intellect. The substance is grasped, indeed, but 'confusedly'; along with its accidents: 'it is by the sense and, through the sense, to the intellect, which can extract it'. When I perceive a nuthatch, according to this theory, what I grasp - both by the sense and the intellect - is not merely a certain shape and a certain arrangement of colours, but the substance which is so shaped and coloured. This substance, admittedly, is not apprehended in its bare purity (ipso as). Ockham says, but it is nevertheless present redness will do as its trigger, this concept can be said to be a similitude of all of them equally, and it would thus enable the agent to correctly re-identify new rednesses when they occur: the relevant equivalence relation between the represented things in this case is the co-specificity - or maximal essential similarity - of all rednesses among themselves. We thus reach the required result: the specific concept of redness is a similitude pertaining in the same way to all rednesses, and so anything that can be caused in the mind by a single encounter with some particular redness in optimal conditions. So far so good!
other nuthatch. The difference with simple qualitative concepts is that the ones we are now considering pertain not to the qualities as such, but to the things that have these qualities. It must be supposed, accordingly, that our intellect is innately capable of (at least) two sorts of different assimilating powers, one that is activated when it attends to one or more qualities, and the other one when it reacts to the things that have these qualities. Those must be something like a priori categories of our intellect. This is not said by Ockham in so many words, of course, but I do not see how he could avoid supposing it. Or how we could, for that matter.

The idea, in short, is that the intellect sometimes is in substance-mode. When it is, it assimilates inanimate substances via the perceptual scheme which typically corresponds to this specific kind of substances. This amounts to say that the intellect then forms an abstract similitude of a given inanimate substance with respect to all its perceptible features, which present the same typical perceptual features. Does this mechanism yield the right result? Namely the formation of simple substance concepts corresponding to natural kinds, a concept of 'horse', for instance, if we suppose, as Ockham did, that each natural species distinctively displays certain typical perceptual features. This is not as naive as it might seem. Ockham takes it to be a commonly accepted principle that if two individuals are of the same species, they will always produce highly similar effects on equivalently disposed patients.

It follows from this that two individuals which belong to the same species specialissima should produce, in normal circumstances, highly similar effects on human observers. And we can work here, moreover, with a very wide notion of perceptual feature, including, for example, not only shape and colour, but also the typical sounds emitted by the object, its perfume, its ways of moving, and so on. Perception, in this context, can even be extended to empathy, that is, the non-inferential apprehension of the perceived object as being itself a subject for sensations, emotions, and the like. The concept of a nuthatch, for example, will be the intellectual act that results from the typical posture the mind takes when it apprehends, in optimal conditions, a moving and tweeting nuthatch, and apprehends it as a living being.

It could still happen, of course, that the correlation fails in special cases between essence and outward appearance; for instance, an imitation of a nuthatch with respect to all its perceptible features, which would really be a teleguided robot, can't we? Ockham does not discuss such cases, but his theory of substance concepts cannot rule them out and should therefore take them into account. What he has to say, obviously, is that the nuthatch-robot does not belong to the extension of our simple concept of 'nuthatch', the one we are supposed to have naturally acquired on the basis of our previous encounters with a real nuthatch. And what this has far-reaching consequences. It means that although intentional similitude is what opens the way for generality in representation, it does not adequately determine by itself the extension of our simple substance concepts. The extension of such concepts in Ockham's framework should contain only individuals which really belong to the same species as one another, individuals, that is, which have basically equivalent causal powers. This is how substance concepts can play their cognitive role in our mental apparatus: the falling of an individual x under the concept of 'nuthatch' is supposed in effect to warrant the conclusion that x has all the causal powers a nuthatch normally has. Intentional similitude, on the other hand, is what helps us recognize, on the spot so to say, whether something falls or not under a given concept. What the case of the nuthatch-robot reveals is that intentional similitude can in special conditions be misleading. And if it can be misleading, then it cannot constitute the sole criterion for what belongs in the extension or not. Other and more fundamental function of substantial concepts must be at play here: the correct guiding of expectations with respect to the causal powers of things.

The notion of intentional similitude, then, turns out to be basically the same for substance concepts as we found it to be for qualitative concepts, but its semantical role is now quite different. To say that a substance concept is a similitude of what represents is merely to say that it is a typical posture the intellect becomes able to take on in virtue of having been in touch - through the senses - with individuals of a certain sort. And the relevant equivalence relation between the represented things is, just as in the case of qualitative concepts, maximal similarity (or cosepecificity). The great difference is this: the cosepecificity in question is now between substances rather than qualities. And since substances are not cognized in se but only through their accidents (at least in this world), the intentional similitude relation cannot determine alone the extension of substance concepts as it does for qualitative concepts. Intentional similitude still comes out as an indispensable feature of simple substance concepts, and it should provide in normal situations a quick and reliable recognitional device for categorizing substances. But since the causal powers of a substance are not all immediately apparent in perception, a discrepancy remains possible in principle, given the basic function of substance concepts, between the individuals they resemble and those they signify.

3.3 Simple connotative concept

Although there might be a few exceptions, simple connotative concepts it is regard are more likely to be like qualitative concepts than like substance concepts: in most cases, intentional similitude will decisively determine their correctness of application. Let me explain. What characterizes simple connotative concepts, as was seen in chapter 6, is that they are naturally acquired general representations of ordered n-tuples. They can be considered, in other terms, as mental models for ordered groups of entities out there in the world. Thus understood, they are similar to these ordered groups, in the by now familiar sense that they correspond to the typical postures the intellect becomes able to adopt as a result of having been in intimate contact with such ordered n-tuples in the way described in chapter 6. Different sorts of cases can occur according to whether the primary and secondary significates of these primitive connotative concepts are substances or qualities, but their correct application, most of the time, will solely depend upon the perceptual features of the relevant situations, as we can check by successively reviewing the main possibilities.

Case 1: Both the primary and secondary significates are qualities

This is exemplified, for instance, by the situation Ockham mentions in Quodlibeta IV, 17, of someone who simultaneously grasps two whitenesses and forms as a result...
a certain concept of similarity. The relevant connotative concept of similarity in this example does not connect the substances that have these whitenesses (as the standard Aristotelian notion of similarity would do), but the whitenesses themselves, and it clearly must be experimentally true as the basic experience just as the basic experience of what substance intrinsically is. It would correctly apply to every couple of singular colours which are spontaneously recognized as similar in optimal conditions of observation. Unless - of course - as the case may be, this example does not connect the substances that have these whitenesses (as the Ockham claims, the mind, surely, can form from this the relational concept of 'being essentially similar', just as it can form the concept of 'being qualitatively similar' from having met with two white things (or two whitenesses). If so, such a concept will be, according to the tack of identification of what this substance intrinsically - or essentially - is. It is sufficient that our mind be able to intuitively grasp a certain quality - a whiteness in this example - as being inherent to a substance, which is a capacity Ockham explicitly acknowledges. As was explained in the previous chapter, an absolute substance concept will normally be formed on the same occasion (for example, the concept of how such general concepts could still plausibly be seen as similitudes of what they spontaneously applied to both Socrates and Plato, as Ockham claims, the mind, surely, can form from this the relational concept of 'being essentially similar', just as it can form the concept of 'being qualitatively similar' from having met with two white things (or two whitenesses). If so, such a concept will be, according to the tack of identification of what this substance intrinsically - or essentially - is. It is sufficient that our mind be able to intuitively grasp a certain quality - a whiteness in this example - as being inherent to a substance, which is a capacity Ockham explicitly acknowledges. As was explained in the previous chapter, an absolute substance concept will normally be formed on the same occasion (for example, the concept of 'white' as it is in that of 'whiteness'.

Case 2: The primary significates are substances while the secondary significates are qualities (or vice versa)

A paradigmatic example of this is the connotative concept 'white', which primarily signifies certain substances - those material bodies that have a whiteness - and secondarily signifies, or connotes, certain qualities the whitenesses themselves. Although substances are involved here, the recognizability of such concepts seems as strong as it was in the previous case if the conditions of observations are optimal. For the recognition of a certain substance as being white in no way depends upon a certain quality of that substance intrinsically - or essentially - is. It is sufficient that our mind be able to intuitively grasp a certain quality - a whiteness in this example - as being inherent to a substance, which is a capacity Ockham explicitly acknowledges. As was explained in the previous chapter, an absolute substance concept will normally be formed on the same occasion (for example, the concept of 'white' as it is in that of 'whiteness'.

Case 3: Both the primary and secondary significates are substances

Two situations must be distinguished here, and they yield different results with respect to the role of intentional similitude.

3a) The first one occurs when a simple connotative concept applies to certain couples - or n-tuples - of substances in virtue of certain observable qualities that they have. 'Being taller' would be a good example: both its primary and secondary significates are substances (respectively: the taller bodies, and the shorter ones), but they both are so signified by it in virtue of their external observable features. The empirical application of such a concept to a given couple of substances, then, does not depend, any more than in cases 1 and 2, upon the correct identification of their essences.

3b) The other situation is when the connotative concept applies to certain couples - or n-tuples - of substances in virtue of what they intrinsically are. An example here would be the relational concept 'being essentially similar' in so far as it applies to substances. Such a concept, presumably must be among those simple intellectual representations the human mind is naturally able to form, according to Ockham. If a concept like 'man', for instance, can naturally be abstracted and
represent, especially as they get more and more general. How, for example, can my concept of ‘animal’ equally resemble a nuthatch and an elephant, but not a pine tree or a chariot? The notion of intentional similitude reached in section 2 above now allows us to provide a satisfactory answer to these Crathornian worries. A generic concept simply is this characteristic posture that the intellect becomes able to adopt after having met with several individuals of different species. The Ockhamistic conception, here, is that after a nuthatch and a chicken, I must have acquired a new mental capacity, that of adopting a certain determinate intellectual posture that can be reactivated by certain individuals (small birds, let’s say), but not others. Similarity of every sort is possible in this way, exactly in the same sense that the original concept of ‘animal’ was supposed to help us classify things according to their essential causal powers - substance concepts, namely - a discrepancy is bound to be possible in principle between the grouping dispositions which are associated with these concepts and what their contribution is supposed to be to the truth-conditions of our mental propositions (of our thinking, for example, that this thing in the water is a trout). In so far as some of our naturally acquired concepts are supposed to help us classify things according to their essential causal powers - substance concepts, namely - a discrepancy is bound to be possible in principle between the grouping dispositions which are associated with these concepts and what their contribution is supposed to be to the truth-conditions of our beliefs and expectations, between, in other words, similitude and signification. Fortunately, however, the outward appearance of things normally is, under good conditions of observation, a reliable indicator of what they intrinsically are and of what causal powers they have. A nuthatch normally looks like a nuthatch, and what looks like a nuthatch normally is a nuthatch. Ockham, on the whole, is quite justified in thinking that our simple concept of ‘man’ normally allows us to correctly judge whether something is a man or not.

If true of specific concepts such as ‘nuthatch’ or ‘man’, this probably holds too - although to a lesser extent, admittedly - of our naturally acquired generic concepts of substances such as ‘bird’ or ‘animal’. Four. Two problems about absolute concepts

Our proposed elucidation of intentional similitude now puts us in a favourable position to discuss two subtle difficulties that have been recently raised against Ockham’s nominalistic theory of absolute concepts, one by Gyula Klima (section 4.1), and the other by Deborah Brown (section 4.2). They don’t seem to have much to do with each other at first sight: Klima’s puzzle pertains to the simplicity of absolute concepts, while Brown’s concerns the purported absence of synonymy in Ockham’s mental language. Yet a correct understanding of intentional similitude and its role turns out to be decisive in both cases for their solution.

4.1 Klima’s objection

Gyula Klima is currently one of the most penetrating analysts of the philosophical import of late medieval semantics and ontology. In a recent discussion on his
website, he has claimed that Ockham’s special brand of nominalism must fail, because, precisely, of how it copes with absolute concepts. There is a crucial requirement, Klima holds, that should be satisfied by any sound theory of conceptual representation, but that Ockham’s semantic theory of absolute concepts fails to satisfy. The requirement in question is the following: four concepts should represent particulars belonging to the same kind in that respect in which these particulars should be similar in order to belong to the same kind. Otherwise a concept cannot represent all individuals of the same kind on the basis of acquaintance only with a limited number of them. Since this requirement is made plain, it is obvious that Ockham’s account of absolute concepts cannot meet it since absolute concepts, for him, as Klima points out, do not represent their objects ‘in respect of something’; they simply have them in their extension, period.

Now, Klima is certainly right on this last point, as our own discussion of intentional similitude confirms. Absolute concepts are indeed similitudes of their objects for Ockham, but they cannot be in respect of the properties according to which they are similitudes of them. This is especially clear in the case of simple substance concepts such as ‘nuthatch’ or ‘man’. In so far as these intellectual representations are similitudes of nuthatches or men, this must be as we have explained, on the basis of the perceptible or phenomenal features of the represented objects. Yet a substance concept of this sort is not a mental sign of these features, but only of the display them. It is not analysable as a complex sequence of simpler – qualitative or substantial – concepts, and it does not commute in any way the perceptible qualities it virtue of which it resembles its objects. Being an absolute concept in Ockham’s sense, its proper semantical import is restricted to its extension. And this extension contains only singular substances, each one of which being a member of it to the same degree as any other. Intentional similitude opens up the way to generality in representation, but the internal structure of the representation, in so far as intentional similitude requires such a structure, must not be identified with the posture of a concept. This, indeed, is the very reason why a discrepancy becomes possible in principle in the case of substance concepts between what they resemble and what they signify. Although Ockham’s absolute concepts might well be a complex psychological state – how, otherwise, could be a similitude of its objects with respect to their perceptual features? – yet it is to be counted as an absolute concept. In this case, as we have seen, the absolute concept must signify them in this very respect. But this is a notion Ockham does not understand, so far as he is disposed to recognize as falling under a given absolute concept. Falling or not under a given absolute concept is a matter of truly being of the same kind as the encountered one, whether we are easily able to recognize them or not.

It is not analysable, it is not an implausible one. It seems reasonable to suppose that our intellect is so constructed – either by God or by evolution – as to form spontaneously, upon any single encounter, a general mental sign which is true of all of them. This concept signifies in Ockham’s sense, its proper semantical import is restricted to its extension. And this extension contains only singular substances, each one of which being a member of it to the same degree as any other.

50 Intentional similitude opens up the way to generality in representation, but the internal structure of the representation, in so far as intentional similitude requires such a structure, must not be identified with the posture of a concept. This, indeed, is the very reason why a discrepancy becomes possible in principle in the case of substance concepts between what they resemble and what they signify. Although Ockham’s absolute concepts might well be a complex psychological state – how, otherwise, could be a similitude of its objects with respect to their perceptual features? – yet it is to be counted as an absolute concept. In this case, as we have seen, the absolute concept must signify them in this very respect. But this is a notion Ockham does not understand, so far as he is disposed to recognize as falling under a given absolute concept. Falling or not under a given absolute concept is a matter of truly being of the same kind as the encountered one, whether we are easily able to recognize them or not.

Since being of the same kind involves having highly equivalent causal powers, such a mental device should turn out to be the most useful in the long run for guiding expectations, and one especially interesting brand of them in particular: conditional expectations. Once I have acquired the specific concept of a nuthatch, for example, I know that all the significates of this concept will essentially have the same basic causal powers as the original sample do, even if these causal powers are not yet known to me. What I know, in other terms, is that if one of my salient samples of nuthatch turns out to essentially have a given causal power, all the other significates of this mental concept will have it as well, precisely because ‘all agents of the same specific kind [species specialissima] are productive of effects of the same sort’. This is how Ockham can admit that true generalizations can sometimes be reached on the basis of a single experiment. Since absolute concepts are supposed, in addition, to come along with certain recognitional capacities (in virtue of intentional similitude), the ability to produce such true generalizations, and to act on them, is undoubtedly an invaluable advantage, even if, as we have acknowledged, the recognitional aptitude should fail in exceptional cases (think of the nuthatch-robot again!).
The situation, admittedly, is somewhat more complicated for generic concepts, and Ockham does not give much indication as to what concepts exactly we are expected to acquire from having met with a nuthatch and a chickadee, let's say, or a nuthatch and a duck, or a nuthatch, a duck and a trout, and so on. But the problem, basically, should be the same. What we are to suppose is that at every level of generality, the significates of an absolute concept are uniquely determined by some degree or other of essential similarity among them, according to what function exactly the concept in question is naturally designed to fulfill within mental propositions, given the way our minds are functionally organized. The main point is that whether they are specific or generic, absolute concepts do not have to signify their objects in respect of anything. Klima's requirement, then, is simply bypassed.

4.2 Brown's puzzle

In a stimulating paper published in 1996, Deborah Brown has claimed to identify a tension within Ockham's theory of absolute concepts which, she says, threatens the internal coherence of his whole philosophical project. The problem is that absolute concepts, in Ockham's view, are acquired in a purely passive way, through a process described in strictly causal terms. If so, there seems to be no reason why someone might not independently -- and unknowingly -- acquire two distinct absolute concepts for the same individual: 'One would think that a person could easily acquire the concept 'Marcus's' the concept of Marcus's, and for each of these concepts he would have to have had a different, distinct encounter with Marcus.'

Such a possibility, Brown says, can be generalized to any absolute term whatsoever, and it suntly conflicts with two principles of Ockham's theory of mental language: (i) that concepts are individuated only by their signification, and (ii) that there is no synonymy in mental language. What is questioned here, ultimately, is the compatibility of Ockham's causal account of the implementation of absolute concepts with the fundamental semantical role he attributes them.

Before getting to the heart of the matter about this difficulty, we need to clear up a couple of preliminary points. First, Brown's Cicero example is ill-chosen. Ockham, as we have seen, is explicit that the human mind cannot form simple proper singular concepts, precisely because concepts are intentional similitudes. The singular 'Marcus's concept formed by the agent upon her first encounter with Cicero, consequently, will not be an absolute concept (no complex concept can be absolute in Ockham's theory), but a complex connotative one, and so will be the singular 'Tullius' concept formed on the second visit to the Forum. The resulting coextensive of two distinct complex connotative concepts is no problem for Ockham: since these concepts differ as to what they connote -- different circumstances of encountering, for example -- they will not wholly signify the same things under the same modes, and will not, therefore, be synonymous.

Secondly, it is not the case that Ockham's concepts are to be individuated solely by their semantical properties, as Brown assumes. As I have argued in chapter 3, two distinct intentional acts are to be individuated by the concept, in Ockham's doctrine, only if they both belong to a single determinate intuitive encounter. Concepts, in this view, are individuated by their causal history as well as by their semantical properties. It follows that if an agent should unknowingly originate on different occasions two independent causal chains of absolute conceptual acts with the same extension, those would be counted as two different concepts in the Ockhamistic doctrine. These remarks, however, do not suffice to solve Brown's puzzle. They merely help to locate it more precisely. The problem arises only if it should be possible for a human agent to form two distinct, but coextensive, general absolute concepts. And this, if possible, would not conflict with Ockham's theses, but only undermine, namely that there are no synonyms among the simple concepts of a given agent. The question, then, is the following: should it be admitted as possible, given Ockham's causal theory of concept acquisition, that an agent unknowingly acquires two distinct absolute concepts of exactly the same objects?

If what we have said earlier about a possible discrepancy between what a substance concept signifies and what it resembles, is correct, then the answer to this question is: yes, it is possible in principle for an agent to form two distinct and coextensive absolute substance concepts, but this, from Ockham's point of view, must be quite exceptional. The normal situation, Ockham thought, is that in good conditions of observation, a member of a given species can be recognized as such on the basis of its outward appearance. The case of general substance concepts in this regard is very different from the Cicero example Brown started with. Even if Brown's agent had not recognized Cicero on her second visit to the Forum (because, let's say, he had grown a beard in the meanwhile, and lost all his hair), she would normally have recognized him as a human being without any problem if she was close enough and the light was good. It might be very difficult to say whether this nuthatch in front of me is the same individual I saw yesterday, but it would normally be much easier, if the bird is close enough and the light is good, to identify it as being of the same species.

The point, here, is that what the agent acquires when she first meets with a nuthatch, let's say, is a capacity to adopt a certain intellectual posture. This posture, which is said by Ockham to be a similitude of nuthatches, will be reactualized from then on in two sorts of circumstances: it will occur, even in the absence of any nuthatch, as a component of certain complex propositional acts of the agent, the truth-conditions of which, thus, will have to do with nuthatches; it will be reactivated, on the other hand, on any new encounter with a nuthatch (under favourable conditions of observation), thus bringing about in the agent's mind the recognitional judgement that this is a nuthatch. Absolute substance concepts can be identified with such causal chains of intellectual acts and habitus. If everything is normal, then, once an agent has acquired a certain absolute concept in the guise of a determinate causal chain of this sort, she will not independently acquire a new one with the same extension. A simple concept being an intentional similitude normally associated with a reliable recognitional capacity, the formation of two distinct but synonymous absolute concepts must be unusual according to this doctrine.

Even though unusual, however, it is true that it cannot be ruled out. Since we have admitted the possibility in principle of a discrepancy between signification and similitude in substance concepts, we should also admit the possibility that the recognitional aptitude fails, even under favourable conditions of observation, if the world does not collaborate. Individuals of a given species might sometimes
misleadingly look different, and individuals of two different species might misleadingly look alike (like water and Xe in Hilary Putnam's famous tale of the Twin Earth). Brown's consequence, then, reappears, albeit in a milder form: even if the case is exceptional, a human agent might still end up with two distinct but synonymous concepts.

This does not constitute, however, such a deep threat to the consistency of Ockham's doctrine as Brown imagines it to. The non-synonymy thesis is concerning simple concepts, although characteristic, is not nearly as central to Ockham's system as it has been taken to be. It is true that the Vererabilis Inceptor reaffirms the principle on several occasions (e.g., Summa Logicae I, 3, and Quaestiones Quodlibeta V, qu. 29) to the grammatical categories that have to be postulated in mental language. The important principle at work in this context is the positive one: any distinction among grammatical categories which is needed for the sake of mental language must be in spoken or written terms. The negative converse principle, according to which the grammatical distinctions which are not semantically relevant are not to be found in mental language, is much less strongly asserted, and obviously considered less important. About the distinction between participles and verbs, for example, Ockham is content to conclude that 'there does not seem to be any great necessity to postulate such a distinction among mental terms,' occurring in virtually all cases as a mere comparison, usually introduced by 'sicut': what Gckham means to say in all these cases is that just as nature does not collaborate, particularly in the case of absolute substance concepts. There is no need to postulate a multiplicity of synonymous concepts in mental language, there is no reason either to postulate the presence in it of those general grammatical distinctions that have no semantical relevance. I do not see any great problem, consequently, in adopting a relaxed attitude towards Ockham's non-synonymy thesis about simple concepts, and seeing it merely as what he took to be the normal situation. That exceptions should be admitted as possible in exceptional cases does not seem to be deeply troublesome.

There are two reasons, it seems to me, why some commentators—Brown among others—have thought otherwise, and have taken the non-synonymy thesis to be a strong and central claim in Ockham's thought. Both of which, I contend, are wrongheaded. First, it has been thought that the very notion of synonymy in Ockham analytically requires that synonymous terms be subordinated to the same concept. But this is not so. Ockham's preferred sense of synonymy is what he calls the broad sense, according to which two terms are synonymous if and only if whatever is signified by one of them under a certain mode is also signified by the other under the same mode. It follows, of course, that if two conventional terms are subordinated to the same concept, they become *ipso facto* synonymous. But such a common subordination is by no means analytically required by Ockham's definition of synonymy. For one thing, two different speakers might end up with synonymous spoken terms if each one of them has subordinated its chosen word to one of his own concepts, and if the two concepts involved—although numerically distinct, being, *ex hypothesi*, qualities of different minds—do happen to signify the same things under the same modes. These two concepts, moreover, will clearly be synonymous to each other in this (quite common) case even though none of them is subordinated to anything. That a similar situation accidentally occurs within the mind of a single speaker can certainly not be analytically ruled out in Ockham's vocabulary.

The second consideration that brought many people to think of the non-synonymy thesis as being of importance in Ockham's system, is somewhat deeper. It is that mental language, they think, must be a logically ideal language if it is to fulfill the role Ockham expects from it of accounting for the semantics of spoken or written languages. What we have here is a methodological principle of parsimony, the import of which, when it does apply, is the weak conclusion that it is *not necessary* to postulate a certain distinction in mental language, and not the strong conclusion that it is imperatively *not* to postulate it.

Ockham's application of these principles, moreover, has to do in effect only with the admission or rejection of *species* in mental language. The corresponding thesis about the rejection of simple synonymous concepts, while clearly asserted, occurs in virtually all cases as a mere comparison, usually introduced by 'sicut': what Gckham means to say in all these cases is that just as nature does not collaborate, particularly in the case of absolute substance concepts. That (b) should be called for by considerations about the recognitional role of intentional similitude rather than by purely semantical reasons is quite all right given the intent of the theory. There is no serious threat here to its internal coherence.

Notes

1. The idea comes from chapter 1 of Aristotle's *Peripatetici*, Bk. 1. 'Similitudo' was the Latin word used by Boethius in the translation of this passage.


3. Ibid., p. 132.


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8. Ord. I, dist. 2, q. 8, OTH II, p. 721: 'intellectus intendit aliquem rem extra animam fingit similitudinem rem in mente, ita quod si habet virium productivum sic habet virium fictivum, talem etiam distinctam a priori producet extra ... Ei hell [fictam] poteat vocale universale, quotiam est exempla et indifferentem respecionem omnia singularia extra, et propter istam similitudinem in esse objectivo potest supponere pro rebus extra ...' (italics are mine). The same point is made, for example, in Ord. I, dist. 2, q. 8, OTH II, p. 229; Ord. I, dist. 3, q. 3, OTH II, p. 428; and Ord. I, dist. 13, OTH III, pp. 410-20.


10. Quodl. IV, q. 15, OTH IX, p. 474: 'ideo dico quod tam intentio prima quam secunda est verum actus intelligendi, qua per actum potest salvare quodquidam fictum, sic quod actus est simulatio objecti, potest significare et supponere pro rebus extra, potest esse substantiam et praedicatam genus, species, etiam fictam' (trans!. Fredrods and Kelley 1991, p. 390; italics are mine).

11. See above chap. 2, sect. 3, for a detailed discussion of this argument.

12. Quaest. in Phys., q. 2, OPA VI, p. 399: 'Conceptus est simulatio rei externae.'


15. See above chap. 1, n. 46.

16. Exp. in Perih., Proemium, 10, OTH II, pp. 370-71: 'Ad aliud potest dico quod tale fictum seu simuliam distinguere in re sequam quaequam rei externae, quae sibi externa vel simili sit rei externae; tamen in re interioritate magis aliqua simulatio rei externae in se sequae possit eunere sicque potest finxi, esse vere similiter rei externae. Et propter istam rationem potest supponere quae illa illa in quod intellectus possit intellegere vel aliqua universalitatem. Superficius igitur potest sitare simulium vel fictum' (italics are mine).

17. Quodl. V, q. 7, OTH IX, p. 506: 'Querto dico quod intellectus nostri de nulla creatura potest habere aliquam conceptum simplicem proprium sine cognitione creaturae nec esset verum similiter rei externae. Et propter istam rationem magis potest supponere una illa illa in quod intellectus possit intellegere vel aliqua universalitatem. Superficius igitur potest sitare simulium vel fictum' (italics are mine).

18. Quodl. I, q. 13, OTH IX, p. 74: 'Terto dico quod cognoctio prima abstractiva primitivi generandi et singularitatis non est cognitio propria singulat leg est sed est cognitionis communis aliquid, immo ... assumpsit prae, nullia cognitio abstractiva propria simulatio abstracsi simplicis et singularis est vita simulatio abstracsi. Sed tale idolum non ponitur propter aliud nisi ut supponat pro re vel ex eo substantiam. ... Assumpsit prae sine cognitio abstractiva primitivi universali eorum de simulatio abstracsi.'

19. Ord. I, Pro!. q. 1, OTH I, p. 23: 'Sed uestera verum est quod intellectus potest intellegere vel aliqua universalitatem vel aliqua universalitatem. I. Quodl. I, q. 13, OTH IX, p. 74: 'Terto dico quod cognoctio prima abstractiva primitivi generandi et singularitatis non est cognitio propria singulat leg est sed est cognitionis communis aliquid, immo ... assumpsit prae, nullia cognitio abstractiva propria simulatio abstracsi simplicis et singularis est vita simulatio abstracsi. Sed tale idolum non ponitur propter aliud nisi ut supponat pro re vel ex eo substantiam. ... Assumpsit prae sine cognitio abstractiva primitivi universali eorum de simulatio abstracsi.'

20. Quodl. I, q. 13, OTH IX, p. 74: 'Terto dico quod cognoctio prima abstractiva primitivi generandi et singularitatis non est cognitio propria singulat leg est sed est cognitionis communis aliquid, immo ... assumpsit prae, nullia cognitio abstractiva propria simulatio abstracsi simplicis et singularis est vita simulatio abstracsi. Sed tale idolum non ponitur propter aliud nisi ut supponat pro re vel ex eo substantiam. ... Assumpsit prae sine cognitio abstractiva primitivi universali eorum de simulatio abstracsi.'
Note, however, that the often striking differences between males and females within a group can constitute good examples of this. Ockham could easily admit that these correspond to different - and non-synonymous - simple absolute concepts.

The standard presentation of the Twin Earth thought experiment is found in Putnam 1975a.

The seminal paper, here, was that of John Trentman (1970). Paul Spade, of course, has been the pre-eminent defender of this approach in the last decades.
In addition to absolute and connotative concepts, the vocabulary of the language of thought, according to Ockham, also contains syncategorematic terms. These correspond for the most part to what we call today 'logical constants': quantifiers such as 'all', 'every', 'no', 'some', 'neither', etc.; connectors such as 'if', 'and', 'or', 'because', 'when', 'where', 'unless', and so on; prepositions such as 'except' or 'as'; some adverbs such as 'only', 'per se', etc.; negations of course, and even the copula. Ockham's most famous thesis about this group of terms is that, in the strict sense of 'to signify', they signify nothing. There are no special objects in the world to which 'all', 'and', 'no' or 'is' could be said to refer:

None of these expressions has a definite and determinate signification, nor does any of them signify anything distinct from what is signified by categorematic terms. The number system provides a parallel here: 'Zero', taken by itself, does not signify anything, but when combined with some other numeral it makes that numeral signify something new. Likewise, a syncategorematic term does not, properly speaking, signify anything; however, when it is combined with a categorematic expression it makes that categorematic expression signify something or suppose for something in a determinate manner, or it performs some other function with regard to the relevant categorematic term.

Ockham's position on syncategoremata thus comes down to what Wittgenstein calls his 'fundamental idea' in the *Tractatus*: the "logical constants" are not representatives.

This thesis, however, raises a problem for Ockham's theory of mental language. While simple categorematic terms, whether absolute or connotative, are supposed to be implemented in the mind as a result of an abstraction process rooted in direct encounters with concrete individuals, no such explanation is available for syncategorematic concepts: since they do not signify or represent anything, they cannot be acquired on the basis of particular encounters; there simply is no syncategorematic object in the world for the abstraction process to get started with. Ockham saw the problem very early and gave it a first answer in the *Ordinatio* from the point of view of the fictum-theory of concepts. Very briefly expounded, this answer has puzzled recent commentators. Yet it is quite interesting philosophically, and I will first reconstruct it in some detail here (section 1). It will then be argued that, even though he is not explicit about it, logical concepts can only be innate in Ockham's later actus-theory (section 2). The status of some apparently non-logical syncategorematic prepositions and verbs such as 'in', 'of', 'before', 'to have', 'to inhere in', and so on, will finally be briefly discussed (section 3).
I. The earlier theory: logical words internalized

The question of the origin of syncategorematic concepts in the mind is raised in the *Ordinatio* along with that of connotative and negative terms as an objection to the fictum-theory.

The fourth problem has to do with syncategorematic, connotative, and negative concepts: where can they be taken or abstracted from? Not if it is precisely from things, then it is not seen how they can be distinguished from other concepts. But it is clear that there are such concepts, since things can correspond a similar one in the mind, and therefore to this proposition ‘every man is an animal’ and this one ‘some man is an animal’, there correspond distinct propositions in the mind; something therefore corresponds to the quantifier ‘every’ and ‘some’. Where can they come from?

Ockham’s reply holds in a single paragraph, which is well worth a detailed examination. Here it is, almost in its entirety (the letters between brackets are added by me to facilitate further references):

[a] To the fourth problem, I say that syncategorematic, connotative and negative concepts are not concepts abstracted from things and capable of being so, but are quite in the nature of a support for things or to signify them in some special way with respect to other concepts. [b] And for this reason I say that there are no syncategorematic, or connotative, or negative concepts, except by mere institution, as with spoken words, and nothing more; but if it should be possible to abstract something from words, and this is what happens in fact either actually or generally, strictly speaking, to the spoken word ‘homo’ there applies such grammatical modes as the singular, the nominative case, the masculine gender, and so on, while to the spoken word ‘hominem’ there applies other grammatical modes. Similarly, the spoken word ‘homo’ signifies a thing, denominatively and essentially not to apply to the spoken word ‘hominem’, which signifies only when taken with some other term. And the same holds for the spoken word ‘suis’ and for words such as ‘per se’ and ‘in quantum’, ‘in quantum’, ‘et’ and other such syncategorematic terms. [d] From words which thus signify, then, the intellect abstracts something? The key to a sound understanding of Ockham’s position here is to remember that he is exclusively adopting in this passage the standpoint of the fictum-theory.

This is a complex passage, undoubtedly, which, I believe, has not yet been satisfactorily explained in the literature. Having said a word in a previous chapter about the treatment of connotative concepts in it, I will now concentrate on the doctrine it proposes for syncategoremata.

What has surprised the commentators about this doctrine is the idea that mental syncategorematic terms could be derived from the corresponding spoken units. Calvin Normore, for one, sees this as an ‘astonishing view’ for Ockham to have held: ‘since spoken language is arbitrary (ad piacitum)’, he writes, ‘it would make hash of the idea that mental language is natural’. And Marilyn Adams expresses a similar worry: ‘This proposal makes the syncategorematic force that binds terms into the subject and predicate position of a proposition derivative from that of conventional language.’ To put it in a more general way: all logical operators and connectors – including the copula – would, apparently, be derived from external language, without which, consequently, thought would be devoid of all logical or grammatical structure. Logical structure would be essentially conventional. Which is indeed an ‘astonishing’ consequence for a fourteenth-century Aristotelian thinker!

And Ockham, in addition, would not even have felt the need to explain himself about this. There is obviously something wrong here. We must look at the text more closely.

The theory presented there comes down to two theses:

1. There are no natural syncategorematic concepts.
2. There are syncategorematic concepts, nevertheless, but by ‘institution’ only.

Let us consider these two points in turn.

Thesis (1), to begin with, cannot mean, as was sometimes believed, that the human mind is naturally incapable of logical operations. This would be radically inconsistent with Ockham’s acceptance of both the Aristotelian and the Augustinian frameworks. And it would be incompatible with Ockham’s earlier philosophy as well as with his later theory of concepts. Human thought, in his view, can certainly combine a subject and a predicate without the help of spoken language: it can form universal propositions as well as particular ones, negative propositions as well as affirmative ones, conjunctions as well as conditionals, and so on. What thesis (1) asserts, instead, is this: such logical operations do not generate special intelligible objects as categoric concepts are supposed to be in the fictum-theory. How could they, since syncategoremata represent nothing, while concepts, according to the fictum-theory, have existence within the mind in so far only as they represent something? The key to a sound understanding of Ockham’s position here is to remember that he is exclusively adopting in this passage the standpoint of the fictum-theory. Saying that there are no natural syncategorematic concepts, in this context, amounts to saying that there are no such intelligible ficta. It does not follow from this that the intellect is incapable of logical operations without the help of conventional language, but only that such operations, when they occur, are not intelligible objects before the mind, as concepts are supposed to be. They are the intellectual handling of ideal objects, rather than special objects themselves. They are what the mind does rather than what it contemplates.

An important consequence of thesis (1) thus understood is that it ruins the parallelism that is often expected from a theory of mental language between mental and spoken or written propositions. While the latter are linear sequences of discrete
units, some of which are categorematic and some syncategorematic, mental propositions, in the view we are presently considering, are operations accomplished by the mind upon the sole categorematic concepts. The non-linear structure of mental propositions, in the view we are presently considering, are operations accomplished by the mind upon the sole categorematic concepts. The written sentence 'every horse is mortal', for example, has four successive components, while only two concepts would be involved in the corresponding thought: 'horse' and 'mortal', which the mind would be handling in a determinate way, performing on them a quantification operation on the one hand, and a predication on the other hand. In this a picture Ockham could have self-consciously subscribed to? My contention is that it is. Adam Wodeham, indeed, who was Ockham's pupil at one point and who usually showed exceptional familiarity with his thought, does adopt such a position to him, at least with respect to the copula (which he calls a 'comparative act').

Doubts about this attribution, however, have recently been raised by Elizabeth Karger, on the basis of two main arguments. The first of these heaves from the Reportatio where Ockham clearly treats the natural concept corresponding to the copula as a fictum endowed with mere objective being. He cannot, therefore, have identified the copula with the words. But the passage in question dates from a very early period in Ockham's career, when he was still accepting the existence of special relational entities of inherence; it corresponds to an even earlier stage in his thought than what is illustrated by the (favorable) discussion of the fictum-theory in distinction 2 of the Ordinatio, and one which he soon moved away from. It should not, therefore, be considered as relevant in the present context. Karger's second argument is that the identification of the natural copula with an act, which though 'direct' with respect to the terms of the sentence, which are not mental acts, would be 'reflective' with respect to its copula, is what a mental act would be an act which, though "direct" with respect to the terms of the sentence, which are not mental acts, would be "reflective" with respect to its copula, which is a mental act.

Wodeham saw that consequence and accepted it without qualms, as Karger acknowledges, but Ockham could not have, she contends, since it would entail that "every act of knowing is partly reflective", while Ockham admits that "there are unreceptive people who are unaware of their mental acts and who are nonetheless capable of knowledge". Karger's reference, here, is to Quodlibeta III, 8, where Ockham indeed distinguishes a reflective and an unreceptive one. The latter, however, which is the one that counts for Karger's argument, is not considered by Ockham as knowledge in the strong sense, as I indicated earlier. It is a simple judicative act, in the mind, which is equivalent in many respects to a complex propositional sequence, but which does not have in itself any component parts strictly speaking, it has no mental subject, no predicate, and a fictum-theory of no copula. Ockham, in the case of reflective act, is a mental proposition with a fictum directly relevant example for our present discussion is the concept of "the syncategorematic term 'if'": This concept is not itself, at this stage, a mental syncategorematic term, but a categorematic term, albeit a meta-categorematic one. But now comes the crucial move. Let us carefully read the rest of the sentence: ... and it [the intellect] imposes these concepts at signifying the same thing as these external words signify. Having formed the meta-categorematic concept of 'the syncategorematic term 'if'', the mind can, by decision - by 'institution', Ockham says - endow this very concept with the same semantical value as is conventionally possessed by the word it represents. This is a distinct operation. The meta-categorematic concept now receives the identity of representing the tokens of 'if' anymore (in the sense that the concept of 'horse', for example, represents horses), but that of occurring as a syncategorematic term itself within mental sentences. The mind can then form mental propositions which are strictly parallel with the corresponding spoken or written sentences. This is precisely the point of part [4] in our passage: 'And in the same way, it [the intellect] forms with
such concepts propositions which are similar to the spoken propositions and have similar properties.

What do we find, now, in the curious sentence \[f\]: 'And just as it can institute such concepts to signify in this way, it can abstract from things to signify in the same grammatical modes as spoken words do? It is that the mind could, if it so wanted, do the same with non-metalinguistic concepts (the concepts that are abstracted from things) I could decide to use my concept of horse as a genitive in some mental sequences, or maybe even as a syncategorematic term, why not? In Ockham's eyes, the advantage of preferring metalinguistic concepts for this kind of stipulative roles is that they are distinct among the concepts just as spoken words are, which is not the case for other concepts (sentence \[g\]).

The mind can thus form a special mental sequence for each spoken proposition, including those that make use of both the nominative and the genitive of the same word, for example, such as 'homo est hominis', or both the singular and the plural of the same word, such as 'homo est homines' (sentence \[h\]).

This, then, is the theory proposed to us in this somewhat surprising page of the Ordinatio. Let us recapitulate, for the sake of clarity, the various stages of the cognitive process it hypothesizes:

1. There is, first, the normal formation of simple categorematic concepts through abstraction, as described in the Prologue of the Ordinatio. According to the text we are now discussing, no syncategorematic concepts, or connotative or negative concepts are formed in this way.20

2. The mind can, from there, accomplish various operations upon the concepts so formed. It can combine them, in particular, through predication, negation, conjunction, and so on, and it can quantify over them. These operations are intellectual handlings of previously formed categorematic concepts, but they are not concepts themselves. Since it is not acquired on the basis of experience, the aptitude to accomplish such operations must be seen as innate within the framework of Ockhamism (more on this in the next section).

3. These intellectual operations can be conventionally expressed in spoken or written languages by special words, the function of which is to indicate to the hearer (or the reader) which logical operations they express, since they are used to refer to these operations by the speaker. These special words are the syncategorematic terms of spoken and written languages. Strictly speaking, they must not be said to signify the operations they express, since they are not used to refer to these operations or to connote them, but their presence can modify the signification, supposition or truth-conditions of the other linguistic units they are combined with, according to what logical operations they correspond to.

4. Like any other things in the world, linguistic items -- and in particular the syncategorematic words introduced at the previous step -- can be intuitively grasped by the intellect and thus bring about the formation of categorematic concepts capable of suppositing for them within mental propositions. Some of these metalinguistic concepts will be quite general, such as the concept of 'genitive' or 'masculine', and some will be much more narrowly circumscribed, such as the concept of 'the genitive of "homo"' or that of 'the feminine of "albus"'.

5. The metalinguistic concepts thus introduced can then be endowed, by the agent's decision, with a new semantical function, which reduplicates within the mind that of the spoken or written words which these concepts naturally represent. A kind of reverse subordination occurs, in virtue of which naturally implemented mental unit inherits, by a voluntary institution, the semantical properties of certain spoken or written expressions.21

6. The mind, finally, can use these reassigned concepts to construct mental sequences which are strictly parallel with spoken or written sentences, and in which logical operations -- like predication, negation, or quantification -- are objectivated into ad hoc units. Although Ockham does not say it in so many words, it is to be presumed that such mental objectivations facilitate reflection and reasoning by displaying, so to say, the logical processes before the mind.

Even independently of the fictum-theory with which Ockham associated it, this approach is quite remarkable. What it draws attention to is that the process of "thinking with words" -- often taken for granted in recent philosophy -- requires that some of our naturally acquired mental representations -- our representations of spoken or written items, more precisely -- should be semantically reassigned according to linguistic conventions. If so much is admitted, then how such a process works exactly, and how it bears upon the nature and scope of human thought, is certainly something that today's cognitive scientists should be interested in investigating.

2. Logical constants in the actus-theory

However that may be, Ockham eventually renounced this approach to mental syncategoremata as he moved away from the fictum-theory. It is true, as Beatrice Beretta remarks, that there seems to be a later allusive reappearance of it in the Quodlibeta,22 but one should probably suppose that the relevant passage -- in which Ockham introduces a wide sense for 'second intention' -- had originally been written at a time when he was still favouring the fictum-theory and that he failed to adjust this particular sentence as he integrated the whole surrounding development into the final version of the Quodlibeta.23 It is clear at any rate that the actus-theory of concepts does allow, in Ockham's own eyes, for natural mental syncategoremata. This is explicit in the very presentation of the actus-theory that he inserted in the revised version of distinction 2, question 8 of the Ordinatio, just a couple of pages after the discussion of syncategorematic terms that we have been scrutinizing in the previous section. In the new account, he says, ... just as among spoken words and conventional signs ... there are some that do not signify things, but merely consignify along with others, such as syncategorematic terms, such as 'genitive' or 'masculine'; and some are more narrowly circumscribed, such as the concept of 'the genitive of "homo"' or that of 'the feminine of "albus"'.

Concepts, in general, in this approach, are no more seen as ideal objects produced by mental acts and liable to logical operations. They are mental acts themselves --
operations, that is, or states of the mind – which do not require special intelligible correlates. The parallelism between mental and spoken or written propositions, therefore, is now more easily secured: mental propositions are concatenations of acts just as spoken and written propositions of words; it becomes quite natural to postulate a distinct conceptual act in the mind for each semantically relevant word in spoken or written discourse, whether categorematic or syncategorematic. The overall picture can thus be significantly simplified.

This is not to say that syncategorematic concepts are rows treated on a par with categorematic ones. They are still not granted a determinate significance of their own and their sematic role continues as subordinate. In the paradigmatic case of the copula. Ockham says in Quodlibeta VI, question 29 (written from the point of view of the actus-theory) is the ‘union of the extremes of a mental proposition’. It is not an intrinsically relational unit for all that, but ‘a quality of the mind, viz., an act of understanding’. And this concept, Ockham adds, ‘is really distinct from the subject and the predicate, which are also diverse acts of understanding’. Yet being an act of ‘union’, it seems clear that contrary to the categorematic terms, it cannot notionally be posited alone. And the same must be true of all other syncategora. One can, of course, think of a syncategorematic term without forming a proposition; the mind, then, has a second-order categorematic concept representing thesyncategorematic term – which is what Ockham calls a ‘second intention’ (intentis secundas); but it is not actually producing in this circumstance a truly syncategorematic mental act as such.

What is the difference, Paul Spade asks at one point, ‘between merely having the three concepts “Socrates”, “is”, and “mortal”, and having the mental proposition or judgment “Socrates is mortal”? Ockham’s answer to this, in the framework of the actus-theory, must be that there is no difference there, at least, as the three mental items are concatenated into a single whole. As we just saw, the syncategorematic term is described in Quodlibeta VI as the ‘union of the extremes’ of a mental proposition. The corresponding mental term, Ockham says, is not formed for all that; therefore, Adams correctly concludes, the mere copresence of the copula with two categorematic concepts is not sufficient for the corresponding mental proposition to be formed. What is relevant in the example is that the copula in question is not mentally concatenated with the categorematic concepts of “man” and “animal” into a single mental unit. As we saw in chapter 2, the mereologcal grouping or mental items into distinctive wholes must be a crucial process in Ockham’s account of how complex mental propositions are structured. “Hominem homo est animal” and “omnis animal est homo”, for example, differ from each other in having different parts: “omnis homo” occurs in the former and “omnis animal” in the latter. Adams is right that the mere copresence of certain units within the mind is not sufficient for the corresponding complex item to be there as well. Some sort of binding act is required. But the mental grouping of parts into wholes in enough to do the job in Ockham’s view. The principle is that whenever two or more simple acts are thus assembled, they form a new complex act, the semantical properties of which depend only on those of the components, and which can in turn occur as a part in some further grouping.

Adams’s second counterexample, however, can be seen as a challenge to Ockham’s parallelism between mental and spoken or written propositions, as Spade thinks it does, since the mental subject term, predicate term and copula are still seen as distinct ‘absolute’ units, just as the corresponding spoken or written words are. Spade’s argument is that if the copula is what binds the extremes together, then it is not a separable ingredient, and, consequently, not a distinct component. But this is an inference Ockham would reject, since he both holds that the copula is a distinct component and that its addition to the others suffices to bind them together into a proposition, just like the addition of the written word ‘eat’ to ‘homo’ and ‘animal’ within a single sequence suffices for turning ‘he results whole, ‘homo animal est’, into a written sentence. There is an interesting difference between the two cases, admittedly, since the order is relevant in the written sequence while it is not supposed to be in the mental corresponding concatenation. But this does not substantially affect the present point: the mental proposition is composed out of distinct units just as the spoken or written sentence is, and one of them corresponds to the copula. The same thing, moreover, must hold mutatis mutandis for the other syncategorematic logical acts such as negation, conjunction, quantification, and so on. Even though a mental act of negation, for example, is not normally accomplished alone in the natural order, it suffices, when it is added to a bundle of categorematic concepts plus copula, for turning the whole group into a negative mental proposition, of which it is itself a distinct simple component.

While clearly realizing that such was Ockham’s position – at least with respect to the copula, Marilyn Adams raised interesting objections against it in the guise of two counterexamples, and it turns out to be quite instructive to see just how the doctrine presented here can handle them. The key to it is to consider seriously the requirement that the relevant mental units should be concatenated into wholes for propositional acts to occur. Adams’s first counterexample is a situation in which ‘I think the proposition “an oak is a tree” and think the concepts of man and animal, without thinking the proposition “a man is an animal”’. In this case, the categorematic concepts ‘man’ and ‘animal’ are both present in the mind along with a copula (the ‘is’ of “an oak is a tree”), but the mental proposition ‘man is an animal’ is not formed for all that; therefore, Adams concludes correctly, the mere copresence of the copula with two categorematic concepts is not sufficient for the corresponding mental proposition to be formed. What is relevant in the example is that the copula in question is not mentally concatenated with the categorematic concepts of “man” and “animal” into a single mental unit. As we saw in chapter 2, the mereological grouping of mental items into distinctive wholes must be a crucial process in Ockham’s account of how complex mental propositions are structured. “Hominem homo est animal” and “omnis animal est homo”, for example, differ from each other in having different parts: “omnis homo” occurs in the former and “omnis animal” in the latter. Adams is right that the mere copresence of certain units within the mind is not sufficient for the corresponding complex item to be there as well. Some sort of binding act is required. But the mental grouping of parts into wholes is enough to do the job in Ockham’s view. The principle is that whenever two or more simple acts are thus assembled, they form a new complex act, the semantical properties of which depend only on those of the components, and which can in turn occur as a part in some further grouping. The second counterexample, however, can be seen as a challenge to Ockham’s parallelism between mental and spoken or written propositions, as Spade thinks it does, since the mental subject term, predicate term and copula are still seen as separate parts, in Ockham’s view. The principle is that whenever two or more simple acts are thus assembled, they form a new complex act, the semantical properties of which depend only on those of the components, and which can in turn occur as a part in some further grouping.
synthetic logical concepts as well). Ockham nowhere considers such a possibility, but it is mentioned in one of his anonymous successors as an integral part of the doctrine that mental propositions are complex units. And it does seem to be a rather natural elaboration on Ockham's own general approach, which is at a low cost both to the subject-predicate structure for all atomic propositions, and to the mereological principle of compositionality identified above. Ockham certainly could have accepted it without any great elaboration on Ockham's own general approach.

The act us-theory thus provides a rather elegant account of logical concepts: they are functional mental acts of a special sort, that normally do not occur alone in the mind, but that can be combined with other mental acts to form complex units endowed with precise semantical roles, that of being a quantified subject or predicate term, for example, or a predicative proposition, or a negative one, or a complex proposition such as a conjunction.

As to the original problem raised in the Ordinatio – where do such logical syncategorematic concepts come from? – there is only one plausible answer to it in the context of Ockham's doctrine as well as in the former: these logical acts correspond to innate capacities of the mind. Although he is not explicit on the matter, as Beretta stresses, Ockham can be shown to be committed to innatism in this case by the following straightforward considerations. Just as about every medieval philosopher does, he often repeats the Aristotelian motto that the specific difference of human beings with respect to other animals is that they are endowed with rationality. This 'rationality' can aptly be identified with the intellectual soul – certainly has to be innate in his eyes, since it constitutes the main distinctive feature by which a member of the human species essentially differs from a horse or a donkey. Now, a rational being is defined by Ockham, unsurprisingly, as a 'being or substance that can reason [ratiocinari];' and the capacity for reasoning, in his view, does require the capacity for assembling propositions, making negations, drawing inferences, and so on. The consequence follows: he basic logical aptitudes must be innate in rational beings. But syncategorematic logical concepts are nothing but actualizations of such mental acts in the possession of logical concepts, therefore, has to be seen as an innate feature of human beings.

While considering this as a 'plausible' option, Calvin Normore thinks that other possibilities are also open to Ockham, which is such that something else is taller than it. But syncategorematic logical concepts are nothing but actualizations of such mental acts in the possession of logical concepts, therefore, has to be seen as an innate feature of human beings.

When considering this as a 'plausible' option, Calvin Normore thinks that other possibilities are also open to Ockham, which is such that something is inside it, just as 'taller' is supposed to primarily signify 'potentia' or aptitude - which he squarely identifies with the corresponding concepts,48 and it could hardly apply to logical constants: something, and to secondarily signify (or connote) every substance or quality which is inside some object, according to Ockham, there simply is no such syncategorematic element in the external intuition.49 That Ockham sometimes has no independent reality according to Ockham - but n-tuples of singular substances or qualities, as we have repeatedly insisted upon in chapter 6. When complex groups of objects are intuited, then, what is implemented in the mind are connotative concepts, not syncategoremata.50

3. Prepositions and non-standard copulas

Our focus in this chapter up to now has been on logical constants: quantifiers, connectors, the copula 'is', the negation, and so on. These correspond indeed to Ockham's standard examples of syncategorematic terms. But the category in his view also includes a bunch of terms which cannot easily be classified as logical constants in the modern sense. Think of prepositions such as 'in', 'for', 'from', and the like; or of verbs like 'to have' or 'to inhere', which Ockham regularly treats as copulas. Those might well be the sort of terms Calvin Normore had in mind in the argument just discussed at the end of the previous section; and it must be conceded that the account offered so far does not smoothly extend to such cases. How are we to deal with them, then? Ockham didn't say much on the matter. The important thing for him was to acknowledge the existence of non-refering auxiliary terms (whether spoken, written, or mental), of which he took logical constants to be the more salient instances.51 Where exactly the limits of that category are to be drawn is not something he cared to investigate in any detail. This does not mean, however, that the system is without resources 'or facing the question of what concepts in the mind correspond to prepositions and verbs. Two complementary approaches could be explored. Since Ockham doesn't do it himself, I will be content to simply sketch them here, and to outline one important aspect which they share.

The first possibility is to consider some written or spoken prepositions such as 'in', 'with', or 'after', and verbs such as 'to have' and 'to inhere', as expressing in fact categorical relational concepts such as 'whiteness inheres in Socrates',52 which is true that all prepositions are cursorily said by Ockham to lack determinate and intrinsic reference. The relational concept corresponding to 'in' in the spatial sense, for example, is such that something is inside it, just as 'taller' is supposed to primarily signify 'a whiteness inheres in Socrates'), and which Spade, for one, has suggested at one point to treat as a special syncategorematic copula within Ockhamism.53 Ockham himself, in an important passage, puts the cognition corresponding to this particular verb on a par with any other intuitively ascertainable relational concept. Why shouldn't it? It is true, as Adams points out, that he had previously rejected such a conjunctive analysis of 'to inhere', but this was when he still accepted inferences as special relational objects in the world, a position he abandoned very soon in his career.54 As he reduced ontology to substances and qualities, and there is no obvious reason why this should not hold good for the concept of inheritance. That Ockham sometimes
treats 'inest' as a copula is no objection here since he often uses a very general sense of the technical term 'copula', according to which it applies to any relational verb whatsoever. Just as 'to see' can be analysed in mentalese into 'to be seeing', 'to inhere in' in this approach would be analysed into a regular mental copula, 'to be', and a connotative concept 'inhering in'.

Being connotative, this concept 'inhering in' would be liable to a nominal definition, like any other connotative term. Concluding at Spade and Gaškin believe, this would not being about an infinite regress. 'Inhering in' is an asymmetrical relational term in this approach and this means, according to Ockham's view of such terms, that any language there, in which it appears, including mentalese, contains a converse relational term - 'inhered in', let's say - which should occur in oblique in its correct complete nominal definition, and in the definition of which, in turn, it should occur itself in oblique. The complete Ockhamian nominal definition of 'inhering in' would be something like 'a quality with respect to which a substance is inhered in', and the definition of 'inhered in' would be something like 'a substance with respect to which a quality is inhering in'; just as the definition of 'taller', as we have seen, should be something like 'a body with respect to which a body is taller'. As I repeatedly stressed, circularity in such cases is not a problem, given what nominal definitions are intended for in Ockham's system. What matters is that the two definitions, taken jointly, make it perspectives that only substances and qualities are needed as primary and secondary subjects in these two correlative terms. Circularity, on the other hand, efficiently prevents infinite regress in this case. Spade and Gaškin think otherwise because they mistakenly take the Ockhamian programme to aim at the ultimate elimination of all connotative terms from the language of thought through nominal definitions.

A second fruitful approach for the treatment of such prepositions and verbs within Ockhamism would be to follow an intriguing suggestion from Paul Spade, and to postulate primitive mental syncategoremata corresponding to certain special terms like 'inhering', 'having', 'doing', and a few others. The idea is found in Buridan, for example, who rightly noticed that the nominalistic theory of connotation requires the acceptance of certain distinct modes of connotation. 'Father', presumably, does not connote the same thing that 'horseman' connotes the horses or 'white' connotes the whitenesses. If it did, the nominal definition of these two correlative terms. Circularity, on the other hand, efficiently prevents infinite regress in this case. Spade and Gaškin think otherwise because they mistakenly take the Ockhamian programme to aim at the ultimate elimination of all connotative terms from the language of thought through nominal definitions.

As Spade remarks, 'there is no evidence that Ockham himself would have accepted [this] development of his theory of connotation.' But something like this does seem to be called for, if one accepts that the variety of mental connotation is to be posited in the language of thought, as Ockham is committed to.

His treatment of oblique cases (genitive, accusative, and the like) turns out to be directly relevant here. For one thing, he clearly admits a variety of them in the language of thought, and this, as we have seen, simply amounts to accepting different sorts of grammatical complements. It seems natural to suppose - although Ockham does not say so - that each such distinctive sort of complement is associated in mental sentences with a distinctive syncategorematic indicator (corresponding, for instance, to 'in', 'with', 'on', or maybe 'having', and so on). This grammatical variety, on the other hand, is connected with the plurality of possible modes of connotation by the theory of nominal definitions: what I have called condition C3 for this proposition 5 requires in effect that the precise grammatical functions of the terms in oblique within a nominal definition (as revealed by their grammatical cases and/or by the prepositions or the copulas which govern them) should indicate the modes under which the secondary significates of the defined term are connotated. Now, if there are simple connotative concepts, as Ockham admits, and if - as he also holds - every connotative term has one, and only one, correct nominal definition, it follows that there must be in the language of thought one primitive and distinctive way of being a grammatical complement for each primitive mode of connotation. And if each sort of grammatical complement is associated with a distinctive syncategorematic indicator, there should be at least one distinctive syncategorematic concept in the mind for each distinctive mode of connotation. Since terms in oblique can occur as predicates or even subjects according to Ockham, these should also correspond to different modes of predication. Which brings us very close to the Buridanian view mentioned by Spade.

Let us take an example. Ockham refers at one point in the Summa Logicae to a grammatical situation where 'he oblique case is governed by the force of possession', as in the Latin sentence 'aliquis asinus est Sortis' (literally: 'some donkey is Socrates'), and asks whether the genitive 'Socrates' indicates a connection. Since Ockham speaks there of the oblique case being 'governed' (regitur) by the 'force of possession' (actus possessorium), it is permitted to extrapolate that the term 'Socrates' in the corresponding mental sentence should indeed be grammatically governed by a special copula (such as 'is had by') or a special possession preposition (such as the postposited 's' in English or the preposition 'a' in the French corresponding sentence 'un âne est à Socrate'). Of course, it is not clear in this particular case that the possession connection in question does correspond to a primitive mode of mental connotation for Ockham (although it might be); the point here is that such a distinctive copula or preposition should be innately available for each variety of connotation that the human mind is spontaneously capable of, whatever these varieties are.

These two approaches to prepositions and copulas - the relational one and the grammatical one - could indeed be combined within Ockhamism. It is possible to suppose both that the human mind is equipped with a limited number of innate capacities for different sorts of complementation and predication (as in Buridan's suggestion), and that, nevertheless, all other spoken or written prepositions and
copolas are represented in the human mind as categorematic relational concepts. As
for which is which, given the complexity of the problem and its ultimately empirical
character, it is not surprising that no solution to it is even sketched in Ockham.
seriously trying to devise a list of the basic modes of mental c notation would most
probably have led to an endless revision of the Aristotelian theory of categories, a
revolutionary move in the context of the early fourteenth century, which even
Ockham might not have felt ready to make, had he been tempted to. 5
Whichever way we choose for elaborating it, however, it is clear that the
Ockhamistic approach to prepositions and copulas should ultimately involve some
further innate mental apparatus in addition to purely logical capacities. Whether they
are syncategorematic or not, not all the required concepts could plausibly be
acquired on the basis of perceptual experience without some sort of antecedently
available aptitudes. As we have previously seen, the human mind, in its current
picture, must be able to judge that certain things are ordered in certain ways with
respect to others, 6 while some of these orderings might be perceptually
recognizable, this cannot be generalized. The tendency to associate perceptible
qualities with underlying substances through inference judgements is a salient case
in point: in order to intuitively recognize an inheritance connection in the first place,
one must, apparently, prepossess, in one form or another, the concept of "inhering
in". And special dispositions must also be supposed for causal judgements,
merological judgements, and maybe a number of others as well. The theory
consequently, requires the postulation, in one way or another, of an innate array of
categories, which Ockham - unsurprisingly - never fully explicated. This is not to say
that he was unconsciously anticipating some sort of Kantian disjunction with an a
priori structured mind on the one side and an ultimately recognizable world in itself on
the other side. Ockham clearly admits that although orders are not absolute things in
themselves, the ordering capacities of the mind adequately correspond in principle
to the organization of external reality. This is not as naive as it may sound: how,
otherwise, could human beings survive in this world?
Whether in the fictitious "acts of concepts", the human mind, in
conclusion, is endowed with a rich innate set of aptitudes. Scene are called for by its
very rationality, in order to account for logica operators such as predication,
quantification, negation, conjunction, etc. When actualized in mental discourses, they
correspond to syncategorematic conceptual acts. Others, in addition, are required to
account for the various sorts of basic relational judgements that the mind is capable of.
It is left open in Ockham's writings whether these should be thought of as
syncategorematic copulas and prepositions or as special innate connotative concepts,
the more promising approach probably being a combination of these two possibilities.

Notes
1. See Sl I, 4, OP n, p. 15: "Adhuc aliae dividitur terminus, ten vox vocalis quod mentalis,
quia terminus quantum termini categorematici, quidam syncategorematici (the italics are
mine).
2. Ockham's paradigmatic examples of consycategorematica in Sl I, 4, OP n, p. 15 are
omnes", "nullus", "aliquis", "tutus", "peccator", "tutum" and "spatium". A little further
down the same chapter, he makes it clear that all conjunctions and prepositions are to
be treated in the same way (p. 16). Elsewhere, the negative sign "non" is also given as an
example of syncategorematic term (see Sl II, 3, OP n, p. 6:3). As to the copulas, see
Quod, VII, 25, OTH VIII, p. 6:95 (note passage is quoted above in chaps. 5, 6, 28, where
other references are also given). The case of adverbs is somewhat special, since some of
them are considered as partially categorematic (see Sl I, 4, OP n, p. 16: "De indifferentibus
autem adverbiis alterius est, quia quadem eorum determinate significat illa quae
significant nomina categorematic, quamvis aliis modo significatis important"
"courageously' would be a good example of this: it obviously includes some sort of
categorematical reference to courage.
3. Sl I, 4, OP n, p. 15: "Termini autem syncategorematici non habet finitimae
significationem et certam, nec significat aliquas res distinctas a rebus significatis per
categorematicum, in quo sita est aprioristicus cetera per se positum nihil significat, sed addita
alterius figurae factum eiem significare, ita syncategorenma propter locandam nihil significat,
sed majis additum alterius facit ipsum alium significare sine facte ipsum pro alium vel
aliquibus modo determinato supponere vel alio officium circa categoricma exercent"
5. Ord. 1, sect. 2, qu. 8, OTH II, p. 282: "Quidam duobus est de conceptibus
syncategorematici et connotativi et negativi: additis possunt vel alii quos non sunt
connotativi, nec alii qui sunt connotativi nec alii qui sunt negativi. Capit
autem sint tales conceptus pati, quia omnis propositione in voce potest
correspondere consimilitudinem in mente, igitur isti propositiones "omnis homo est animal" et igitur alius
"homo est animal" correspondere distinguunt propositiones in mente; itaque additum
correspondit signum in una propositione quod non correspondit in altera."
6. Ibid., pp. 283-6: "[a] Adhuc duobus dicuntur [or rather dicere according to ms. A]
quod conceptus syncategorematici et connotativi et negativi non sunt conceptus
abstractum et habet sua natura supprin eterrebus vel ipsas modo distincti ab aliis
conceptibus significatibns. [b] Idem dicere [or rather dicere according to ms. A, B, C
and D] qui nullus [est according to ms. C, D, E and F] conceptus syncategorematicus nec
categorematicus nec negativus nisi tantum ex institutione... [c] Possunt additum
tales conceptus imponere vel conceptus abstrahi a vocibus, et ita fit de factum vel express vel
cognoscent; igitur quaerex, igitur in factum vel express vel
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connotativi et negativi, nisi tantum ex institutione... [d] Possunt igitur
ad significandum illa eadem quae significant ipsae voces extra. [e] Et igitur
abstracta vel conceptus abstrahi a vocibus, et ita fit de factum vel express vel
cognoscent: igitur quaerex, igitur in factum vel express vel
connotativi et negativi, nisi tantum ex institutione... [f] Possunt igitur
ad significandum illa eadem quae significant ipsae voces. [g] Hoc tamen fit
conveniente per conceptus abstractos a vocibus propter
sed quod significat tantum cum aliis. Sed igitur est der bitte
mentis; igitur iste vocit "omnis" et igitur in " omnis
abstracta vel conceptus abstrahi a vocibus, et ita fit de factum vel express vel
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See, for instance, p. 20: "... per copulam important conceptus absolutus qui habet tamen esse obiectum in anima ..."

Karger 1996, p. 222.


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43. See, for example, Exp. in Porph. 1.5, OPA II, p. 23: ‘Unde si “rationale” est differentia hominis, “rationalitas” importabit idem quod “anima inter lectura”, et rationalitas eis anima intellectiva…”

44. See Ord. I, dist. 8, q. 4, OTH III, p. 233: ‘Hae enim est praevis solus “omnis homo per rationalitatem vel per animam intellectivam differt specie ad aseito…” ‘Or Exp. in Porph. 3.2, OPA II, p. 55: ‘Si definitur quod est hiui quibus differentia ab alio differentia specifica, ictae homo differt e quoe per rationale.”

45. See Exp. in Porph. 9.3, OPA III, p. 187: ‘Sicat si definitor rationale, quod est ens vel substantia quae potest ratio incapaciti.”

46. Even angels, in Ockham’s view, in so far as they are intelligible beings, can form complex propositions and draw inferences: see Rep. II, q. 14, OTH V, pp. 311-17, esp. 316-21.

47. See above chap. 6, sect. 2.

48. See above chap. 6, sect. 2.

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50. In Ockham’s view, in so far as they are intelligible beings, can form complex propositions and draw inferences: see Rep. II, q. 14, OTH V, pp. 311-17, esp. 316-21.

51. See above n. 2.

52. Taking logical constnants as paradigms for syncategoremata was the standard attitude of medieval logicians. Kretzmann (1982a, p. 213, n. 10) identifies the following logical features as constituting the domain of syncategoremata in the thirteenth and fourteenth centuries: ‘Distribution (or quantification), e.g., “omnis”, “tota”; Negation, e.g., “non”, “abiit”; Exclusion, e.g., “utens”, “tamen”; Exception, e.g., “propter”, “nisi”; Composition (or predication), e.g., “est”, “incipit”; Modality, e.g., “necesse”, “continuere”; Conditionality, e.g., “si”, “quit”; Copulation (or conjunction), e.g., “et”, “et”; Disjunction, e.g., “vel”, “adam”; Comparison, e.g., “quin”, “Reduplication, e.g., “inquantum”, “rerdum quod”.


54. See Ockham’s final position concerning the ontological status of relations in the natural world, see in particular Ord. I, dist. 30, q. 2-4, OTH IV, pp. 320-74, and Quest. V, q. 21, OTH IX, pp. 611-701.

55. See above chap. 6, sect. 3.

56. See Adams 1987, p. 271-2, n. 119. The passage she refers to is found in Rep. II, q. 1, OTH V, pp. 16-17.

57. For Ockham’s final position concerning the ontological status of relations in the natural world, see in particular Ord. I, dist. 30, q. 2-4, OTH IV, pp. 320-74, and Quest. V, q. 21, OTH IX, pp. 611-701.

58. For example St. I, 4, OPA I, p. 16.

59. See above chap. 6, sect. 3.

60. See Spade 1990, p. 606: ‘Sed omnis lerminus connolans aliud at co pro quo supponit...

61. This is what was labelled Thesis 3 about nominal definitions in chap. 5, sect. 1. See in particular the passage from Quodl. V, q. 4, OTH IX, p. 555 quoted there in n. 15.

62. See for example St. II, 8, OPH I, p. 272, about propositions with an oblique subject or predicate.

63. Ibid., ‘quando casus obligations ad vi possessions’.

64. See Adams 1987, p. 271-2, n. 119. The passage she refers to is found in Rep. II, q. 1, OTH V, pp. 16-17.

65. The passage is quoted by Spade 1990, p. 606; the English translation I use is his.

66. John Buridan, Sophismata 4.6d, Scott 1977, p. 62: ‘Tertio notandum est quod secundum diversus modos positivos adiacentiae rerum appellatarum ad res pro quibus termini supponunt, proveniunt diversi modi praedicandi, ut in quae, in quantum, in quando, in ubi, in quomodo hoc est habet hoc ad idem, etc. Ex quibus diversi modi praedicandi, sumuntur diversa praedicamenta, prout debet videri supra librum Praicluentumorum.’

67. See Ockham’s final position concerning the ontological status of relations in the natural world, see in particular Ord. I, dist. 30, q. 2-4, OTH IV, pp. 320-74, and Quest. V, q. 21, OTH IX, pp. 611-701.

68. See above chap. 6, sect. 3.

69. This is what was labelled Thesis 3 about nominal definitions in chap. 5, sect. 1. See in particular the passage from Quodl. V, q. 4, OTH IX, p. 555 quoted there in n. 15.

70. See above chap. 5, sect. 1.

71. This is what was labelled Thesis 3 about nominal definitions in chap. 5, sect. 1. See in particular the passage from Quodl. V, q. 4, OTH IX, p. 555 quoted there in n. 15.

72. See above chap. 5, sect. 2.

73. See above chap. 5, sect. 2.

74. Note that Ockham’s logical constnants are quite conclusive in this respect.

75. For example St. II, 8, OPH I, p. 272, about propositions with an oblique subject or predicate.

76. Ibid., ‘quando casus obligations ad vi possessions’.

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Chapter 9
The Meaning of Words

Everybody admitted in the Middle Ages that spoken and written words receive their meaning by being associated with concepts somehow. But how exactly is this dependency to be theorized came to be the subject of a lively debate -- a 'magna altercatio', Scotus says -- towards the end of the thirteenth century. Ockham in this discussion resolutely sided with those who held that words are not properly said to signify concepts, but things. Yet he did not believe, any more than anybody else, that words signify things independently of concepts: words, he would say, are 'subordinated' to concepts. How he thinks of this relation turns out, as we shall see, to be of far-reaching significance for his whole philosophy of mind and language, but still, I am afraid, widely misunderstood. My intent in this final chapter is to elucidate Ockham's notion of subordination. It will be shown, in particular, to require a resolutely externalistic conception of the meanings of words, of the sort Hilary Putnam's name has been associated with in contemporary philosophy (section 1). How subordination thus understood fits with Ockham's nominalism will then be considered (section 2). And it will be argued, finally, that Ockham's best theory on this matter opens the way for the acceptance of what I will call 'reverse subordination': a direct semantical dependency of certain mental units upon their linguistic counterparts. The case of singular terms, at this point, will come out as especially revealing (section 3).

1. Subordination

The basic scheme is the following. First, simple categorematic concepts are acquired as natural signs of external things. And then comes subordination: certain spoken sounds are conventionally associated with certain concepts, in such a way that the spoken sounds in question inherit the signification of the concepts they are associated with. The point is made in the very first chapter of the Summa Logicae:

I say that spoken words are signs subordinated to concepts or intentions of the soul not because in the strict sense of 'signify' they always signify the concepts of the soul primarily and properly. The point is rather that spoken words are imposed to signify the very things that are signified by concepts of the mind, so that a concept primarily and naturally signifies something and a spoken word signifies the same thing secondarily ... The same sort of relation I have claimed to hold between spoken words and impressions or intentions or concepts holds between written words and spoken sounds.2

The concept of 'horse', for example, naturally signifies horses. When the spoken sound 'horse' -- or 'equus' or 'cheval' -- is conventionally subordinated to that
The meaning of words to that of words. The term ‘subordination’ turns out to be judiciously chosen after
all.

So far so good. This is generally well understood. But there is more to Ockham’s
idea of subordination, and the really interesting part of it seems to have been missed
in much of the recent secondary literature. The picture many commentators give is
the following: whenever I speak intelligently, I have some concepts present to my
mind and the spoken words I utter to communicate what I mean are subordinated to
those concepts. If I utter, for example, the English sentence ‘some horses are black’,
my token utterance is supposed to be subordinated to a corresponding mental
proposition which is actually present to my mind.

This picture, however, is not Ockham’s. Two preliminary considerations will
begin to shake it. First, subordination, as we have seen, holds not only between
spoken words and concepts, but also – in the same sense – between written
words and spoken words. How can the received parallelistic picture be extended to
this other case? Should we say that whenever I write down something, I should also
utter the corresponding spoken words, or at least have a mental representation of

my token utterance is supposed to be subordinated to a corresponding mental
representation of horses, let’s say, a mental representation of the spoken word
‘horse’, and a mental representation of the written marks I am about to draw. Is this
a theory we want to attribute to Ockham? Well, maybe, if we have to. But the fact is
be done says anything of the sort. And, as we shall see shortly, he is not committed
to it either.

My second preliminary consideration has to do with equivocality, which is indeed
a subject where Ockham saliently resorts to the terminology of ‘subordination’. In
the Summa Logicae, for example, the very definition of what an equivocal word is,
is coined in terms of ‘subordination’: ‘A word is equivocal if, in signifying different
things, it is a sign subordinated to several rather than one concept or intention of the
same significate, just as there are many ordered effects of a same cause,
none of which being the cause of the other, as is clear in the case of the sun illuminating
several parts of the environment.’

What we have here is a transitional phase, with respect to vocabulary, between
Scotus’s phrase ‘signa ordinata’ and Ockham’s later use of ‘subordinata’ in the
Summa Logicae.

But what is the advantage of saying that words are subordinated to concepts,
rather than signify them? For Ockham at least, this is not just an innocuous variation
in the way of speaking. Having decided to count concepts as
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Let me concede, for short, that what is properly signified by a spoken word is a thing.
Nevertheless, written words, spoken words, and concepts: are ordered signs (signa
ordinata) of the same significate, just as there are many ordered effects at a same cause,
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concept, it ipso facto starts signifying horses too, albeit conventionally. And when
the corresponding written word is conventionally subordinated in turn to spoken
sound, it also ipso facto starts to conventionally signify horses.

Ockham’s source for this way of speaking is probably John Duns Scotus in the
very passage where he refers to the magna altercatio about whether words signify
correlates or things:

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one of which being the cause of the other, as is clear in the case of the sun illuminating
several parts of the environment.

Ockham expresses himself in a closely related way in his own Ordinatio:

a certain spoken word primarily signifies several things equally, because it has been
imposed by a single imposition to everything which a determinate concept of the impositor
is common to, so that the word and the concept are to each other like ordered signs (signa
ordinata); not because the word primarily signifies the concept, but because it is
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signa ordinata, Ockham clearly realized that it was preferable for him to use some other verb than ‘to signify’ for the
connection of words to concepts. For this relation, it is very different from the relation that concepts have with their things they signify. In
Ockham’s framework, to say that a concept signifies certain things in the world is to say that this concept will normally be used by the agent to refer to those very things:
when taken in personal supposition (which is the standard case), the concept is
expected to supposit to the same sense of ‘to signify’, in the same way that concepts impose at primarily and precisely signifying every single thing the concept is true of ...

If so, we could easily avoid equivocality in our external languages simply by mentally
sticking to one particular interpretation of some potentially equivocal word. This
sounds strange. The very idea of ‘equivocality’ is typically used for cases where the meanings of the words do differ from what the speaker wants to convey.

What these two preliminary considerations jointly lead to, is that the received
parallelistic picture of subordination as the relation holding between a given
utterance of a speaker and what that speaker has in mind at the moment of utterance, would force us to attribute to Ockham either strange theses, or imprecisions of
speech, or both. This is not yet a refutation of the picture, of course; but it should
arouse our suspicion.

Let us come down now to the main point. In the crucial passage of Summa

meaning of words

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Let us come down now to the main point. In the crucial passage of Summa
Logicae I, 1 quoted above, where Ockham introduces the technical phrase 'signa subordinata', he explicitly – and thoughtfully – links subordination with the imposition of the term: 'I say that spoken words are signs subordinated to concepts because, when spoken, words are imposed [imponuntur] to signify the very things that are signified by concepts of the mind.' This is to be taken seriously, 'Imponere' is a technical term in medieval philosophy of language. The 'imposition', in Ockham's vocabulary, is the act of attributing conventional significations to a given sound or a written mark. The subordination of a word to a concept, then, is what happens at the original moment of the imposition, not at the moment of utterance.

Look again at the passage from distinction 2 of the Ordinatio quoted above: a word and a concept, there, are said to be like 'ordered signs' (signa quasi ordinata) because the word is imposed, by means of a single act of imposition, at signifying everything that the concept signifies. Ockham's example is the univocal term 'homo'; the reason he gives why 'homo' is indeed a univocal term overly has to do with the original imposition. Such is the word 'homo' and this is why it is simply a univocal term; for the impositor [imponens] intended this word "homo" to signify every single thing which a certain determinate mental concept is true of. The use of 'imponens' along with the past tense "imponere" in these lines clearly refers the reader to some past event of imposition.

This is even more explicit in the Summa Logicae where Ockham discusses the same example:

Wherever it was that first instituted the use of the term 'homo' saw some particular man and coined the term to signify that man and every substance like him. But even though it signifies indifferently many men, 'man' is not equivocal, for in signifying indifferently many men it is a sign subordinated (signum subordinatum) to just one concept and not many.

Subordination, once more, is based upon the original imposition of the term by whoever it was that first coined it and associated it with a given concept. Ockham's well-considered idea of subordination can thus be captured in the following formula:

A given sign $S_2$ is subordinated to a previously signifying term $S_1$ if and only if $S_2$ has been imposed to signify whatever $S_1$ signifies.

This is a very general notion. And a useful one too. In the light of it, we can readily understand, for example, that a written word can be said to be subordinated to a spoken word in exactly the same sense in which a spoken word is subordinated to a concept in both cases. Of course, a written word is not coined sign, it has been attributed the significature of some other previously existing sign, whether natural or conventional.

And there is no problem either, in this approach, with Ockham's characterization of equivocity in the Summa: a given sign typically gets equivocal by being successively the object of several different impositions. Subordination, again, is seen to hang on to what happened at the original moment(s) of imposition.

The point seems to have been missed by many. Paul Spade, for example, writes the following about Ockham: 'Insofar as a translation is supposed to "express the same thought" as the original, we can say that a statement in one language is a correct translation of a statement in another language if the two statements are subordinated to the same mental proposition.'

Strictly speaking, this cannot be Ockham's own notion of subordination. Spoken sentences, in Ockham's theory, are not to be considered anything else but sentences, in the relevant sense. Ockham, remember, subscribes to some form of semantical atomism. What is attributed a conventional significature at the moment of imposition normally is a simple term, and the semantical properties of complex phrases, such as a complete sentence, are supposed to be systematically derived from those of their simple components, without any new subordination being needed in the process. We could set out, of course, to introduce a derivative notion of 'subordination' which would be applicable to complex sentences. But for one thing, it is not quite obvious how to do it. And we should be aware, moreover, that this would not be subordination in Ockham's own sense anymore: the relation between a spoken and a mental sentence, in his view, does not normally depend upon a special act of imposition.

Another interesting example of a similar discrepancy with respect to Ockham's use is found in Calvin Normore's oft-quoted paper on Ockham's mental language: 'Each spoken connotative term and its defining expression', Normore writes, 'will be subordinated to the same complex expression of the mental.' Norrmore supposes here that every spoken connotative term is strictly synonymous with its own definition for Ockham and that both are represented in the mind of a competent speaker by a single complex conceptual sentence, which is, of course, the very reading of Ockham we found reasons to reject in chapters 4 to 6 above. What I am concerned with now is the place attributed to subordination in this interpretative scheme; it does not fit very well, I contend, with Ockham's own way of characterizing the relation. Even admitting that a simple spoken word could in certain cases be subordinated to a complex conceptual sentence, the spoken definition of that word would not in such cases, properly be said to be subordinated, in Ockham's technical sense, to the same mental expression.

Suppose, for the sake of discussion, that 'father' is adequately defined as 'male animal having a child'. And suppose, in addition, as seems probable, that we do have the mental capacity for assembling a conceptual complex sequence of the form: 'male' + 'animal' + 'having' + 'child'. It might be that the person or group who originally struck the word 'father' decided to subordinate it to precisely this complex mental phrase (or some token of it). But what about the spoken definition? The English phrase 'male animal having a child', for example, will not properly be said to be subordinated, in Ockham's sense, to the corresponding complex mental phrase. What has been independently subordinated in this case, as in that of complete sentences, is each component of the English expression. The English word 'male' must have been subordinated to the concept 'male', the English word 'animal' to the concept 'animal', and so on. But the complex English phrase as a whole is not subordinated to anything, since it is not (normally) the object of a new imposition. It will turn out, of course, to have some very strong semantic equivalence with the corresponding mental sequence. But, however strong, this relation will not be subordination in Ockham's sense.

This is not mere quibbling. A whole view of language is at stake here. Spade and
Normore's use of 'subordination' rests, as far as I can see, upon their common assumption that what a spoken sound is subordinated to is the intellectual item the speaker has in mind when uttering the sound. If this was the case, it would be innocuous, indeed, to say that a complex spoken phrase or sentence is subordinated to the mental sequence the speaker has in mind at the moment of utterance, just as each one of its components is supposed to be subordinated to some conceptual component of this very mental sequence. But this is not Ockham's approach. The important point, let me repeat, is the following: the meanings of words, for Ockham, depend not upon what is going on in the head of the speaker at the moment of utterance, but upon what they were originally subordinated by the impositor to. That then which words are the marks of are the ideas of the speaker: nor can anyone apply them as marks, immediately, to anything else but the ideas that he himself has.

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In normore's view, on the signification of spoken words as I read it. Let us return again to a passage from Summa Logicae I, 43, quoted earlier: 'Whoever it was that first instituted the use of the term "homo" saw some particular man and coined the term to signify that man and every substance like him. . . .' To a modern reader, this must inevitably recall Hilary Putnam's canonical presentation of semantic externalism in his famous 1975 paper 'The meaning of "meaning"," and it is as remote as can be from Locke's solipsistic view.

Ockham goes as far as to say that in some cases even the impositor might not have in his own mind the concept which he chooses to subordianate a given spoken sound to. For subordination to succeed, it is sufficient, Ockham thinks, that the impositor be able to identify the relevant concept in some distinctive way. This does not automatically require that he should possess it himself: Moreover, it is possible for somebody to impose this name a to signify whatever animal will appear to him tomorrow. This being done, the word a distinctly signifies this animal, and it will signify it for all those who are willing to use the word as it was imposed, even though the impositor does not have a distinct intellecation of this animal, and maybe will not have one when it appears to him.

In such a case, the concept which the impositor intends to subordianate the word a to, is uniquely identified: it is the absolute specific concept that a well-placed observer would spontaneously form if he or she was to have a normal intuitional comprehension of the first animal the impositor will meet with tomorrow. It might happen, as Ockham explicitly acknowledges, that the impositor, at the moment of coming across the animal in question, should not himself be in a position to form that concept (he might not have a good view of the animal, for example, or his attention might be drawn elsewhere, or whatever . . .). Yet the relevant absolute concept is entirely determinate. And so is its signification: it signifies a certain individual animal (the first one that the impositor will come across tomorrow) plus 'every other substance like it' and nothing else. The subordinated spoken word, consequently, will inherit this same signification from the very moment of its imposition; this is the signification it will have, from then on, whenever it is uttered by a speaker who accepts to use this particular spoken sound in accordance with this imposition, even if this particular speaker - and everybody else, for that matter - should lack the concept in question at the moment of utterance.

2. Types and tokens again

Our description of the subordination process has been given so far in terms of linguistic and conceptual types rather than tokens. This is easier to do for a start, and
it does correspond to Ockham's usual practice. When he writes, for example, that 'a certain spoken word [aliquis vox] signifies several things equally, because it has been imposed [etc.],' he speaks as if the spoken sound that now signifies something was the very same one that was originally associated with a 'determinate concept' by the impositor. Yet the relevant tokens, of course, can be numerically distinct. Sameness in such cases must be generic or specific identity, not numerical identity. As was explained in chapter 3, the type idiom is acceptable to Ockham in semiotical matters so far as it is reducible in principle to talk about tokens. How such a reduction can be achieved in the particular case of subordination-theory, is not — unsurprisingly — developed by Ockham, but it turns out to be rather straightforward.

Types can enjoy no independent existence in Ockham's ontology. What must have happened, then, in a typical situation of semantical subordination, is that the original impositor associated at the moment of imposition a characteristic token of a certain spoken sound with a certain conceptual token. The latter naturally signifies, prior to the impositional act, certain individuals in its world, in virtue of belonging to a mental chain of intellectual acts and habitus causally grounded in the right way. When the signification of this conceptual token is conventionally transferred by the impositor to the spoken token, the convention is forward in that it should go on to be transmitted to an indefinite number of future spoken tokens as well. Which ones exactly? Two conditions, as far as I can see, must be met in the Ockhamistic context for a newly uttered token to inherit the signification attributed to one of its ancestors by the impositor: first, the new token must be phonologically similar to the one that was associated with a certain concept at the time of imposition; and second, the utterer of the new token must agree to use the sign as it was imposed.

The latter condition is especially interesting. Ockham clearly points to it in a passage of the Ordinatio I have just quoted, where he writes that a certain word 'a will signify a certain animal for all those who are willing to use the word as it was imposed.' If a speaker is to use certain spoken sounds as linguistic signs, he or she must accept the authority of some past impositional acts. When and how these acts occurred, and who the impositors were, is something, of course, that most speakers don’t know anything about. Ockham himself does not provide any precise description of how such conventions are originally supposed to be implemented, and his general approach is compatible with a wide variety of hypotheses on this subject. There is no need, in particular, to suppose that there was only one single impositor in each case, and that the event of imposition always occurred instantaneously. Collectively and indirect processes must be at work most of the time, obviously, and this is something Ockham would have no problems with. The willingness to use a certain token 'as it was imposed' cannot depend, for a particular speaker, upon her ability to correctly locate or describe the corresponding original act of imposition. What must suffice is an agreement from the speaker to use spoken sounds and written marks in conformity with the impositions that are currently in force within the linguistic community.

This accounts for equivocity, in particular. Given a utterance of a certain speaker might be equally similar to two past tokens that were independently subordinated to non-equivalent concepts; given the accidents of collective linguistic history, both impositions might simultaneously be in force within a given linguistic community. In such a case, the general willingness of the speaker to use the signs 'as they were imposed' results in her uttering a token with more than one signification. This accounts for equivocity, in particular. A given utterance of a certain speaker might be equally similar to two past tokens that were independently subordinated to non-equivalent concepts; given the accidents of collective linguistic history, both impositions might simultaneously be in force within a given linguistic community. In such a case, the general willingness of the speaker to use the signs 'as they were imposed' results in her uttering a token with more than one signification, even if she doesn’t know anything about the original act of imposition. Ockham himself had clearly acknowledged this possibility in his first theory of how connotative, negative, and syncategorematic concepts receive their signification. As we have seen, Ockham later abandoned this approach as an account of how such concepts are acquired. He came to accept some
natural syncategoremata as well as some naturally implemented simple connotative concepts.33 Yet, nothing in his later position forces him to renounce the very possibility of those stipulative repositions of concepts that he had hypothesized in the Ordinatio. It is true that he never developed the point again in his later works, but his best theory, as I will now argue, readily accommodates it.

It will be instructive in this regard to ponter a bit over the paradigmatic case of proper names. As we saw in chapter 1, intuitive acts themselves can serve as singular terms in the language of thought, according to Ockham.34 My intuitive grasping of this cat is in front of me is a simple connotative concept, that is, a concept that signifies in virtue of its original imposition, she will be in a position to use proper names in her own mental reasoning with the same semantical and logical features that spoken proper names have. Invalid idiosyncratic inferences would ipso facto lose much of their attractiveness.

An ambiguity, admittedly, would thus be introduced in the language of thought. The same mental tokens will naturally signify the English word 'Aristotle' and can have simple supposition since the predicate is a term of second intention ('species'), and it can have personal supposition as well since personal supposition is always possible according to him.35 There is a sense, then, in which such a mental sentence can be said to be ambiguous: it could mean that a certain real man is a concept (which is false, of course) or that the concept of 'man' is a concept (which is true).36 This is very close to what reverse subordination results in: the mental sentence 'ARISTOTLE is a philosopher' (where 'ARISTOTLE' is the mental noun for the English word 'Aristotle') might mean, on this view, that a real man, Aristotle himself, is a philosopher (if we favour the stipulative signification) or that a certain English word is a philosopher (if we favour the natural signification). It is true that the ambiguity now rests on signification rather than supposition as in the case explicitly admitted by Ockham; but considered at the level of complete mental sentences, the parallelism between the two situations seems very strong, and the same disambiguating processes, presumably, could work in both. Ockham is committed to attributing a disambiguating role to some contextual factors or other with respect to suppositional ambiguities.37 The same factors, whatever they are, should do just as well for a mental sentence like 'ARISTOTLE is a philosopher'.

In short, nothing prevents Ockham's former hypothesis about reverse subordination to be maintained within his mature theory. And there is a job for it there: it would nicely account for our capacity to use mental proper names in our mental reasoning.

Let me insist again that this is not explicitly developed in Ockham's later works. But what he says about subordination - for example, in the passages quoted in section 1 of the present chapter - does commit him to a robust form of semantic externalism with respect to the signification of spoken and written words. It is but a small step from there to accepting at least some degree of externalism with respect to the signification of concepts. Ockham might not have thought very deeply about this, however, the idea can and should be generalized to other categories of terms.

This is not innocuous. Different users of the same proper name will inevitably associate it with different mental descriptions, and will be attracted, consequently, to various inferences, none of which would be widespread in the case of spoken names.

This is a potential source for confusion and misunderstanding. Suppose I associate the English name 'Aristotle' with a given mental description such as 'the author of the Categories'. It is to be supposed, from Ockham's point of view, that an intelligent speaker should normally be capable of avoiding such traps. But how is that to be done? One nice way of achieving it, at least, would be to resort to this reverse subordination process that Ockham had hypothesized himself in the Ordinatio. If a speaker can stipulatively reposition her conceptual representation of the English word 'Aristotle' so that it signifies for her, from then on, whatever individual the spoken word

signifies in virtue of its original imposition, she will be in a position to use proper names in her own mental reasoning with the same semantical and logical features that spoken proper names have. Invalid idiosyncratic inferences would ipso facto lose much of their attractiveness.

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any of the other main tenets of his later theory. Some of our mental signs would thus come to depend for their (stipulative) signification upon the concepts that other people have naturally acquired.

In Representation and Reality, Hilary Putnam lists three assumptions as constituting the basis for the internalistic picture of meaning he wants to break with (and which he traces back to Aristotle):

1. Every word he uses is associated in the mind of the speaker with a certain mental representation.
2. Two words are synonymous (have the same meaning) just in case they are associated with the same mental representation by the speakers who use those words.
3. The mental representation determines what the word refers to, if anything.3

Ockham, we may now conclude, is committed to rejecting this entire budget of theses. In so far, at least, as linguistic meaning is concerned, the picture he favours comes out as strikingly externalistic.

1. Spoken and written words are subordinate to certain previously existing signs (whether natural or conventional), not by each particular speaker, but by the original imposers of the language.
2. Two words are synonymous if they were originally subordinated to the same concept (or to equivalent conceptual tokens).4 Particular speakers can fail to recognize such synonymies, even if they correctly use the words in question in most situations.5
3. What a word refers to is determined by the signification of the sign(s) which it was originally subordinated to. The meaning of our linguistic signs, then, can be opaque to us up to a point.

And if, on top of it, reverse subordination is added to the picture, as Ockham had once proposed, externalism extends to thought itself, at least partially: in Ockham's best theory, as it seems, some of our mental representations could be stipulatively endowed with determinations, even if we do not happen to possess the corresponding natural concepts.

Notes
1. See John Duns Scotus, Ordinatio I, dist. 27, q. 3, in Opera Omnia VI, Vatican edition, 1963, p. 97. A survey of this discussion can be found in Panaccio 1999a, chap. 7.
2. SL I, 1 OPH I, pp. 7-8 ("... si vos esse subordinata conceptus seu intentionibus attinet, non quia propria accipiendo hoc vocabulum "signa" ipsae voces semper significant ipsa conceptus animae primo et proprie, sed quia voces imponunt ad significandum illud eadem quae per conceptus mentis significantur, id quod conceptus naturaliter significat aliquod et secundum vox significet illud idem ... Et sic dicamus de vocibus expectu possit, si nos intentionem sequamur, eodem modo proportionaliter, quantum ad hoc, tendemus et de eis quae sunt in scripto respectu vocem" (transl. Loux 1974, p. 50, slightly amended)).
3. The meaning of words depends upon the actual nature of the particular things that serve as paradigms.4
5. Ord. I, dist. 2, q. 4, OPH I, pp. 139-40: '... aliquam vocem acque primo plura significare, quia una impositione imponitur omniibus omnibus conceptus determinaturus habebimus ab imponere est communis, id quod sint signa quae secundum naturaliter semper significanturillum conceptum, sed quae imponunt ad significandum primo et praebere omne illud de quo conceptus praeferatur ...' (italics are mine).
6. SL I, 13 OPH I, p. 45: 'Est enim vox illa aequi vox qua significat quod plura qui naturaliter subordinatur conceptui, sed est equivalentum et plura concepti determinaturum conceptus aequi conceptorum et non plura in significando illud plura homines aequi proprio ...' (transl. Loux 1974, p. 156, slightly amended; the italics are mine).
7. SL I, 1, OPH I, p. 7:--text quoted above in n. 2. Loux's translation here unfortunately renders "imponunt" by "are used to" (Loux 1974, p. 50), thus losing the precise technical import of the term.
8. See the text quoted in n. 4.
10. SL I, 43, OPH I, p. 124: "Et enim qui primo instituit hunc vocem "homo", videmus aliquem hominem particularem, instituit hunc vocem ad significandum illum hominem et quanitatem hominis quorum nullum est causa alterius, vel alii habent, vel alii habemus, vel ali habent, tales conceptus" (italics are mine).
11. Literally taken, this formula applies only to categorematic terms, since only these have determinate significations, even if we do not happen to possess the corresponding natural concepts.
12. See the text from SL I, 13 quoted above in n. 6.
15. See above chap. 6, sect. 5.
16. SL III, 2-3, OPH I, p. 557: '... ex quo voces sunt ad placitum, voces mere absolutae possunt imponi eisdem de quibus habemus, vel ali habent, tales conceptus' (italics are mine).
17. Ibid., p. 559 (about the sentence "leo potest esse animal"): "Et habebimus terminum propositum quoniam cibus subiectum est cum propositum multi commodibus, quaeramus utile est simplex et propri causa, sed propositionem mentalem cum subiectum sit aliquid quod mere absolutum propria homines non habebimus ...' (italics are mine).
20. See for example Putnam 1975b, p. 245: "We have now seen that the extension of a term is not fixed by a concept that the individual speaker has in his head, and this is true both because extension is, in general, determined socially - there is division of linguistic labor as much as of "real" labor - and because extension is, in part, determined ineluctably. The extension of our terms depends upon the actual nature of the particular things that serve as paradigms."
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21. Ord. I, dist. 22, q. unica, OTh IV, p. 56: 'Practerea, poteris aliquid imporri hoc nomen a ad significandum quodcumque animal quod occurrit ubi eris. Hoc facio, distincte significant illud animal, et significabit apud omnes volantes uti voces sicut imposita est, quoniamquae illud opponens non distincte intelligit nec forte distincte intelligit quando ubi occurrerit.'

22. See the passage from SL I, 43 quoted above in n. 10. Other contextual elements might also play a role. See on this Pasaccio and Perini Santos, forthcoming, esp. sect. 5: 'Le rôle du contexte.'

23. Ord. I, dist. 2, q. 4, OTh II, pp. 139–40; text quoted above in n. 4.

24. For Ockham's use of this distinction, see, for example, the passages referred to above in chap. 3, nn. 35–9, and the corresponding discussion in the core of the text.

25. See above chap. 3, sect. 5.

26. As we saw, it remains possible for Ockham that the impostor does not himself possess the relevant concept at the moment of imposition (see the passage from Ord. I, dist. 22 quoted above in n. 21), but he must have, at least, some descriptive way of identifying it, which should not presuppose, of course, the irreducible existence of linguistic or conceptual types.

27. Ord. I, dist. 22, OTh IV, p. 56: 'Hoc facio [hoc nomen a] distincte significant illud animal, et significabit apud omnes volentes uti voces sicut imposita est ... ' (italics are mine; a longer portion of the passage is quoted above in n. 21).

28. Ord. I, dist. 2, q. 8, OTh II, p. 286: ' ... et [intellectus] imponit istos conceptus ad significandum quae simpliciter idem significare ... ' (italics are mine; the text quoted above in n. 21).

29. See above chap. 8, sect. 2.

30. See above chap. 4 and 6.

31. See above chap. 1, sect. 4.

32. As we saw, it remains possible for Ockham that the impostor does not himself possess the relevant concept at the moment of imposition (see the passage from Ord. I, dist. 22 quoted above in n. 21), but he must have, at least, some descriptive way of identifying it, which should not presuppose, of course, the irreducible existence of linguistic or conceptual types.

33. We thus arrive at something like the Kripkean picture of how proper names are introduced in the language. See Kripke 1972, p. 302: 'A rough statement of a theory might be the following: An initial baptism takes place. Here the object may be named by ostension, or the reference of the same name is "passed from link to link", the receiver of the name must, I think, intend when he learns it to use it with the same reference as the man from whom he heard it.'

34. See the passages from Quodl. I, q. 13 and V, q. 7 quoted above in chap. 1, nn. 41 and 47.

35. See above chap. 3, sect. 5.

36. See above chap. 1, sect. 4.

37. See in particular the passages from Quodl. I, q. 13, and V, q. 7 quoted above in chap. 1, nn. 27, 28, and 31, as well as the corresponding discussion in the text. For more on the relevant notion of insinuatio, see chap. 1, sect. 2 and 3.

38. See Quodl. I, q. 13, OTh IX, p. 77: ' ... tam absum cognitionem abstractivam proprium, sed illa non est simplex sed composita ex simplicibus'.

39. See the passages from SL III–2, 29, OTh I, pp. 558–9 quoted above in nn. 16–17, and the corresponding discussion in the text.

40. See SL III–4, 4, OTh I, p. 763 (about suppositional equivocation): 'Et est notandum quod si in uno modi... propositio venisse ... ' That simple and material suppositions are possible in natural language in addition to personal supposition is explicitly acknowledged by Ockham in SL I, 64, OTh I, p. 197: 'Sicut autem tali divisitias suppositionem possessio contextus termini vocavit et scriptum, ita etiam possessio contextus termini mentalis, qua intenit potest suppover e pre illo quod significat et pro se ipse et pro voc et pro scripto' (italics at mine).

41. See SL I, 65, OTh I, p. 197–8: 'Notandum est eisam quod semper terminus, quoniam quae propositione ponitur, potest habere suppositionem personalem, nisi ex voluntate utentium arctius ad aliun ... Sed terminus non in omni propositione potest habere suppositionem simplicem vel materialis, sed ...'.

42. Note that I do not say 'only if' (or 'just in case', as in Putnam's formulation): being subordinated to the same concept is a sufficient condition for synonymy, in Ockham's view, but not a necessary one. See on this chap. 7, sect. 4.2 above, esp. pp. 240–42.

43. See Putnam 1988, p. 19 (the italics are Putnam's).
Conclusion

Concept theory has come to be crucial in recent philosophical work on cognitive sciences. Stephen Laurence and Eric Margolis open their well-known 1999 introduction to the state of the discussion on the topic by squarely asserting: "Concepts are the most fundamental constructs in theory of the mind." The current situation, however, is quite perplexing. After having reviewed and discussed the main approaches presently debated, the two authors candidly conclude that "no theory stands out as providing the best comprehensive account of concepts". Jerry Fodor, whose recent book *Concepts* is significantly subtitled *Where Cognitive Science Went Wrong*, thinks that important confusions about the very idea of a concept are at the root of what he takes to be a deep theoretical crisis in cognitive sciences: "most of what contemporary cognitive science believes about concepts," he writes, "is radically, and practically demonstrably, untrue." Who could deny, Eric Margolis adds in a contribution of his own, "that we are in need of some new theoretical options?" Well, if "new" options are needed, maybe old—and long-forgotten—ones could help too. The history of philosophy, here as on so many other questions, can be a precious source for intriguing suggestions and potential breakthroughs. And William of Ockham in this regard stands out as an exceptionally good prospect for concept theorists: he has an elaborate and sophisticated network of theses and arguments to offer about ontology, mind, thought and language, with the idea of 'conceptus' at the very centre of it.

The access to Ockham's doctrine, admittedly, is not immediate for today's readers. Not only are the texts in Latin with few translations available, but most importantly the theoretical background is very dissimilar from ours. With most of his colleagues, Ockham accepted the general adequacy of the Aristotelian tradition in philosophy, as well as the predominant authority of the Christian religious beliefs. His writings often responded to those of the scholastic heroes of the previous decades such as Thomas Aquinas or John Duns Scotus, and, of course, he had never read a line of Frege or Russell. The logic he had learnt at school was Aristotle's, augmented by the terminist developments of the thirteenth century, the theory of *suppositio* especially. As a consequence of all this, his theoretical vocabulary was different from ours all the way through.

Yet there is no fatal incommensurability in this case. Ockham's approach can still be of great relevance with respect to certain deep concerns that are at the forefront of today's interest in cognitive sciences and philosophy of mind. Some of the main puzzles we now face in these fields have to do with how to reconcile a thoroughly causal picture of the natural world with the intentionality and intelligence of the human mind, and this, as far as I can see, was Ockham's problem as well. In his small penetrating book, *The Elm and the Expert*, Jerry Fodor has called attention to the difficulty there is for a modern representationalist view of the mind of harmonizing three basic, and prima facie quite plausible, tenets:
CONCLUSION

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- that a sound psychological theory of thought cannot do without intentional terms;
- that the content of a thought depends upon some external—especially causal—connections it has with the world;
- that human intellectual processes typically have a syntactical character.

It so happens that Ockham’s theory saliently incorporates a close analog for each one of these: concepts are taken to be mental signs for things, their signification is made to depend upon causal connections, and they are insistently described as combinable with each other into syntactic units comparable to the sentences of language. How he strives to bring it all together in his mature actus-theory, while consistently subscribing to a nominalistic metaphysics, was the object of the present book.

Roughly summarized, what emerges is the following. The basic apparatus Ockham postulates is a complex causal network of mental states. Each encounter with real individuals is supposed to trigger chains of intellectual acts and habitus, ontologically identified with mental qualities. How semantics enters the picture depends on the roles these intellectual acts are supposed to play in the mental life of human beings. They can be described as signs in the logical sense, Ockham thinks, because they can be combined into more complex units, some of which can legitimately be seen as propositions and attributed a truth-value.

Whether a complex propositional act is true or false is made to depend upon its syntactical structure on the one hand, and the signification of (some of) its conceptual components on the other hand. And now a simple concept naturally gets a signification is basically presented as a causal story. The human mind is so built, according to the theory, that when the intelligent agent comes in perceptual contact with one or more individuals of the world, a special intellectual act is immediately produced in him, the ‘intuitive cognition’, which then launches various series of mental effects, giving rise, among other things, to a new mental act, the ‘abstractive’ one, which will be, in turn, the starting point of a temporally spread out chain of future similar acts, with the corresponding habitus in between. Simple concepts in this network are those abstractive acts of which no other abstractive act is a part. Which one of them signifies will be, in turn, the starting point of a temporally spread out chain of future similar acts, with the corresponding habitus in between. Simple concepts in this network are those abstractive acts of which no other abstractive act is a part. Which one of them signifies will be, in turn, the starting point of a temporally spread out chain of future similar acts.

The syncategorematic concepts, when they occur in actual thought, are the very logical operations of the mind, such as predication, quantification, and so on. The capacity to accomplish such operations must be supposed to be innate, in the Ockhamistic view, since it essentially belongs to every rational soul. But the actual occurrence of these syncategorematic acts normally requires the accompanying presence of some independently signifying mental categories, whether absolute or connotative.

Absolute concepts are those that equally signify all their significates without obligately referring to anything else. The sole connection they require among their significates is some degree or other of essential similarity. They are, in other words, natural kind concepts (with various degrees of generality available).

Simple connotative concepts, by contrast, are endowed with a hierarchically organized conceptual structure: they primarily signify some things, and secondarily—or obligately—signify some other things. Their significates, in other words, are arranged in ordered n-tuples. These concepts are normally produced within the mind by encounters with groups of individuals, rather than with isolated instances, and are thus made to signify, directly or obligately, all the individual participants to similarly ordered n-tuples. Despite their special hierarchical structure, they can legitimately be said to be simple acts of conceptual cognition in so far as no part of them is itself an independently signifying concept.

In the end, all human reasoning must amount, in Ockham’s theory, to combinations of such simple conceptual units, in accordance with the rigid constraints of an
innately implemented grammar. The representational value of thought is thus ultimately made to rest on the natural signification of our simple categorematic concepts, whether absolute or connotative.

With respect to the current discussions in philosophy of mind, this theory displays several interesting features. Let me briefly recall some of them:

(i) Epistemological realism. Although universals are not connoted as real things in the world, cognition by means of general concepts is considered as adequate in principle to reality. The theory admits, in particular, that things are really ordered out there in the world in various ways (temporal, spatial, causal, etc.), and that they can, in many cases, be known to be so ordered.

(ii) Representationalism in philosophy of mind. It is assumed that human thought is composed, in a fundamental way, of units or processes which are semantically evaluable (as referring to something else, for example) and syntactically structured.

(iii) A causal approach to cognition. The semantical values of the mental representational units ultimately depend upon their (often indirect) causal connections with the world. These units, in turn, play a causal role in the psychological life of the agent.

(iv) The idea that concepts are real mental states, or acts, rather than purely ideal objects grasped in the act of contemplation. This allows for an appreciable simplification of the ontology of the mental, by avoiding the position of a special mode of being for intentional objects.

(v) The postulation of an innate mechanism of abstraction, in virtue of which, in particular, a single encounter with a given individual suffices to produce in the human mind the formation of a general concept of the most basic level. This makes the postulation of innate categorematic concepts superfluous.

(vi) Semantical atomism and the compositionality of thought. The basic units of human thought are simple concepts, considered as signs. They naturally acquire their signification before occurring as the components of propositional or inferential sequences. Once significant, they are combinable with each other in determinate ways, and the semantical properties of the complex units thus produced are usually derivable from the signification of their components, given the structure of the whole.

(vii) The distinction between the signification of concepts and the referential function (or supposition) they happen to have in the context of a given propositional sequence. This is a crucial distinction for Ockham, and a very useful one indeed, which is unfortunately neglected in contemporary semantics (it does not correspond, in particular, to the famous Fregean couple of sense and reference).

(viii) The idea of connotation and its application to simple concepts. Some of the basic conceptual units in our mental equipment are attributed a hierarchized semantical structure. Among them, in particular, are some relational terms.

(ix) An innatist position with respect to syncategorematic concepts. The human mind is assumed to be innately capable of logical operations.

(x) An externalist conception of the meaning of words. The conventional signification of a spoken sound depends not upon what the speaker has in mind at the moment of utterance, but upon what happened at the original moment imposition. Some of Ockham's developments even suggest, as we saw in chapter 9, that a related form of externalism might extend to certain conceptual units, in so far as they could receive a stipulative signification in addition to their natural one.

(xi) The adoption of a strong nominalistic constraint. All the relata of the cogential process – agents, concepts, significates, and referents – are held to be singular entities.

The final picture we arrive at is quite remote, on the whole, from what has been the standard account of Ockham's approach to concepts in the last decades; much of this book has been devoted to a critical discussion of the predominant 'reductivistic' view, chiefly put forward by the American scholar Paul Vincent Spade. Ockham's language of thought, in this interpretation, was supposed to be a logically ideal language, and should, consequently, be devoid of ambiguities and redundancies; it should not simultaneously contain, in particular, a simple term and its complex nominal definition: the only simple terms it can have in the end (in addition to syncategoremata) are the indefinable – and non-relational – 'absolute' concepts. What we are now led to conclude is that this approach cannot legitimately be attributed to Ockham himself. Some ambiguities are indeed accepted by him in the language of thought, and some redundancies as well. Some connotative terms are relational ones, in particular – are admitted among naturally acquired simple concepts, and they are authorized to coexist in human minds with their complex definitions. Even the rejection of strict synonymy among simple concepts, which is explicit enough in some of Ockham's texts, cannot be counted as a central tenet in his doctrine.

Our whole understanding of Ockham's nominalistic programme has turned out to be at stake in these technical points. Spade reasoned that since Ockham's ontology admitted of only two categories of individuals in the world – substances and qualities – only absolute substance concepts and absolute quality concepts could be accepted by him as simple representational units in the mind; everything else in intellectual thought should be accounted for on this narrow basis. The success of Ockham's nominalism was thought to crucially rest on the reduction of the connotative terms, including all the relational ones, by means of nominal definitions. Which, in the end, was unfearable! The result of our inquiry, fortunately, is that Ockham's real aim was elsewhere. What the programme he puts forward is supposed to accomplish is to make it clear that none of the concepts and propositions that are needed for human knowledge carries with it an ontological commitment to any entity but singular substances and qualities. This is done not by reducing other concepts to absolute substances and quality concepts, but by showing that all the relata of the relevant semantical connections – including connotation – are singular substances and qualities.

In the last analysis, what stood behind the reductivistic interpretation of Ockham, it seems to me, was the misleading assumption that the language of thought, as he conceives of it, should be entirely transparent to the thinking agent. It is this presupposition, mainly, that made it difficult for the proponents of this interpretation to understand how a categorematic concept could be kept distinct from its definition in
Ockham’s approach. Yet the Venerabilis Inceptor, as we have found, did not take the conceptual content of our mental propositions to be thoroughly manifest to us in all cases. Not only did he accept ambiguities as possible in mentalese, but he is also committed to admit (as we have seen in chapter 5) that one can have a concept without knowing what its definition is, and without being clear as to what entities exactly this concept signifies, and what their ontological status is. The upshot is that the externalistic trend in Ockham’s theory of concepts should not be minimized: the signification of simple concepts is made to depend upon external relations that the agent might not be entirely aware of. And this ipso facto introduces some degree of opacity right at the heart of the mental language! This is not a problem for the Venerabilis Inceptor’s philosophical programme, because his goal was not to construe human thought as a logically ideal and semantically translucent system. It was to clean up the ontology.

Luc des Erables
December 2003

Notes
1. Laurence and Margolis 1999, p. 3.
2. Ibid., p. 71.
4. Ibid., p. viii (with Fodor’s italics).
7. Spade 1974 had already noticed the point, but he suggested that this was an inconsistency on Ockham’s part.
8. As argued above in chapter 7, section 4.2.

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1. Ockham’s works
Ockham’s philosophical and theological writings have been edited by the Franciscan Institute of St. Bonaventure University under the direction of Fr. Gedeon Gal in two series:

Quoted in the present book are the following:

Expositio in Librum Prima Sententiae [abrb.: Exp. in Prima Sententiae], F. Del Punta ed., OTh III, 1979.
Quaestiones in Libros Prima Sententiae [abrb.: Quaest. in Prima Sententiae], S. Brown ed., OTh VI, 1984, pp. 395-813.
Quaestiones in Libros IV Sententiarum [abrb.: Quaest. in IV Sententiarum], S. Brown ed., OTh VI, 1984, pp. 339-394.

2. Other references
N.B.- It has not seemed useful to include such classical authors as Aristotle, Thomas Aquinas or John Locke in the present bibliography. References to their works when they occurred were given in the standard ways in the relevant footnotes.
Adam de Wodeham. See Wood and Gal 1990.

Bibliography

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Adam de Wodeham. See Wood and Gal 1990.


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Peter John Olivi. See Pastau 1993.

Porphyry. See Mino-Palhaio 1966.


Reina, Maria Elena (2002), Il Città e l'Universo, Bari: Laterza.
Roger Bacon. See Fredborg et al. 1978.


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