

# Theories of cognition in the later Middle Ages

ROBERT PASNAU

*St. Joseph's University*



**CAMBRIDGE**  
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE  
The Pitt Building, Trumpington Street, Cambridge CB2 1RP, United Kingdom

CAMBRIDGE UNIVERSITY PRESS  
The Edinburgh Building, Cambridge CB2 2RU, United Kingdom  
40 West 20th Street, New York, NY 10011-4211, USA  
10 Samford Road, Oakleigh, Melbourne 3166, Australia

© Robert Pasnau 1997

This book is in copyright. Subject to statutory exception  
and to the provisions of relevant collective licensing agreements,  
no reproduction of any part may take place without  
the written permission of Cambridge University Press.

First published 1997

Author's corrections 2012

Typeset in Palatino

*Library of Congress Cataloging-in-Publication Data*

Pasnau, Robert.

Theories of cognition in the later Middle Ages / Robert Pasnau.

p. cm.

Includes bibliographical references and index.

ISBN 0-521-58368-3

1. Knowledge, Theory of – History. 2. Cognition – History.
3. Philosophy, Medieval. 4. Thomas, Aquinas, Saint, 1225?–1274.
5. Olivi, Pierre Jean, 1248 or 9–1298. 6. William, of Ockham, ca.  
1285–ca. 1349. I. Title.

B161.P37 1997

128'.2'0902 – dc20 96–36249

CIP

*A catalog record for this book is available from  
the British Library*

ISBN 0-521-58368-3 hardback

Transferred to digital printing 2003

Electronic publishing rights retained by author.

# Contents

<i>Preface</i>	<i>page</i> vii
<i>List of abbreviations</i>	x

Introduction	1
1 The philosophical-historical context	4
2 Thomas Aquinas and the theory of species	11
3 Challenges to the theory	18

## PART I: FUNDAMENTALS

1 Immateriality and intentionality	31
1 Cognition as intentional information	31
2 A materialist theory of sensation?	42
3 The intentionality criterion	47
4 Ockham on the intentionality criterion	60
2 Intentionality made mysterious	63
1 Physical, not intentional (Roger Bacon and William Crathorn)	64
2 Intentional, not physical (Olivi)	67
3 Existing, but not really (Peter Aureol)	69
4 From fictions to actions (Ockham)	76
3 Form and representation	86
1 The natural likeness account (William Crathorn)	89
2 Representation without resemblance (William of Auvergne)	101
3 Form and likeness in Aquinas	105
4 Causal connections	113
5 The act itself as likeness	121

## Contents

4	Passivity and attention	125
1	Cognition as a kind of being affected	126
2	Attending to the object (Olivi)	130
3	Judging and attending (Aquinas)	134
4	A mixed account (Scotus) and pure passivity (Ockham)	146

### PART II: REPRESENTATIONS AND REALISM

5	Are species superfluous?	161
1	Direct realism via action at a distance (Ockham)	162
2	Direct realism via spiritual attention (Olivi)	168
3	Explaining illusions	181
4	Species and parsimony	189
6	Aquinas and direct realism	195
1	The official position	197
2	The act-object doctrine	200
3	Two versions of representationalism	209
4	Through the species and to the world	213
7	The veil of species	220
1	Hercules and his image (Henry of Ghent)	221
2	Would God deceive us? (William Crathorn)	229
3	The species as a veil (Olivi)	236
4	Hercules returns (Ockham)	247
8	Word and concept	254
1	Word and concept in Aquinas	256
2	Concepts as acts (Olivi)	271
3	Abandoning <i>ficta</i> (Ockham)	277
	Conclusion: A new form of knowing	290

<i>Appendix A: The identity of knower and known (Aquinas)</i>	295
<i>Appendix B: Henry of Ghent and intelligible species</i>	306
<i>References</i>	311
<i>Index</i>	321

## Preface

**T**HIS is not a survey of later medieval theories of cognition but a study of some of the central aspects of the debate during that time. My primary focus is on two authors from the thirteenth century, Thomas Aquinas and Peter John Olivi, and one from the fourteenth century, William Ockham. Readers hoping to learn about other philosophers from this period will occasionally be rewarded, but more often disappointed.

The choice of these three figures was not arbitrary. I believe that Thomas Aquinas presents the most impressive and coherent statement of the dominant Aristotelian theory of cognition, and I believe that Peter John Olivi and William Ockham offer the most interesting and innovative challenge to that theory. In the chapters that follow, I argue that these two Franciscan philosophers developed a fundamentally new account of the workings of our cognitive systems. Their insight, in brief, was to see that a theory of cognition might be formulated without the sorts of representations that, on the standard view, served as intermediaries between us and the world. My pursuit of this theme has forced me to take a selective approach. Authors who were originally envisaged as playing integral parts in the study, in particular Henry of Ghent and William Crathorn, have been consigned to the supporting role that better suits their more-limited contributions. Other important figures from the period, in particular John Duns Scotus, did not extensively contribute to this particular debate. This study focuses, then, on what has struck me as the most important development in cognitive theory during the later Middle Ages. Such judgments must certainly be tentative, given the poverty of our current understanding of medieval philosophy, and they are, naturally, to some extent subjective. I hope and expect that, as we learn more about medieval philosophy, others will uncover aspects of the medieval debate over cognition that are equally significant and interesting.

This is not a survey, in part because there are all too many surveys of

## Preface

medieval philosophy and not nearly enough close studies of particular topics. I believe that within later medieval philosophy there is scarcely a single topic – no matter how well known – that is not crying out in need of careful study and criticism. For example, there is probably no part of Aquinas’s work that is better known and more widely discussed than his claim that sensible and intelligible species are the *quo* of cognition: not the objects of cognition, but that *by which* we come to know the world. Nevertheless, in Chapter 6 I argue that the standard (indeed, unquestioned) reading of this claim is badly mistaken. Such misreadings are spread throughout the study of medieval philosophy, in every corner. One needs only to pick a topic.

**M**Y own choice of topic came while studying at Cornell University. This work is a substantially revised and expanded version of my 1994 Ph.D. dissertation. (Together with Pasnau 1995a it entirely supersedes that work, aside from the translations included as an appendix to the dissertation, most of which I plan to publish elsewhere.) This book could not have been written without substantial help from a great many people. First and foremost, I am indebted to my advisor at Cornell, Norman Kretzmann. It would be wrong to say (as former students are sometimes tempted to say at such points in their careers) that I learned from Kretzmann everything I know about medieval philosophy. In fact, that would in a sense understate his influence, which manifests itself not in any particular substantive views that I hold (we disagree on numerous points of interpretation) but in the way I have learned to think about and write about philosophy. It is for this training that I am most grateful to him.

Many others have contributed to this work, either through their encouragement or through reading and criticizing some or all of the chapters. In particular, I want to thank Carl Ginet, Scott MacDonald, John Marenbon, Sydney Shoemaker, John Carriero, Jeff Hause, Paul Hoffman, Hannes Jarka-Sellers, Joe Moore, Dominic Perler, Dave Robb, Carol Roberts, Eleonore Stump, Martino Traxler, and an anonymous reader for Cambridge University Press. While at Cornell, I was fortunate to be a part of the Medieval Studies Program. A completion-year fellowship from the Mellon Foundation, through Medieval Studies, allowed me not just to complete the dissertation, but to turn the dissertation into a book. I have also read various chapters at philosophy departments throughout the country, as a job candidate, and I often received helpful feedback on those occasions. I want to give particular thanks to

## *Preface*

my colleagues at Saint Joseph's University for their support and encouragement.

I would not be studying medieval philosophy, and perhaps not philosophy at all, if not for Jim Ross's influence on me at the University of Pennsylvania. For this influence, I remain deeply grateful, but I am also left somewhat puzzled: what would I be doing now if Ross hadn't spent long hours with me, a mere undergraduate, discussing such obscure topics as Cajetan on Aquinas on Aristotle (compared to Armstrong) on universals?

Finally, I want to thank my parents, who didn't laugh when I told them I wanted to be a philosopher, and my wife, who I'm sure will always laugh when she thinks of me as a philosopher.

## Abbreviations

### PETER JOHN OLIVI

- II Sent.*      *Quaestiones in secundum librum Sententiarum* (1922–26, Jansen [ed.], in three volumes)  
*Quod.*        *Quodlibeta quinque* (Citations are to the 1509 Venice edition)  
*TDV*         *Tractatus de verbo* (edited in Pasnau [forthcoming], from the *Lectura super Iohannem*)

### THOMAS AQUINAS

(For convenience, citations to *DUI*, *InDA*, *InDMR*, *InDSS*, and *InPH* give, in brackets, the section numbers of the Marietti editions [for *DUI*, the Keeler edition]. Also, I have retained the conventional chapter numbering for *InDA*, rather than adopting the new numbering of the Leonine edition.)

- CT*            *Compendium theologiae* (Leonine v.42)  
*DUI*           *Tractatus de unitate intellectus contra Averroistas* (Leonine v.43)  
*In2Cor.*      *Super secundum Epistolam ad Corinthios lectura* (Marietti, 1953b)  
*InDA*         *Sententia libri De anima* (Leonine v.45,1)  
*InDMR*       *Sententia libri De memoria et reminiscencia* (Leonine v.45,2)  
*InDSS*       *Sententia libri De sensu et sensato* (Leonine v.45,2)  
*InDT*         *Super librum Boethii De trinitate* (Leonine v.50)  
*InJoh.*       *Super Evangelium S. Ioannis lectura* (Marietti, 1952)  
*InMet.*       *In duodecim libros Metaphysicorum Aristotelis expositio* (Marietti, 1971)  
*InPH*         *Expositio libri Peryermenias* (Leonine v.1\*,1)  
*InPhys.*      *In octo libros Physicorum Aristotelis expositio* (Marietti, 1954a)  
*QDA*         *Quaestiones disputatae de anima* (Robb, 1968)



## Abbreviations

QDM	<i>Quaestiones disputatae de malo</i> (Leonine v.23)
QDP	<i>Quaestiones disputatae de potentia</i> (Marietti, 1953a)
QDSC	<i>Quaestio disputata de spiritualibus creaturis</i> (Marietti, 1953a)
QDV	<i>Quaestiones disputatae de veritate</i> (Leonine v.22)
Quod.	<i>Quaestiones quodlibetales</i> (Marietti, 1956)
SCG	<i>Summa contra gentiles</i> (Marietti, 1961–67)
Sent.	<i>In quatuor libros Sententiarum</i> (Parma, 1856)
ST	<i>Summa theologiae</i> (Marietti, 1950–53) (1a = first part; 1a2ae = first part of the second part; etc.)

## WILLIAM OCKHAM

(All citations are to the (1967–89) edition, either the *Opera Philosophica* (= *OPh*) or the *Opera Theologica* (= *OTh*.)

ExPer.	<i>Expositio in librum Perihermenias</i>
ExPhys.	<i>Expositio in libros Physicorum</i>
ExPor.	<i>Expositio in librum Porphyrii de Praedicabilibus</i>
Ord.	<i>Scriptum in librum primum Sententiarum (Ordinatio)</i>
Quod.	<i>Quodlibeta Septem</i>
QPhys.	<i>Quaestiones in libros Physicorum</i>
QV	<i>Quaestiones Varias</i>
Rep.	<i>Quaestiones in libros Sententiarum (Reportatio)</i>
SL	<i>Summa Logicae</i>

## Introduction

OUR histories of Western philosophy pass in virtual silence over an era that they should celebrate. The later medieval period, in particular the thirteenth and fourteenth centuries, represents one of the great flowerings of creative philosophical activity. It was then that western Europe literally rediscovered philosophy, in the writings of Aristotle, a discovery that led to the renewal of systematic philosophical thought. Out of this ferment came work as deep and original as any that philosophy has since seen. One could never learn any of this, however, from our histories of philosophy; they tend to skip, with a few apologetic murmurs, from the fourth century B.C. to the seventeenth century. So, too, run our philosophy curriculum and the research interests of the professors who teach in our universities.

This may seem overstated: not that I have overstated our neglect of the period, which could hardly be overstated, but that I have overstated the value of later medieval philosophy. But in fact we aren't yet in a position to have an informed debate on the merits of the Scholastic era. This is not just, or even primarily, a matter of our not having the Latin texts (although a great many important texts remain in manuscript form, never edited) or our not having translations of those texts (although few of the most important works of the Scholastic period have been published in English translations). The primary impediment to our appreciating later medieval philosophy is that there has been no sustained tradition of sophisticated philosophical commentary on the period. Generations of our finest philosophers have illuminated figures like Plato, Aristotle, and the British empiricists, laboring to show that what looks obsolete remains interesting, and what looks confused is in fact cogent. No such attention has ever been paid to the Scholastic period, and for this reason more than any other the era's luster remains dull.

This study was written in the hopes of contributing to the renovation

## *Introduction*

of later medieval philosophy. The following chapters investigate closely related aspects of the Scholastic debate in philosophy of mind and epistemology. Questions in these areas were among the topics most widely debated by philosophers and theologians in the thirteenth and fourteenth centuries. The most sophisticated work during these centuries was written in the years from 1250 to 1350, the period I will be focusing on. But even within those one hundred years, there are too many authors and too many issues to be satisfactorily surveyed, let alone analyzed, within the limits of a single book. What makes the study of the medieval period even more difficult – but also more exciting and challenging – is that the works of hitherto obscure philosophers are constantly being edited and published on the basis of previously unread and even unknown manuscripts. Within the last ten years, new editions have been published of the works of Thomas Aquinas, John Duns Scotus, William Ockham, Henry of Ghent, Gregory of Rimini, Walter Chatton, Adam Wodeham, and William Crathorn – and this is just a partial list. In the case of the last three authors, the works edited were accessible before now only in manuscripts. Given this wealth of material, little of which has received philosophical attention, it would not be possible in a work of this size to give anything like a complete account of Scholastic cognitive theories. Instead, I have picked out what I take to be one of the most philosophically significant developments of this period.

My starting point in these investigations is Thomas Aquinas (1225–74), and my theme is the way Aquinas’s Aristotelian-based theory of cognition was challenged by later Scholastics, in particular by Peter John Olivi (1247/48–98) and William Ockham (ca. 1285–1347). I have sought, by looking at Aquinas through the eyes of his near contemporaries, to reach a clearer understanding of Aquinas’s own views. Just as important, I have tried to work out in detail the novel theories of mind offered by Olivi and Ockham. These two Franciscans, living a generation apart, offer similar challenges to Aquinas and traditional accounts of cognition. Both reject any analysis of thought and perception that postulates inner representations mediating between our cognitive acts and the external objects of those acts. Their alternative proposals eliminate all such intermediaries.

Along the way toward working out the details of their accounts, I take up many of the central problems (then and now) in the philosophy of mind and epistemology. Chapters 1 and 2 focus on the nature of intentionality and the relationship between immateriality and cognition. Chapter 3 discusses theories of mental representation, in particular

the roles of resemblance and causality. Chapter 4 explores the degree to which, in Aquinas and others, cognition was held to be passive. These chapters, which constitute Part I of this work, establish the fundamentals for what follows. In Part II, I take up the study's central theme, the critique Olivi and Ockham put forward against the standard Scholastic model of cognition. Chapter 5 lays out the forms of direct realism in perception that Olivi and Ockham propose, while Chapter 6 considers the extent to which Aquinas should be considered a direct realist. Chapter 7 explores some epistemological considerations, and Chapter 8 takes up the debate at the level of intellect.

In Part II the reader will meet the chief interpretive puzzle of this study. My analysis there seems to force a choice between two contrasting readings. First, one can attribute to Aquinas a sophisticated theory of perception and mental representation, in which case Olivi and Ockham must be read as contributing relatively little to the debate in these areas. Alternatively, one can attribute to Olivi and Ockham a significant insight into cognitive theory, in which case Aquinas must be read as having a much more naive theory of cognition than is usually supposed. There seems to be little middle ground available between these two options. I take the second path, arguing for Olivi's and Ockham's originality and, in the process, criticizing Aquinas's own approach.

The challenge Olivi and Ockham pose to the standard Scholastic account raises questions of enduring interest about the nature of mind and knowledge; the answers they give to these questions should be of considerable interest to philosophers today. This is not to say that in what follows the reader will find what is, from our perspective, a radically new account of cognition. It will be a surprise to many readers to find such a high level of philosophical debate taking place on these issues in the later medieval period. But although the thirteenth and fourteenth centuries are an unfamiliar time in which to place the discussions that follow, many of these discussions will all the same be familiar to modern readers, at least in broad outline. We are accustomed, for instance, to treating with suspicion any view that would mediate our knowledge of external reality. We are wary of postulating mental representations that would require for their interpretation some kind of further inner audience. But if the broad outlines of such arguments are familiar, I believe that there is much to be gained by looking at the details. In general it is by immersing ourselves in such details that we learn from the history of philosophy; our philosophical thinking is illuminated, most often, by the particulars of a given argument or theory

rather than by discovering an entirely new approach. In this introduction, I give a sketch of the medieval context and of the views of Aquinas, Olivi, and Ockham. This will clear the way for a consideration of the details that are to follow.

## 1. THE PHILOSOPHICAL-HISTORICAL CONTEXT

A central project for any philosophical account of human knowledge must be to understand how human beings acquire and process information about the world – the sorts of activities that I call cognition. Two different sorts of questions can be asked about the process of cognition. First are questions seeking descriptions – variously detailed versions of ‘How does the process work?’ Answers to these questions immediately raise a second kind of question, the epistemological kind: given that the process works like *that*, what are the prospects for human knowledge? In any study of human reasoning, these two kinds of issues are likely to overlap; they certainly did so during the medieval period. Epistemological questions – in particular, the problem of skepticism – become more and more prominent over the course of later medieval philosophy. But challenges to the scope of human knowledge typically rest on particular views about the mechanisms of cognition. Thus, we will see that characteristically epistemological issues, such as the possibility of illusion or deception, or the gap between appearances and reality, are tied to questions about the nature of intentionality, mental representation, and the causal connections between object and percipient. In Part II I discuss how worries about skepticism motivated new answers to these latter questions. But in the end, I argue that the real contribution of Olivi and Ockham is not that they give us a way of avoiding skepticism but that they give us a novel picture of the mind insofar as they describe cognition without relying on intermediary mental representations.

Philosophers today are not widely aware of the Scholastic debates in these areas. Thus Richard Rorty can credit the seventeenth century with having “invented” the veil-of-ideas epistemology, thereby giving rise to what he takes to be a new kind of skepticism. On Rorty’s account, the preoccupation of modern philosophy with skepticism can be traced to the doctrine that knowledge of the world is no more than our internal representations of that world. And he takes this view to have originated with Descartes and Locke.<sup>1</sup> Rorty is not alone in this account of history.

<sup>1</sup> Rorty (1979), p. 113. See also p. 136: “To think of knowledge which presents a ‘problem,’ and about which we ought to have a ‘theory,’ is a product of viewing knowledge

## *The philosophical-historical context*

J. L. Mackie, after laboring to find a coherent theory of ideas in Locke, remarks,

- i.1 We need not apologize for taking so much more trouble over this question than Locke himself did: however inadvertently, *he introduced into philosophical discussion* a topic that his successors have in general not been able either to cope with adequately or to leave alone.<sup>2</sup>

Recent work in medieval philosophy has shown how wrong such a historical claim is. Locke no more introduced the topic of mental representation into philosophy than did Mackie or Rorty themselves. Some four centuries before Descartes and Locke, Peter John Olivi was already criticizing Aquinas for postulating an inner concept or word (*verbum*) “in which real objects are intellectually cognized as in a mirror” (see 8.9).<sup>3</sup> Inner representations of this sort, Olivi charges elsewhere, “would veil the thing and impede its being attended to” (see Ch. 7, sec. 3).<sup>4</sup> So much for veil-of-ideas epistemology as a modern invention.

This utter unfamiliarity with the achievements of Scholastic philosophy is not a recent development. Thomas Reid, for instance, speaking in the mid-eighteenth century of Cartesian *ideas*, writes that “the vulgar know nothing about this idea; it is a creature of philosophy, introduced to account for and explain the manner of our perceiving external objects.”<sup>5</sup> But whereas no one outside of philosophy would postulate such entities, Reid thinks – astonishingly enough – that every philosopher has:

- i.2 All philosophers, from Plato to Mr. Hume, agree in this, that we do not perceive external objects immediately, and that the immediate object of perception must be some image present to the mind.<sup>6</sup>

According to Reid, if we are to take him seriously, these sensory ideas or images are things that all and only philosophers believe in. Perhaps, on Reid’s way of thinking, the Scholastics ought to be included among the vulgar, since there is hardly a single medieval philosopher who would have accepted the view described in i.2. The Scholastics were almost

as an assemblage of representations – a view of knowledge which, I have been arguing, was a product of the seventeenth century.”

2 Mackie (1976), p. 71 (my emphasis).

3 *II Sent.* q. 74 (III, 120).

4 *II Sent.* q. 58 ad 14 (II, 469).

5 *Essays on the Intellectual Powers of Man*, II.12 (quoted in Weinberg 1977, p. 33).

6 *Essays on the Intellectual Powers of Man*, II.7 (quoted in Haldane 1989b, p. 288). Cf. H. H. Price 1932, p. 19: “I think that all past theories have in fact started with sense-data. The ancients and the Schoolmen called them *sensible species*.”

## Introduction

entirely in accord that we do have direct access to the external world; debate in the thirteenth and fourteenth centuries focused on the further question about what sort of account of cognition is needed to preserve such direct access. Reid means to be establishing the novelty of his own theory of cognition. But as I will show, much of what is often taken to be novel in the seventeenth and eighteenth centuries was already old news by the fourteenth.

Getting the history of these problems right is important not because it matters who said what first but because the way we view contemporary problems in philosophy is often influenced by the way we view their history. For example, when a certain picture of the mind or of knowledge is taken to have emerged only during the seventeenth century (as in i.1), it is natural to suppose that this way of thinking is a mere historical accident, a rut into which the wheels of philosophy have fallen in recent centuries and from which we should extricate ourselves at all costs. I will show that these allegedly modern ways of thought have a much longer history than is ordinarily supposed. This suggests not so much that there is something right about these ways of thinking about the mind, as that there is something thoroughly natural about them. The implication is that philosophical thought about the mind and about knowledge is not in a rut but simply following the lay of the land.

This study will highlight a number of respects in which Scholastic authors were preoccupied with the same questions that early modern and contemporary philosophers have asked. But there are, of course, differences in emphasis. Perhaps the most important difference is that it is hard to distinguish in Scholastic philosophy a discrete field that we would call epistemology. The basic reason for this is that the Scholastics put little stress on understanding what justifies ordinary empirical knowledge (e.g., seeing that snow is falling). Knowledge, for them, was first and foremost associated with the demonstrative knowledge of the Aristotelian syllogism, and tremendous effort and ingenuity was spent in developing theories of logical inference. Other kinds of knowledge were understood on this model: philosophy and theology, in particular, were taken to be sciences of a particular sort, with their own evidential bases and their own fields of application.<sup>7</sup>

It is therefore only in passing, if at all, that the Scholastics try to define knowledge as true belief plus something else. Unacquainted with Plato's efforts in the *Theaetetus* (most of Plato's works were not

7 For a study of the way Aquinas bases his theory of knowledge on the Aristotelian syllogism, see MacDonald (1993).

available in the Latin West until the Renaissance), medieval philosophers had almost no interest in establishing necessary and sufficient conditions for knowledge.<sup>8</sup> Contemporary theories of knowledge – foundationalist, coherentist, internalist, reliabilist – mesh poorly at best with medieval approaches to the subject, because the medievals largely took it for granted that one’s knowledge, paradigmatically, concerns things for which one can give an argument (preferably, though by no means exclusively, a demonstrative argument). As a result, medieval philosophers focused their epistemological efforts on two projects: developing the logic of inference and deduction, and understanding the processes by which information about the world is acquired and processed. A further result of this perspective is that the epistemological problems that seemed so pressing to early modern philosophers – most notoriously, to Descartes – did not seem terribly important to most of the Scholastics. Occasionally, as we will see in Chapter 7, a Scholastic author will take seriously the problem of skepticism, a tendency that became more pronounced in the later medieval period. By and large, however, the Scholastics took it for granted that human beings do have knowledge; consequently, their theories of knowledge focus on the processes by which such knowledge is acquired.

If this is the Scholastic program, then one may well wonder how philosophically interesting it will be. Of what interest could medieval views be in a field like the study of cognition, which today is so closely tied to findings in psychology, neurobiology, computer science, and so on? The question is fair enough, and the premise of the question – that we know a lot about these matters that the medievals did not – is undeniable. In many respects, the authors I will be considering held utterly mistaken views about our cognitive mechanisms. They did not, for instance, understand the role of the retina in vision. Nor did they understand the nature of color, much less that of light. Nor did they know very much about the brain. (But then again *we*, at the end of the twentieth century, don’t know very many philosophically useful things about the brain either – a fact that has not deterred vigorous contempo-

8 William Heytesbury (fl. 1330s), for instance, asserts (but all too briefly) the claim that to know is to believe the truth with certainty. See the translation of Heytesbury’s *De scire et dubitare* in Kretzmann and Stump (1988). The first serious medieval attention I have found devoted to the problem of formulating a criterion for knowledge comes in a rather obscure place: the criticisms by Peter of Mantua and Cajetan of Thiene of Heytesbury’s definition of *scientia*. Both Peter and Cajetan, writing in the late fourteenth century, attack Heytesbury for failing to rule out cases of unwarranted true belief. On this subject, see Pasnau (1995b).



## *Introduction*

rary debate in the philosophy of mind.) In general, as we will see, the comparative lack of scientific learning in the Middle Ages does not make medieval philosophy of mind obsolete. In some cases, we will be able to see specific philosophical misunderstandings that could have been avoided had they known what we know. But more often the philosophical issues in question will be entirely separable from the medieval scientific framework. So far, at least, the developing neurosciences have settled hardly any questions concerning perception, mental representation, intentionality, and related issues. So the seven hundred years of scientific progress between us and them makes surprisingly little philosophical difference.

The scientific disadvantage medieval philosophers faced is in part compensated for by a methodological advantage. In contrast with much of philosophy after the medieval period, the Scholastics had the great virtue of being relatively uninterested in rhetoric and utterly unconcerned with compromising philosophical rigor for the sake of popular accessibility. They shared the view of the contemporary analytic tradition that the best philosophy will often be technical, difficult, and perhaps comprehensible only to specialists. Medieval philosophers addressed highly trained professional audiences, and so they were able to employ a precise, technical vocabulary that gives Scholastic philosophy, at its best, admirable clarity and depth. Most of all, Scholastic philosophers argued for their claims, and they knew a good argument (and a bad one) when they saw one. Ironically, these methodological features have strongly contributed to the period's neglect (who wouldn't rather read and teach the elegant prose of Descartes, Locke, or Hume?) and misunderstanding (isn't it all an exercise in logic chopping and terminological quibbling?). But such superficial impressions disappear once one makes the effort to get beneath the forbidding surface of a Scholastic disputation.

For the Scholastics, as for us, the study of cognition is not just an end in itself but a way of exploring the foundations of knowledge. The preeminent medieval branch of knowledge was not physics, as it is for us, but theology. Whereas today the most exciting areas of human inquiry concern subjects like subatomic particles and astrophysics, the medievals were most excited about problems and apparent advances in their efforts to understand God. Therein, they imagined, was the ultimate explanation of reality. All the writers I discuss were trained as theologians, and it is their ostensibly theological works that I most often draw on. But it was natural, in the course of these theological investigations, to consider epistemological questions. One reason for this is that

the very possibility of theology turned on an epistemological assessment of human cognitive capacities. The question of whether we can have knowledge of God presupposes more-general questions about the kinds of things we can know. Thus Scholastic theological works often begin with epistemology. We will see two instances of this in Chapter 7, when I discuss the beginning of Henry of Ghent's *Summa* and of William Crathorn's *Sentences* commentary.

Medieval theologians had another motive for pursuing a philosophical analysis of human psychology. St. Paul wrote that "the invisible things of him, from the creation of the world, are clearly seen, being understood by the things that are made" (Romans 1, 20). This influential passage helped establish the tradition of natural theology: inferring the nature of God from what can be known about the created world. Consequently, medieval theologians, seeking to understand God, took understanding this world to be a substantial part of their theological project. Naturally, it was human beings, creatures made in God's image, that were of most interest to theologians and most relevant to an understanding of God. Specifically, it was the human soul, the spiritual element of human beings, that was taken as a reflection of the divine. Bonaventure writes, for instance, that if you consider the soul's three powers "you will be able to see God through yourself as through an image."<sup>9</sup> And according to Aquinas, "the intellectual light in us is nothing other than a particular shared likeness of the uncreated light."<sup>10</sup>

So medieval theologians took particular interest in human cognition both as a way of establishing the epistemological foundations of theology and as a way of coming to know and to understand God. Both of these strands are present in medieval Christian philosophy from its beginnings in Augustine. In one of his earliest writings, the *Contra academicos*, Augustine sets out to refute the arguments of the ancient Academic school of skepticism, and thereby to establish the feasibility of rational inquiry into the truth. Later, in his *De trinitate*, Augustine discusses the human mind at length – not just to understand it in its own right but, more important, as a model for understanding the Trinity.

Augustine's influence dominated Western philosophy from the fifth century until the thirteenth, when it was suddenly confronted with the

9 "Considera igitur harum trium potentiarum operationes et habitudines, et videre poteris Deum per te tanquam per imaginem, quod est videre per speculum in aenigmate" (*Itinerarium mentis in Deum* III, 1).

10 "Ipsium enim lumen intellectuale quod est in nobis, nihil est aliud quam quaedam participata similitudo luminis increati" (*ST* 1a 84.5c).

challenge of Aristotelianism. Some of Aristotle's writings had been studied almost without break through the Middle Ages, namely, the *Categories* and the *De interpretatione*. But in the thirteenth century, interest in the entire Aristotelian corpus exploded. The remaining logical treatises began to be studied widely, and the bulk of Aristotle's remaining works became accessible through Latin translations. Aristotle's influence on the philosophy of this period was sudden and profound. Both philosophers and theologians leaped to incorporate Aristotle in their teaching and writing. By the middle of the century, Aristotle's place in the universities was secure. The study of his work dominated both theology and philosophy at the University of Paris.<sup>11</sup>

The most exciting theological–philosophical project of the time was to incorporate Aristotle's insights into the theological framework of Christianity. In practice, all the later Scholastics were heavily influenced by Aristotle and other non-Christian writers. This trend became increasingly difficult to resist as Christian theology developed along Aristotelian lines through the work of Aquinas, Albert the Great, Roger Bacon, and others. All the same, there was a movement of resistance. Methodologically, the most important and controversial question concerned what use theologians and philosophers should make of pagan philosophy. Bonaventure and Olivi, among others, often blamed non-Christian influences (e.g., Aristotle, Avicenna, Averroes) for the wholesale corruption of philosophy. Olivi writes at one point in his *Sentences* commentary,

- i.3 Aristotle does not seem to mean this in that passage, although I don't care what he meant here or elsewhere. For his authority and that of any infidel and idolater is nothing to me – especially in the case of matters that belong to the Christian faith or are very near to it.<sup>12</sup>

Aquinas, on the other hand, argued for the judicious use of non-Christian philosophy. Indeed, he writes that “it is impossible that things belonging to philosophy should be contrary to things belonging to faith.” And he adds the warning that “if anything is found in the say-

11 For discussion of these developments see chapters two through four in Kretzmann et al. (1982).

12 “Aristoteles etiam non hoc videtur ibi sentire, licet mihi non sit cura quid hic vel alibi senserit; eius enim auctoritas et cuiuslibet infidelis et idolatrae mihi est nulla, et maxime in iis quae sunt fidei christianae aut multum ei propinqua” (*II Sent.* q. 16 ad 6; I, 337). David Burr (1971) quotes this along with many other fascinating passages and brings out much of the complexity of Olivi's various (not always reconcilable) attitudes toward philosophy and non-Christian philosophers. See also Bettini (1958) and 4.4.

ings of the philosophers contrary to faith, this does not belong to philosophy but is rather an abuse of philosophy stemming from a defect of reason."<sup>13</sup>

This general disagreement over the proper use of non-Christian philosophy is reflected by a range of disputes on particular philosophical questions, including the areas of epistemology and cognition. In response to the comprehensive and powerful account of human cognition that Aquinas and others formulated during the 1250s and 1260s, a great many Scholastic authors – initially Bonaventure, and then Matthew of Aquasparta, John Peckham, Roger Marston, Henry of Ghent, Olivi, and others – attempted in various ways to formulate a more traditional and clearly Christian theory of human cognition. These late-thirteenth-century challenges to Aristotle and Aquinas did not succeed in displacing Aristotle's influence and authority. And whereas Aristotle remained the dominant philosophical authority for the Scholastics, Augustine's philosophical views became less and less authoritative. But in the fourteenth century, a new generation of critics – first John Duns Scotus and then Peter Aureol, Walter Chatton, Ockham, Crathorn, and others – renewed many of the charges against the Aristotelian-Thomistic theory that had been made by Olivi and others. The tone of the debate had changed by this time in that the issue was no longer the authority of Aristotle versus Augustine. But Scholastic philosophers remained concerned with the analysis of cognition. Questions about the character of mental representation, the immediacy of our apprehensions of reality, the degree to which cognition is active or passive, and the possibilities of human knowledge stayed at the forefront of the debate.

## 2. THOMAS AQUINAS AND THE THEORY OF SPECIES

The most compelling and comprehensive Scholastic formulation of Aristotle's theory of cognition is Thomas Aquinas's. But the resulting theory is too dependent on Aristotle – not to mention other Greek, Arabic, and earlier Scholastic discussions – to be considered entirely Aquinas's own.<sup>14</sup> There has been no systematic effort on the part of

13 "Unde impossibile est quod ea quae sunt philosophiae sint contraria his quae sunt fidei, sed deficiunt ab eis. . . . Si quid autem in dictis philosophorum invenitur contrarium fidei, hoc non est philosophiae, sed magis philosophiae abusus ex defectu rationis" (*InDT* 2.3c).

14 For a sketch of Scholastic treatments of Aristotle's theory of cognition before Aquinas see Z. Kuksewicz (1982). For a survey of Arab contributions see De Libera (1993); Jolivet (1988). On the Greek commentators see Sorabji (1990).

## Introduction

historians to distinguish original from derivative aspects of Aquinas's theory of cognition. This is understandable, because such a study would need to survey a staggering range of sources, from Aristotle himself through Alexander of Aphrodisias, Themistius, Avicenna, Averroes, William of Auvergne, Roger Bacon, and Albert the Great, to name just the most obvious places to look.<sup>15</sup> But however original one takes Aquinas's account to be, the theory must be considered a great achievement of synthesis. Aquinas took the various Aristotelian elements of cognition – as they were spelled out in more or less detail by various commentators on the basis of Aristotle's own notoriously murky remarks in the *De anima* – and developed an account that is not just coherent but philosophically deep and compelling. As ensuing chapters will show, this is not just the superficial appearance of the theory. There are of course ambiguities and confusions. But a close look also reveals deep insights into fundamental problems of epistemology and philosophy of mind. It is therefore natural to take Aquinas as a starting point for examining Scholastic theories of cognition.<sup>16</sup>

'Cognition' is Aquinas's most general term for the process of acquiring and processing information about the world through the senses and intellect. To cognize is not the same as to know, for Aquinas says that cognition can be false.<sup>17</sup> He distinguishes two broad levels of cognition: sensory and intellectual. At the sensory level, cognition is the product of physical organs, which are responsible for the activity of the five exterior senses and the internal senses of the brain. Among the latter are

15 René Gauthier's preface to the Leonine edition of *InDA* documents in detail Aquinas's reliance on earlier Scholastic sources, as well as on Averroes and Themistius: "Les recherches poursuivies depuis quelque 50 ans ont montré que, contrairement à ce que l'on avait longtemps cru, saint Thomas a disposé pour commenter le *De anima* d'un abondant matériel et qu'il a largement bénéficié du travail de ses devanciers" (p. 201\*).

16 It is however by no means inevitable that the discussion center around Aquinas. Katherine Tachau's valuable historical survey of theories of cognition (among other things) from 1250 to 1345 mentions Aquinas only in passing. Tachau sees Roger Bacon as the most influential proponent of the standard Scholastic theory of cognition (Tachau 1988, ch. 1). In the fourteenth century, moreover, it is clear that Aquinas's influence was not as great as might naturally be assumed. As the historian William Courtenay notes, "to deal with fourteenth century thought as a contrast between Aquinas and Ockham is to put the emphasis in the wrong place. The principal influence on Ockham was Scotus, who was as well the theologian with whom Ockham most frequently disagreed" (Courtenay 1987, p. 197).

Spruit (1994) greatly overstates his case when he speaks of "the profound transformation of the species doctrine at the hands of Thomas Aquinas" (p. 137).

17 As MacDonald (1993) points out; see, e.g., *ST* 1a 17.3c.

memory and *phantasia* (= imagination), where (respectively) past images are stored and new combinations of images composed. It is sensory cognition that is responsible for cognizing particular objects such as *this* horse.<sup>18</sup>

Intellective cognition, in contrast, does not involve the activity of any corporeal organ. Universals are the proper object of intellect. So whereas it is the senses that apprehend the particular horse, it is intellect that apprehends horseness. (See Chapter 8 for details.) Intellect, to put this more concretely, enables us to recognize that it is a horse we are looking at. Intellect can apprehend particulars but only indirectly.<sup>19</sup> The senses, on their own, apprehend just the particular, accidental qualities of the world. Intellect conceptualizes and categorizes these raw data. Aquinas, along with most other Scholastics, distinguishes between two powers of intellect, an active and a passive power. The active power of intellect, the *agent intellect*, is responsible for forming general concepts out of our sensory impressions. These concepts are received in what was known as the *possible intellect*: that part of intellect which, in virtue of receiving such concepts, is brought to a state of actually cognizing.<sup>20</sup>

Aquinas supplies us with what appears to be a criterion for being cognitive. He writes that cognizers do not just have their own form but are also "suited to have the form of another thing as well."<sup>21</sup> Everything, of course, has its own form. The substantial form of a thing is just its nature: the form of a stone, for instance, is what it is to be a stone. With only a few exceptions (God, angels, the human soul), all substances are composed of form and matter. So in the case of a particular stone, the metaphysical components of that stone are its matter and the form that organizes that matter. Cognizers are exceptional in that they are suited to have not just their own form but also the form of something else. What Aquinas means is that the human intellect, for instance, has its own form but also has the form of the thing it is thinking about. So the intellect of someone who is thinking about a stone thereby has two forms: its own form and the form of the stone.

18 On the senses see *ST* 1a 17.2, 78.3–4; *QDA* 13c; and especially *InDA* II.10–III.6 (my translation of which is forthcoming from Yale University Press).

19 See, e.g., *ST* 1a 86.1; *Quod.* 7.1.3.

20 On the distinction between agent and possible intellect, see *ST* 1a 79.3, 79.7. The best introduction to Aquinas's theory of intellect is in his "Treatise on Human Nature," in *ST* 1a qq. 75–89, esp. qq. 79, 84–86. The most detailed discussion comes in *InDA* III.7–12. For a more extended survey of Aquinas's philosophy of mind, see Kretzmann (1993).

21 *ST* 1a 14.1c (see 1.1).

## Introduction

On Aquinas's account, however, the mind takes on the form of a stone in some special way; he calls this intentional or spiritual existence, in contrast with natural existence.

- i.4 A spiritual alteration occurs in virtue of a species' being received in a sense organ or the medium in the manner of an intention, not in the manner of a natural form. For a species received in a sense in this way is not received in keeping with the existence that it has in the sensible object.<sup>22</sup>

The form of a stone exists in the mind but exists there intentionally. This is why the mind doesn't turn into an actual stone but has a cognition of the stone.<sup>23</sup> In Chapters 1 and 2, I consider what this intentional existence amounts to.

The notion of a species is crucial to later medieval theories of cognition. When Aquinas speaks in i.4 of a species being received in the sense organs, he isn't referring to species in the logical sense, as a class within a genus. Rather, species in this context are somehow representations of the thing cognized. (How exactly they serve as representations will be one of the chief topics of the chapters that follow.) The term *species* – Latin for form or appearance – is almost always left untranslated in modern accounts, a practice that makes sense in the context of theories of cognition, because the word has a technical meaning that is difficult to analyze, let alone translate in a word. A species might represent the specific nature of the object, but it might also represent its genus or an accidental feature of it. There were, according to the standard medieval view, three kinds of species: species in the air or other media between object and percipient (known as species *in medio*), species in the sense organs (sensible species), and species in the intellect (intelligible species). All cognition, Aquinas claims, takes place “through some species of the cognized thing in the cognizer.”<sup>24</sup> Such species were thought, on this account, to be generated by the object and multiplied through the

22 *InDA* II.14.268–73 [sec. 418] – see 1.6 for Latin text. Cf. *ST* 1a2ae 22.2 ad 3 (1.11); *InDSS* 18.206–10 [sec. 291] (1.4); *ST* 1a 78.3c (1.8).

23 See, e.g., *InDA* II.24.45–56 [sec. 553], III.13.37–48 [sec. 789]; cf. Aristotle, *De an.* iii.8, 431b30.

24 “Omnis cognitio est per speciem aliquam cogniti in cognoscente” (*I Sent.* 36.2.3sc). See also *ST* 1a 14.2c: “Ex hoc enim aliquid in actu sentimus vel intelligimus, quod intellectus noster vel sensus informatur in actu per speciem sensibilis vel intelligibilis.”

medium and the percipient. A causal chain of species, each one generated by the one before it, linked object and percipient.<sup>25</sup>

Two of the most problematic features of Aquinas's account of cognition concern these species. First, the species is not (in ordinary cases) itself the object of cognition but is that "in accordance with which" one cognizes; very often he calls the species that *by which* (*id quo*) an object is cognized.<sup>26</sup> The external object, for Aquinas, is what gets apprehended first. (One can, if one wishes, direct one's attention to the species and make them the object of cognition. But it takes a conscious effort to do so.)<sup>27</sup> The natural way to understand Aquinas's claim that the species is not what we see or understand is that he is rejecting a representational account of cognition – as proposed by Locke, for instance, when he says that "whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call *idea*";<sup>28</sup> or, recently, by Frank Jackson, who argues that "the immediate objects of (visual) perception are always mental."<sup>29</sup> Although we have yet to see Aquinas make any claims about what we *immediately* perceive (a qualifying word that evidently plays a crucial role in both Locke's and Jackson's formulations), still Aquinas's rejection of a representational account appears clear enough. But, as we will see in Part II, later Scholastics questioned whether Aquinas could coherently take such a view. And in Chapter 6, I argue that Aquinas does in fact treat species as a kind of

25 According to Roger Bacon, "all actions of things occur according to the multiplication of species and powers from the agents of this world into material recipients" (as translated by David Lindberg 1976, p. ix).

Henry of Ghent describes the theory in thorough detail: "A sense object (e.g., a color) first has natural existence in its object and is potentially active so as to generate something intentionally like it in the medium and, from the medium, in the visual organ. But [it does this] in accordance with the action of a light. . . . When this light is present, the color produces a species impressed on the medium contiguous with it, which is continually generated and spread straight out through the entire medium up to the organ of sight, in which organ a species is received from the air contiguous to it. Through that species a vision is formed – i.e., the action of seeing" (*Quodlibet* IV.21; 136vG).

Henry's description here accords in every detail with Aquinas's. Aquinas gives his own account more briefly at *QDP* 5.8c.

26 *ST* 1a 85.2c (see 6.1). For the species as *id quo* see, e.g., *ST* 1a 85.2sc; *QDSC* 9 ad 6; *InDA* III.8.264–79 [sec. 718]; *SCG* II.75.1550; *QDA* 2 ad 5.

27 "Sed id quod intelligitur primo est res cuius species intelligibilis est similitudo" (*ST* 1a 85.2c). On focusing on the species themselves, see *ST* 1a 76.2 ad 4, 85.2c.

28 *An Essay Concerning Human Understanding*, II.viii.8.

29 Jackson (1977), p. 1.



cognitive object. Although he denies that species are ordinarily the things we see and understand, he tends at the same time to explain cognition in terms of a perceptual-like relationship between our faculties and the species that inform those faculties.

The second problematic aspect of the species theory is Aquinas's continual insistence that species are likenesses of the things they represent. As a result of being informed by a species, the soul is assimilated to the thing it cognizes. It is in virtue of this assimilation that the cognition has the content it has – that is, is a cognition *of* one thing and not another.<sup>30</sup> But there are well-known problems with this sort of theory, and Aquinas offers little explicit guidance. Does he think that in the case of sensation there is literally something in the percipient resembling the external object? How? In color, in shape, or on a more abstract level? Further, the account suggests that this species will itself be perceived. If we don't actually perceive the species, in perceiving the external object, then it becomes less clear why the species should be thought to have the characteristics of the external object. As just discussed, however, Aquinas denies that the species is an object of perception. These problems are even more difficult in the case of intellective cognition; here the faculty is immaterial and the objects of cognition universal. In Chapter 3, I consider these issues in detail. My conclusion there is that, for Aquinas, mental representation is not entirely a matter of resemblance, and to the extent that resemblance is involved this has to be interpreted in a broad and open-ended manner.

In this book, I will often refer to species as representations and in general speak of mental representation. By the latter phrase, I should note, I mean to include perceptual representations as well as strictly mental representations – that is, representations in intellect. But there is a more important terminological point here as well. There is a sense in which it begs the question to speak of species as representations. To say that a sensible or intelligible species *represents* an object suggests the very picture of mind that Olivi and Ockham want to reject. What is suggested is that species will be signs – even pictures – conveying information about the world to some inner audience, the mind's eye. Hence, to characterize Aquinas's species as representations may seem to stack the deck against him from the outset, and to decide by terminological fiat how to resolve what I have characterized as the chief interpretive puzzle this book raises: whether to give Aquinas a sophisti-

<sup>30</sup> See, e.g., I *Sent.* 3.1.1c; II *Sent.* 3.3.4c; III *Sent.* 14.1.1.2c; IV *Sent.* 50.1.3c; SCG I.65.537; ST 1a 12.9c; *InDA* I.4.19–22 [sec. 43] (3.1).

cated or naive theory of species and (correspondingly) whether to give Olivi and Ockham a modest or decisive role in developing medieval theories of cognition.

These terminological points can't be treated lightly. An instructive case is that of Durand of St. Pourçain (d. 1334), an opponent of the species theory who wrote slightly before Ockham. Durand asks in his *Sentences* commentary "whether angels cognize things through their essence or through species." The issue, he says, is whether the species is a *representative* of the external object. It quickly becomes clear that Durand's argument against species rests on a very narrow interpretation of what it could mean for one thing to represent another. The example he immediately cites of one thing representing another is of someone's understanding a cause through the representation of its effect.<sup>31</sup> That – as Chapter 6 will show – is hardly the sort of example Aquinas would have used to illustrate the role of species. For an effect to represent its cause, the effect must be explicitly apprehended, and an inference to the cause must be made. This is precisely how Durand supposes species would operate.

Durand's first argument against sensible species goes as follows:

- i.5 It's clear, as follows, that species should not be postulated in the senses: Everything through which the cognitive power is led to another as through a representative is cognized first. But the species of a color in the eye is not cognized or seen by that eye first – indeed, it is not seen by it in any way. Therefore, sight is not through that species as through a representative led to anything else.<sup>32</sup>

The argument is straightforward: (1) For vision to take place through species, the species would have to be seen (first). But, obviously, (2) species are not seen (let alone seen first). Therefore, (3) vision does not take place through species. Clearly, it's the first step that's crucial here,

31 II *Sent.* d. 3 q. 6: "Utrum Angeli cognoscant res per suam essentiam, vel per species." "Responsio. Haec praepositio, per, potest denotare vel principium intellectivum, sicut dicimus quod homo intelligit per intellectum, vel illud quod est subiecti repraesentativum, sicut dicimus quod homo intelligit causam per effectum. . . . Et ideo quaestio solum est dubia secundo modo, videlicet utrum Angelus intelligat omnia per suam essentiam, tanquam per repraesentativum" (139rb).

For details of Durand's life and work, see Gilson (1955), pp. 473–76.

32 "Et quod non sit ponere speciem in sensu, puta in visu ad repraesentandum visui colorem ut videatur, patet sic, omne illud per quod tanquam per repraesentativum potentia cognitiva fertur in alterum est primo cognitum. Sed species coloris in oculo non est primo cognita, seu visa ab ipso, imo nullo modo est visa ab eo, ergo per ipsam tanquam per repraesentativum visus, non fertur in aliquid aliud" (II *Sent.* d. 3 q. 6; 139va).

especially because Aquinas and others agree that species are not seen. Durand's argument for that first step is based entirely on what he thinks is involved in one thing's representing another. Everything that represents something to a cognitive power is an object of that power, Durand says. But whatever is the object of a cognitive power is cognized by that power.<sup>33</sup> Plainly, these assumptions hold only on a certain narrow way of understanding representation. When we recognize that not all representations need be themselves apprehended, the argument collapses. The following situation is perfectly conceivable: *X* represents *Y* to *A*, and *A* thereby perceives *Y*, without *A*'s perceiving *X*. Durand adds later that "without doubt it seems absurd in itself that the cognitive power should be led to the cognition of something through a representative of which it is entirely incognizant."<sup>34</sup> But this will seem absurd only on a very narrow interpretation of the notion of representation.

Let me state explicitly, therefore, that in referring to species as representations I do not intend any such specific interpretation. The term should be taken to entail no more than that species do convey information about the world to our cognitive faculties. As for how the information is coded, and how it is received, I mean in terminology to remain neutral. Other, more-artificial terminology might be used to avoid undesirable connotations.<sup>35</sup> But 'representation' is the term we standardly use to talk about these topics, and it is also (the cognate of) the term the Scholastics standardly used. Rather than make changes in our terminology, then, I propose to shed light on that terminology.

### 3. CHALLENGES TO THE THEORY

Aquinas abruptly ended his twenty-some years of nearly constant writing in December of 1273, after a mystical experience that led him to say that "all I have written now seems like straw." He died on March 7, 1274, and less than fifty years later, on July 18, 1323, he was canonized

33 "Probatio maioris, quia quicquid se habet obiective ad potentiam cognitivam, ut est cognitiva, est ab ea cognoscibile seu cognitum. Sed omne quod repraesentat aliquid potentiae cognitivae se habet ad eam obiective (supplet enim vicem rei quam repraesentat, quae si secundum se praesens esset, haberet se obiective ad potentiam cognitivam)" (ibid.).

34 "Et sine dubio de se videtur absurdum quod potentia cognitiva ducatur in cognitionem alicuius per tale repraesentativum quod est sibi totaliter incognitum. Contrarium enim verissimum est, videlicet quod per notum ducitur in cognitionem ignoti" (ibid.).

35 For instance, the term 'cognitive vehicle' has been suggested to me.

in Avignon.<sup>36</sup> But although the ecclesiastical authorities were relatively quick to accept his saintliness, many of the views put forth in his writings were not so readily accepted by philosophers and theologians. His theory of cognition was not subject to the passion and controversy occasioned by some of his other claims. (The famous Condemnation of 1277, for instance, censured a number of views associated with Aquinas, in particular his position on the eternity of the world, the individuation of souls by matter, and the relationship of intellect and will.)<sup>37</sup> Still, his views on cognition received a sustained and philosophically penetrating criticism from a succession of Scholastic writers over the next seventy-five years.

### 3.1. *Peter John Olivi*

Peter John Olivi's philosophical work can be fully appreciated only in the context of his controversial life.<sup>38</sup> Like most of the great Scholastics of the thirteenth century, Olivi studied philosophy and theology at the University of Paris. Unlike the great thirteenth-century masters, however, Olivi never attained that highest academic status, that of a master of theology. Instead, he left Paris as a *baccalarius formatus*, presumably at the bidding of the Franciscan order to which he belonged, to be a lector at various chapter houses. Although it was not at all unusual for a scholar to stop short of the master's degree – especially a scholar obliged to follow the commands of a religious order – still, this truncated academic career has to be seen as one of the many respects in which Olivi was something of an outsider.

Despite never becoming a master at the University of Paris, Olivi took steps in that direction, having written at least parts of two commentaries on Peter Lombard's *Book of Sentences*. (Commenting on Lombard's *Sentences* was the medieval version of writing a Ph.D. thesis.) But these writings of Olivi's only contributed to his status as an outsider, for their controversial nature led to his works' being condemned and burned by the Franciscan authorities, both in his lifetime and after his death. In 1299, at a Franciscan general chapter meeting in Lyons, excommunication was ordered for anyone who possessed or read Olivi's work. This decree was repeated by the Franciscan minister general in

36 For Aquinas's life, see Torrell (1996), which greatly improves on Weisheipl (1974).

37 For a translation of the condemnation see Hyman and Walsh (1973), pp. 582–91. For discussion, see Wippel (1995), pp. 18–28.

38 For the details of Olivi's life, see David Burr (1976), (1989); Carter Partee (1960); Decima Douie (1932), pp. 81–94.

1319.<sup>39</sup> It was not Olivi's philosophical works that motivated this hostile reception but his involvement in the controversial Spiritual movement, which criticized mainstream Franciscans for interpreting the vow of poverty too loosely. "But for this," Carter Partee writes, "his speculative opinions would hardly have attracted much attention."<sup>40</sup> As a result of Olivi's outspoken association with this movement, however, many powerful Franciscans were eager to find evidence of heresy in his work wherever they could. Hence, the authorities condemned not just certain doctrines but rather Olivi's entire corpus.

Olivi's outright scorn for Aristotle and his cautious rapport with Augustine combine to produce an exciting and original body of philosophical work, which to date has received far less study than it deserves. Although other figures of Olivi's era (most notably, Bonaventure) shared his mistrust of the growing Aristotelian movement, no one worked so hard to formulate a new (we might say neo-Augustinian) systematic philosophy.<sup>41</sup> This is especially so in the area of human cognition. Olivi's longest and most polished philosophical work, his question-commentary on Book II of the *Sentences*, devotes lengthy discussions to human and angelic cognition and volition.<sup>42</sup> These writings are startling because they not only reject large parts of the Aristotelian theory of cognition but also refuse to accept the familiar Aristotelian terminology. Olivi rejects, for instance, the distinction between agent and possible intellect: "In our mind there are not multiple intellectual or volitional powers."<sup>43</sup> As we will see in Chapters 4 and 5, Olivi

39 See Burr (1976) for the most detailed attempt to reconstruct the controversies Olivi became involved in.

40 Partee (1960), p. 218. For a recent treatment of Olivi's involvement in the Spiritualist movement, see Burr (1989).

41 But see Jansen (1935), who discusses the respects in which it is an oversimplification to classify Olivi as an Augustinian.

42 These questions – of an almost exclusively philosophical nature – were edited by Jansen in three volumes. Olivi's question-commentary on the other three books of the *Sentences* has not survived in such good shape; what we do have has not been edited, for the most part, and appears from the titles of the questions to be much more theological in focus. (See Koch 1930 for a reconstruction of what this work contained.) Three of the philosophically most interesting questions from Olivi's commentary on Book I are edited in an appendix to volume 3 of Peter John Olivi (1926). For a list of Olivi's surviving work, see Pacetti (1954). See Gieben (1968) for a bibliography of published editions and studies on Olivi. No translations of Olivi's philosophical work have been published, although I have translated the material most relevant to this study in the appendix to Pasnau (1994).

43 "Hoc nobis est pro certo tenendum quod in mente nostra non sunt plures potentiae intellectivae nec plures volitivae" (*II Sent.* q. 55; II, 286). Elsewhere he notes that

also rejects the general Aristotelian account of cognition as a passive reception of information from the external world. Neither perception nor intellection, on Olivi's account, is brought about by an impression from without on our cognitive faculties. Rather, we actively attend to the external world; our thoughts and beliefs are the result of what he refers to, rather mysteriously, as a "virtual" reaching out to external objects.

Olivi seems to have been the first Scholastic philosopher to reject thoroughly the Aristotelian-based account of species as the medium of cognition. Henry of Ghent, at roughly the same time, was criticizing some of the technical details of the species account. (See Appendix B.) But Olivi was the first to take issue with the theory's fundamental assumption: that human access to the external world is possible only through the mediation of species that resemble and thereby represent reality. The Franciscan authorities, in their condemnations of Olivi's teachings, made specific reference to Olivi's rejection of species. In several instances, we are fortunate to have not just the condemnation but also Olivi's reply. Here is one such exchange:

i.6 To say that the soul cognizes nothing through a species different from the act of cognizing is false and contrary to the saints and the philosophers.

I accept this assertion as regards species existing in memory. But as regards species that are in the core [*acie*] of the intelligence, I have expounded the contrary without asserting it. Nevertheless, in lectures I always held and taught the common opinion, and because I don't much care about these philosophical matters, I am ready to retract the aforesaid exposition.<sup>44</sup>

Olivi's response accurately reflects the position he defends in his *Sentences* commentary. In question 74, in particular, Olivi accepts the existence of memory species; the first conclusion of that question is that "for the cognition or thought of absent objects, some species is necessary in

Augustine never draws such a distinction, despite having written a great deal about intellect and its acts. Nor, he adds, "are any of the holy and learned men of old found to have put forth or held this division. Rather, it has root only in the pagan Aristotle and in certain Saracens who were followers of his" (*ibid.*, q. 58 ad 13; II, 460–61).

44 "Dicere quod anima nihil cognoscit per speciem differentem ab actu cognoscendi, falsum est, et contra sanctos et philosophos.

"Hanc sententiam accepto quantum ad species existentes in memoria. Quantum autem ad species quae sunt in acie intelligentiae recitavi, non asserendo, contrarium. Semper tamen in scholis tenebam et docebam communem opinionem; et quia de istis philosophicis non multum curo, paratus sum revocare recitationem praedictam" (Laberge 1935, p. 128). See Burr (1976) on the circumstances of this charge and Olivi's reply.

place of the object."<sup>45</sup> But Olivi denies, as we will see in detail in Part II, that a species is needed when the object of perception or thought is present. There is no need for species as causal intermediaries between the cognizer and the object, nor are species needed to explain after-images or other kinds of nonveridical perception.

Olivi is therefore a direct realist in the strongest sense. On the one hand, he denies *causal* mediation: our cognitive faculties attend directly to the external object. On the other hand, he denies that there are any *cognitive* intermediaries between the agent and the external object. We get a clear summary of Olivi's position in a letter he wrote defending his work. After rebuking his opponents for mischaracterizing his account of cognition, he explains what he had actually said:

- i.7 But in one question . . . I recite at length a certain position that says that the soul's apprehensive powers are the total efficient cause of its acts, although objects operate jointly with them – not in the manner of an efficient cause, but in the manner of an object. And it is said in the same place that the powers' acts and the species that are in the core of the intelligence are altogether the same thing.<sup>46</sup>

Here Olivi first describes the idiosyncratic causal position he takes, in insisting that external objects are not an efficient cause but merely the objects or termini of cognition. The more important claim is the second, that he equates species with the act of cognition. This is what I call an *act theory* of cognition. According to Olivi cognition should not (except in the cases of memory and imagination) be analyzed into an inner act of apprehension and an inner object of apprehension. In the face of the Aristotelian tradition's distinction between (1) the cognitive power, (2) the inner representation (the species), and (3) the act of cognition, Olivi refuses to distinguish (2) from (3). The inner representation, on his account, just is the act of cognition. And adding species to this account doesn't just misanalyze the process but also leads to serious epistemological confusions, as we will see in Chapter 7.

As evidenced in i.6 and i.7, Olivi argues for his position with caution – as something that he had “expounded, without asserting” and as a philosophical matter he doesn't care much about. Such maneuver-

45 “Ad cognitionem vel cogitationem absentium sit necessaria aliqua species pro obiecto” (III, 115).

46 “In questione vero: an voluntas sit potentia activa . . . recito diffuse quandam positionem que dicit: quod potentie anime apprehensive sint tota causa efficiens actuum suorum: quanvis obiecta eis cooperentur: non per modum efficientis: sed per modum obiecti. Ibidemque dicitur: quod actus potentiarum et species que sunt in acie intelligentie sint omnino idipsum” (*Epistola ad R*, no. 12; *Quod*. f. 64r).

ing is natural for an apologetic epistle. But even in his *Sentences* commentary, Olivi advances his theory hesitantly. In his first treatment of the topic (q. 58), he advances the theory not as his own but as the view of “certain men” – clearly a polite fiction. It’s not until he returns to the topic in later questions (qq. 72–74) that he claims the theory as his own. (And even there, according to i.6, he was not really asserting the position.) This caution on Olivi’s part reflects both the novelty of his views and the conservativeness of his era. But the claims that Olivi had advanced with such tentativeness and that were greeted with such hostility would reappear in the next century, in the writings of a series of authors, such as Gerard of Bologna, Durand of St. Pourçain (see sec. 2) and John of Mirecourt.<sup>47</sup> William Ockham, in particular, would take up many of Olivi’s themes and advance them both more confidently and more systematically.

### 3.2. *William Ockham*

Until recently, Ockham has been credited with having begun the decline of Scholasticism, for putting philosophy (in Étienne Gilson’s words) “on the straight road to scepticism,” with the result that “medieval philosophy broke down.”<sup>48</sup> It’s now widely recognized that this view of Ockham’s work is badly distorted. A series of sophisticated philosophical and historical studies along with the recently completed critical edition of his theological and philosophical corpus have shown that Ockham’s work does not have the skeptical implications that were once attributed to it.<sup>49</sup> Indeed, far from bringing on the decline of Scholasticism, Ockham’s work was very much in line with the traditional Scholastic project of formulating a rigorous theology and philosophy within the framework of Aristotelian logic and metaphysics.<sup>50</sup>

Ockham’s writings are divided into two quite distinct groups: his early philosophical and theological work, and his later political work. It is the first group of texts that has a direct bearing on Ockham’s theory of mind and cognition. These were written from 1317 to 1324, while Ockham studied at Oxford and taught at the Franciscan house of stud-

47 On these and many other lesser-known figures, see Tachau (1988). For Durand and Mirecourt see also Maier (1967).

48 Gilson (1937), p. 90.

49 On the question of Ockham’s skepticism, see Adams (1987), pp. 588–601. Recent scholarship has downplayed even the extent of Ockham’s influence on later Scholasticism; see Courtenay (1987).

50 As Alfred Freddoso remarks, Ockham’s “ostensible agenda was a distinctly conservative one for an early fourteenth-century thinker” (William Ockham 1991, p. xx).



ies in London. The Scholastic period of Ockham's life ended in 1324, when he was called to Avignon to answer charges of heresy. He avoided censure on the charges initially put forth, but while in Avignon he became involved in another controversy, which led to his flight from the city and his excommunication. He took up residence in Munich, where he wrote his later political works. In 1347, he died there. The most important work from Ockham's early years, and by far his largest work, is his commentary on Lombard's *Sentences*. This work contains Ockham's most extensive thoughts on epistemology, ontology, and philosophy of mind. He later revised the first book of this commentary, which is known as the *Ordinatio*. The remaining, unrevised three books are called the *Reportatio*. Among his many other writings from this period are a set of *Quodlibetal Questions*, a lengthy textbook on logic (the *Summa Logicae*), and commentaries on Aristotle's *Physics* and logical treatises.<sup>51</sup>

The controversy Ockham provoked within the church is mirrored in his writing on epistemology and metaphysics. He is probably most famous for his nominalist theory of universals, but this is just one of many topics on which Ockham held novel views that remain of substantial philosophic interest. If one focuses on his theory of cognition, it is hard not to be struck by the similarities with Olivi's views. Ockham, however, defends a much broader program than did his Franciscan predecessor. He takes issue, for instance, with Aquinas's treatment of intentionality (see Ch. 2). He also takes on Scotus's influential division of abstractive and intuitive cognition and claims that Scotus had misdrawn the distinction. (I will have little to say on this subject, which has received extensive attention from other recent scholars.)<sup>52</sup> Although often a critic of earlier Scholastic Aristotelianism, Ockham himself comes to the defense of the characteristic Aristotelian claim that cognition is a passive reception of information from without. Perhaps responding in part to Olivi's criticism of this view, Ockham attempts to reconcile the Aristotelian account with Olivi's observations that cognition requires a focusing on, and attentiveness to, the object. (See Ch. 4.)

51 Adams (1987) gives a concise account of Ockham's life and works (pp. xv–xvii). For more information, see E. A. Moody (1967), although some of the details are out of date. Courtenay (1987) presents the most up-to-date findings and cites more-specialized biographical studies (pp. 193–96). Ockham's *Sentences* commentary has not been translated, except for scattered pieces. Freddoso and Kelley have translated the *Quodlibetal Questions* (William Ockham 1991). Loux, Freddoso, and Schuurman have translated the first two parts of the *Summa Logicae* (William Ockham 1974, 1980). Boehner has collected a number of shorter translations in William Ockham (1957).

52 See, e.g., Tachau (1988); Adams (1987) ch. 13; Day (1947).

## Challenges to the theory

It is difficult to assess the extent of Olivi's influence on Ockham. Because Olivi's work had been condemned and confiscated by the Franciscan authorities, it is not clear whether Ockham would have had access to it. And although Ockham often subjects Aquinas, Henry of Ghent, Scotus, and others to direct criticism, sometimes quoting verbatim from their writing, it is difficult to find places where he undeniably has Olivi in mind. Nevertheless, the similarities in their views are striking. Both, for instance, reject the distinction between agent and possible intellect; like Olivi, Ockham claims that there is no real or even conceptual distinction of powers in the soul.<sup>53</sup> Olivi and Ockham also give the same account of the Aristotelian category of quantity: both deny that the quantity of a body is anything really distinct from its substance and qualities.<sup>54</sup>

Perhaps their most striking area of agreement is their rejection of species in the cognitive process. Ockham, too, sought to make the connection between cognizer and external object thoroughly direct and, like Olivi, rejected the existence of any sort of intermediaries, even merely causal ones, between the act of cognition and the object cognized. In this respect, however, Olivi and Ockham settled on what appear to be very different kinds of accounts. Whereas Olivi claimed that a kind of outward-directed "virtual attention" brings about our apprehensions of reality, Ockham argues for action at a distance. Physical objects make a direct impression on our sense organs, he claims, without necessarily making any kind of impression on the intervening medium. (See Chapter 5.) He thoroughly rejects the doctrine of the multiplication of species *in medio* (see sec. 2).

While eliminating species *in medio* in favor of action at a distance, Ockham also eliminates sensible and intelligible species. Like Olivi, he advances an *act theory* of cognition: there is, he says, no need for both the act of cognition and an internal object of that act.

- i.8 No prior assimilation through a species is required before an act of intellectually cognizing. Rather, the assimilation suffices that comes about through the act of intellectually cognizing, which is [itself] a likeness of the thing cognized.<sup>55</sup>

53 *Rep.* II.20 (*OTh* V, 442): "intellectus agens et possibilis sunt idem omnino re et ratione"; cf. *Ord.* 3.3 (*OTh* II, 430), *Ord.* 3.6 (*OTh* II, 520).

54 See Adams (1987) ch. 6. Anneliese Maier (1955) argues that Ockham was aware of Olivi's position. See also Tachau (1988), p. 130.

55 *Rep.* II.12–13 (*OTh* V, 295–96). See 3.26 for Latin text and further discussion. This section of Ockham's *Sentences* commentary (II.12–13) contains his most detailed

Species, according to Ockham, aren't required as likenesses of an external object, because the act of cognition (i.e., "the intellection") is itself a likeness. The internal object (i.e., the species) is redundant. At this point, Ockham's famous razor swings into action: entities should not be multiplied without necessity, so species ought not to be posited. The position he rejects is a version of what philosophers today often call the *act-object doctrine* – namely, an account of acts of cognition in terms of a relationship to some internal object of apprehension. On Ockham's account, there is no need for anything beyond the act itself. Sensing red, for instance, is not a relation between an act of sensing and an internal (red?) species. Explaining what it means for intellect to make something actually cognized, Ockham says that "this is not to make an object that is cognized but to make a cognition by which it is cognized."<sup>56</sup> The result, for Ockham as for Olivi, is that the external object is what we immediately cognize:

- i.9 In the case of no intuitive apprehension, neither sensory nor intellectual, is a thing with any sort of existence whatsoever established as some medium between the thing and the act of cognizing. Rather, I say that the thing itself immediately, without any medium between it and the act, is seen or apprehended.<sup>57</sup>

This is the theoretical breakthrough that will hold center stage in the chapters that follow. Aquinas, I will argue, was committed, as were most Scholastics, to introducing such intermediaries into the cognitive process. Olivi and Ockham deserve substantial credit for attempting to displace this seductive but misleading picture of the mind. The importance of this new way of thinking about cognition lies not in the details of the causal connections that they postulate between mind and object. Nor is it that they are in a better position to avoid skepticism; I will argue that they are not. What is instead important is their conceptual insight into the shape that a theory of cognition might take. Each criticizes the standard theory for placing inside the percipient a further

discussion of the species theory, and also a great deal of other interesting material regarding cognition. Substantial excerpts have been translated in Hyman and Walsh (1973), pp. 670–79; and also in the appendix to Pasnau (1994).

56 "Intellectus facit illud esse intellectum quod prius erat intellectum in potentia. Et hoc non est facere obiectum cognitum, sed hoc est facere cognitionem qua cognoscitur" (*Ord. d. 36; OTh IV, 551*).

57 "Unde dico primo quod in nulla notitia intuitiva, nec sensitiva nec intellectiva, constuitur res in quocumque esse quod sit aliquod medium inter rem et actum cognoscendi. Sed dico quod ipsa res immediate, sine omni medio inter ipsam et actum, videtur vel apprehenditur" (*Ord. 27.3; OTh IV, 241*).

### *Challenges to the theory*

percipient – an audience capable of enjoying the representations forming within us. Each, after recognizing that this was the story behind the species theory as standardly formulated, replaces that story with an account on which the act of thinking alone, without any species as internal object, is all that is needed to account for cognition.



*Part I*

**Fundamentals**



## Chapter 1

# Immateriality and intentionality

THIS study begins with the theoretical foundations of Scholastic accounts of cognition and moves toward dealing with the way those foundations support the more strictly epistemological interests of the later thirteenth and fourteenth centuries. My point of departure, in this and later chapters, is Aquinas's account of cognition; in this chapter, I begin with his attempt to specify a criterion for a thing's being cognitive. Assessing this criterion and Ockham's criticisms of it will lead us to focus on Aquinas's conception of intentionality and the link he sees between intentionality and immateriality. My claim is that Aquinas uses all three of these technical terms – 'cognition,' 'intentionality,' 'immateriality' – in surprising and interesting ways. Interpreters both medieval and modern have misunderstood this, and this misunderstanding has led both would-be critics and would-be followers astray.

### 1. COGNITION AS INTENTIONAL INFORMATION

Aquinas's philosophical account of cognition is founded on highly abstract views about the nature of mind and representation. Perhaps surprisingly, the best place to look for these views is not in his lengthy discussions of the human soul and its sensory and intellective faculties but in his discussions of God's knowledge. The reason for this seems to be that, whereas Aquinas is able to rest his accounts of human cognition on the evidence of observation and introspection, no such help is available in discussing God's cognition. In these theological questions, Aquinas is forced to extrapolate from the evidence of human cognition, and in that process he formulates general and abstract premises about the nature of cognition.

Near the beginning of the *Summa theologiae*, in the course of considering whether there is knowledge (*scientia*) in God, Aquinas gives the following criterion for being a cognizer:



## *Immateriality and intentionality*

- 1.1 The cognizant are distinguished from the noncognizant in this respect, that the noncognizant have nothing but their own form alone, whereas a cognizing entity is suited to have the form of another thing as well. For the species of the thing being cognized is in the one cognizing.<sup>1</sup>

As usual in Scholastic discussions of cognition, species play a central role here. Cognition requires the form of the cognized object to be in the cognizer; the species is that form.<sup>2</sup> (For a discussion of why Aquinas should have conceived of mental representations as *forms*, see the beginning of Ch. 3.) Not everything is suited to take on the form of something else, however. Some things have only their own form and are not as able to receive impressions from without. This, according to Aquinas, is what distinguishes the cognizant from the noncognizant. Only the former are suited to be informed (in the literal, Aristotelian sense).

It seems plain that Aquinas means 1.1 to be a criterion for cognition. That is, he seems to want to give both necessary and sufficient conditions for being cognitive, to specify (in other words) a characteristic possessed by all and only cognitive things. Only such a characteristic could be rightly said to *distinguish*, as Aquinas puts it, cognizers from noncognizers. But if this is indeed Aquinas's intent, then he seems, at first glance, to have failed. As a counterexample to 1.1, taken as a criterion, consider water's becoming hot.<sup>3</sup> Aquinas would apparently have to grant this as a counterexample. Following the standard medieval Aristotelian analysis, he conceived of change as the reception of a new form.<sup>4</sup> If the reception of a form is construed this widely, then almost anything can receive the form of something else. This point was made, in fact, by William Ockham. After quoting 1.1 verbatim, Ockham argues that

- 1 "[C]ognoscentia a non cognoscentibus in hoc distinguuntur, quia non cognoscentia nihil habent nisi formam suam tantum; sed cognoscens natum est habere formam etiam rei alterius, nam species cogniti est in cognoscente" (*ST* 1a 14.1c).
- 2 "Omnis cognitio est per speciem aliquam cogniti in cognoscente" (*I Sent.* 36.2.3 sc); "Ex hoc enim aliquid in actu sentimus vel intelligimus, quod intellectus noster vel sensus informatur in actu per speciem sensibilis vel intelligibilis" (*ST* 1a 14.2c).
- 3 The example is taken from Marilyn Adams's illuminating discussion of this material: Adams (1987) pp. 1014–21.
- 4 See, e.g., *InDA* II.24.19–22 [sec. 551]: "Omne enim patiens recipit aliquid ab agente secundum quod est agens; agens autem agit per suam formam et non per suam materiam; omne igitur patiens recipit formam sine materia."

## Cognition as intentional information

- 1.2 it no more belongs to the nature of a noncognizant entity not to have a form different from its own than it belongs to the nature of a cognizant entity. For the noncognizant can receive something from another just as the cognizant can.<sup>5</sup>

If this is the correct construal of Aquinas's criterion then, given his broad understanding of receiving forms, the criterion appears unsatisfactory.

But Ockham's criticism in 1.2 is unfair, because Aquinas's criterion can and should be understood more narrowly. Although this is not made clear in 1.1, Aquinas avoids counterexamples of the above sort by restricting the reception of forms to a certain kind of reception, namely, that of intentionally existing forms. (Aquinas may have meant to suggest as much in the last sentence of 1.1 by speaking of *species* rather than of forms in general.) Intentional existence, for Aquinas, gets contrasted with natural existence. Forms that exist in the former way have no "fixed existence in nature"; they lack "true existence."<sup>6</sup> Crucially, a form received intentionally is received in a manner different from that in which the form existed in the external object:

- 1.3 The apprehensive power is not drawn to a thing as [that thing] exists in itself. Rather, it cognizes it in virtue of an intention of the thing, which it has or receives in itself in its own manner.<sup>7</sup>

When something is made hot, the heat exists naturally or materially in the recipient. But in the case of someone's thinking about heat, the intellect is not thereby made hot. Rather, heat is received in the intellect according to intentional existence. Aquinas describes the distinction as resting *in modo recipiendi* – in the manner in which the form is received. A form that exists naturally in the recipient has the same manner of existence as it has in the agent; a form that exists intentionally in the recipient exists differently than it did in the agent. The transfer of heat, therefore, is a paradigm case of alteration and reception due to natural

5 "[N]on est magis de ratione non cognoscentis non habere aliud quam suam formam quam de ratione cognoscentis, nam ita potest non cognoscens recipere aliquid ab alio sicut potest cognoscens" (*Ord.* 35.1; *OTh* IV, 425).

6 "esse ratum in natura" (*QDSC* 1 ad 11); "Sunt enim quaedam accidentia quae non habent esse vere, sed tantum sunt intentiones rerum naturalium" (*I Sent.* 8.5.2 ad 4). Cf. *IV Sent.* 1.1.4.2c.

7 "Vis autem apprehensiva non trahitur ad rem secundum quod in seipsa est; sed cognoscit eam secundum intentionem rei, quam in se habet vel recipit secundum proprium modum" (*ST* 1a2ae 22.2c). See also *IV Sent.* 49.2.1c.

## *Immateriality and intentionality*

existence, because heat exists in the object heated in the same way as it exists in the heating agent. (They are both hot.) The perception of color, in contrast, is due to intentional existence. The eye, when it receives the form of a given color, does not thereby become that color but takes on the species of that color only intentionally.<sup>8</sup> (Keep in mind that for a subject to receive a form in a certain manner, for Aquinas, means the same as for that form to exist in a certain manner in that subject. He moves freely between these two ways of speaking, as in 1.8 below.)

We can therefore rule out the counterexample of being heated by restating the proposal of 1.1 as follows:

Something is cognitive iff it is suited to have not just its own form but also the *intentionally existing* forms of other things.

When Aquinas's account is understood in this way, Ockham's objection (1.2) can quickly be dismissed. Only if something were to receive the form of heat without thereby becoming hot would it count as being cognitive. There is considerable textual support for restating Aquinas's criterion as above. Later in the *Summa theologiae*, for instance, he draws the distinction between natural and intentional existence and attributes the latter to the sensory reception of forms. He explicitly notes, at that point, that if there were not this difference in the manner of receiving forms, then there would be no way to distinguish sensation from ordinary cases of reception: "[I]f a mere natural alteration were to suffice for sensing, then every natural body would sense when altered."<sup>9</sup>

It is illuminating to notice that Aquinas's position, as revised, suggests Franz Brentano's famous criterion for the mental – not surprisingly, since Brentano claimed to have been borrowing from the Scholastics and from Aquinas in particular. Brentano says that "every mental phenomenon is characterized by what the Scholastics of the middle ages called the intentional (or mental) inexistence of an object. . . . Every mental phenomenon includes something as object

8 On how the eye receives colors, see IV *Sent.* 44.3.1.3c, ad 2; *ST* 1a 78.3c, 1a2ae 22.2 ad 3; *SCG* II.59.1355; *InDA* III.2.111–26 [sec. 590]; *QDSC* 1 ad 11. Chapter 3 takes up in detail the question of how species resemble their objects.

9 "Ad operationem autem sensus requiritur immutatio spiritualis, per quam intentio formae sensibilis fiat in organo sensus. Alioquin, si sola immutatio naturalis sufficeret ad sentiendum, omnia corpora naturalia sentirent dum alterantur" (*ST* 1a 78.3c). Much the same line of reasoning is presented at *ST* 1a 84.2c and, in more detail, at *InDA* II.24.18–59 [secs. 551–53].

within itself.”<sup>10</sup> Brentano’s account is similar to Aquinas’s not just because it borrows the concept of intentional existence. Brentano is also indebted to the Scholastics for the notion that what is criterial for something’s being a mental phenomenon is that the cognizer have existing within itself, *somehow*, the very object being apprehended. By ‘inexistence,’ Brentano means *existence within* not *nonexistence*. Where he speaks of the intentional inexistence of the object, Aquinas speaks of the object’s form existing intentionally within intellect. Notice, in particular, that each treats intentionality as a kind of *existence*. (Current usage, in contrast, treats intentionality as the property of having representational content.) Each has the view that this sort of existence is somehow of the essence of cognition.

There is a further apparent similarity between Aquinas and Brentano. For Brentano, the intentional is a sign of the realm of the mental, where the mental is contrasted with the physical. It would appear, as we will see, that Aquinas holds the same view. But in fact, I will argue, Aquinas sees no incompatibility between intentionality and physicality. Even though intentionality, for Aquinas, is a mark of cognition, it is not restricted to the nonphysical. Aquinas does, it is true, associate the *mental* with the nonphysical.<sup>11</sup> But although, on this terminology, Aquinas might agree with Brentano in dividing the realm of the mental from that of the physical, he would not agree that intentionality is restricted to the mental.

Note that in the passage just quoted the senses are “a corporeal power.” On Aquinas’s view, I will be arguing, intentionality and therefore (according to 1.1) cognition can occur in wholly corporeal or physical entities. This claim is controversial, and part of what causes the controversy is uncertainty about the meaning of terms like ‘physical’ and ‘material.’ Let me state explicitly, then, that I use the expression ‘wholly physical’ in its modern sense, to refer to objects that are entirely material (as philosophers would now put it), lacking in anything spiritual (again, as philosophers would now put it).<sup>12</sup> Human beings are

10 Brentano, *Psychology from an Empirical Standpoint*, p. 88. On the Scholastic origins of Brentano’s theory of the intentional, see Haldane (1989a), Hedwig (1978), Marras (1976), Spiegelberg (1976).

11 Although Aquinas does not often use *mentalis* as a technical term, it’s clear that for him, strictly speaking, it refers to the operations of intellect: “Sed sciendum quod modus naturalis humanae cognitionis est, ut cognoscat simul per *vim mentalem* quae est *intellectus*, et corporalem quae est *sensus*” (*In2Cor.* 12.1).

12 Here, of course, I haven’t explained very much; I’m just appealing to our contemporary grasp of what ‘material’ or ‘physical’ means. One might complain that this

not wholly physical, according to Aquinas, on account of the rational part of soul. But I will argue that Aquinas does hold a theory of sensation that is wholly physical – a theory of the sort that a modern materialist could love. Part of what makes this claim confusing, as we will see, is that Aquinas does not think the senses are entirely material (in his sense) or entirely nonspiritual (again, in his sense). For Aquinas, I will argue, something can be immaterial and spiritual (in his senses) and still wholly physical (in our sense). For this reason, I prefer using the term ‘physical’ to speak of Aquinas’s materialist theory of sensation (as we would call it).

Another confusing aspect of this issue is that something can be wholly physical and still be composed of matter and form. Sensible species, indeed, are forms, yet I will claim that they are part of a wholly physical sensory power and are what bring about the wholly physical event of sensation. (By ‘wholly physical event,’ I mean an event that consists entirely in the action of wholly physical powers. Note that I don’t mean by this definition to rule out nonphysical causes of such events. Aquinas thinks God is always a partial cause of everything.) We can think of a form as material – or, better, as physical – if it is the form of something that is wholly physical.

Aquinas, I will argue, believes that intentionality and hence cognition can occur in wholly physical entities. This is the view I call *semimaterialism*. A semimaterialist is anyone who believes that cognition is possible in material things. The term marks what strikes me as an important distinction in theories of mind and cognition. On the one hand, one can reject materialism in the case of humans and further claim that no material thing can be cognizant. Or one can reject materialism in the case of humans yet think that some material things could be (or are) cognizant. Such a thinker is a semimaterialist. My claim will be that, for Aquinas, the process of sensation in all animals is wholly physical and that Aquinas is therefore a semimaterialist. Notice, however, that I am not arguing that Aquinas thinks nonhuman animals are wholly physical. I am inclined to believe that that is his view, but I am not going to take a position on the question here. My only claim is that

maneuver is unsatisfactory, on the grounds that our contemporary grasp of the concept of materiality is confused or obscure. (One might, for instance, follow Noam Chomsky in arguing that we call things physical as soon as we understand them and that the term has hardly any more definite meaning than that; see, e.g., Chomsky 1995.) But such concerns notwithstanding, the present approach should give enough content to the notion of *physical* to clarify how my reading of Aquinas differs from other prominent lines of interpretation.

sensation is a wholly physical process. I assume that it follows from this that sensation and (therefore) cognition can occur in wholly physical entities.

The semimaterialist thesis may seem untenable for Aquinas, at least *prima facie*, because he explicitly and repeatedly links intentional existence with immaterial and spiritual existence. Indeed, in the context of cognition, Aquinas tends to treat them almost interchangeably. Consider, for instance, the following passage:

- 1.4 A natural body receives forms in accordance with natural and material existence. . . . But the senses and intellect receive the forms of things spiritually and immaterially, according to a certain intentional existence.<sup>13</sup>

Here, if the three expressions are not identical, they at least seem to be mutually entailing. (Textual evidence for this near identity will accumulate as we go on.) If correct, such a near identity would seem to be obvious proof that intentionality does require immateriality. What I want to dispute is not this near identity but the meaning of the terms 'spiritual' and 'immaterial' in these contexts. Spiritual and immaterial existence, I suggest, are not what they seem to be, and hence Aquinas's use of these concepts is not incompatible with semimaterialism.

The first step to establishing these claims is to insist that intentional existence means nothing more than what Aquinas says it does. And what he says, as I have already suggested (1.3 and ensuing discussion), is that the intentional existence of a form is distinguished by the fact that the form comes to exist in the recipient in a manner different from how it existed in the original subject. To put the point differently, a form of some character (e.g., a certain color) that exists intentionally does not cause its subject to take on that character (e.g., take on a certain color). This, I believe, is all Aquinas means by intentional existence.

The point that first needs emphasis in this connection is that Aquinas's distinction between intentional and natural existence is not the same as his distinction between physical and nonphysical existence. This fact emerges when Aquinas discusses the way one angel ap-

13 "Corpus enim naturale recipit formas secundum esse naturale et materiale. . . . Sed sensus et intellectus recipiunt formas rerum spiritualiter et immaterialiter secundum esse quoddam intentionale" (*InDSS* 18.204–10 [sec. 291]). See also *InDA* II.5.43–83 [secs. 281–84], II.14.262–86 [sec. 418], II.20.44–88 [secs. 493–95], II.24.18–95 [secs. 551–55], III.1.267–86 [sec. 583]; *QDA* 13c; II *Sent.* 19.1.3 ad 1, 36.1.2c; IV *Sent.* 44.2.1.3c (= *ST* 3a supp. 82.3c), 44.3.1.3c; *ST* 1a 78.3c, 1a2ae 22.2 ad 3.

For the medieval origins of the term *spirituale*, used in this context, see Gauthier's notes to *InDA* I.10.191–95.

prehends the essence of another. (Here is the first of many occasions on which we'll see the most abstruse theological questions bearing philosophical fruit.) The problem he faces is this: because angels are already nonphysical, it is hard to see how one angel can receive the immaterial form or species of another without being informed by that other angel itself. In other words, the problem is how the intelligible species of an angel differs from the angel itself. Aquinas explains that when one apprehends the essence of an angel one receives a species that exists intentionally not naturally. But that species, the *intentionally* existing form of the angel, is plainly no less physical than the *naturally* existing form of the angel (i.e., the angel itself). What this shows, Aquinas points out, is that the intentional–natural distinction is orthogonal to the physical–nonphysical distinction:

- 1.5 One angel cognizes a second through a species of the second existing in the intellect of the first. This species differs from the angel of which it is a likeness not in terms of material and immaterial existence but in terms of natural and intentional existence. For the angel itself is a subsistent form with natural existence. But its species, in the intellect of another angel, has only intelligible existence there. In the same way, the form of a color in the wall has natural existence, whereas out in the medium it has only intentional existence.<sup>14</sup>

Here, unlike in many other passages we will be considering, 'immaterial' plainly means something other than 'intentional'; here it has the straightforward sense of nonphysical. The passage shows that a form can be nonphysical and have either natural or intentional existence. And the last sentence of 1.5 seems to give us license to draw another conclusion: a physical form, such as the form of a color, can have either natural or intentional existence.

This passage (1.5) is unusual in explicitly distinguishing intentionality from immateriality. Quite often, the words 'immaterial' and also 'spiritual' take on a different sense, one that is different from what a modern reader would expect but is fully compatible with there being spiritual or immaterial existence in a wholly physical entity. A number of passages make this point clearly. In all of them, moreover, Aquinas

14 "Unus angelus cognoscit alium per speciem eius in intellectu suo existentem, quae differt ab angelo, cuius similitudo est, non secundum esse materiale et immateriale, sed secundum esse naturale et intentionale. Nam ipse angelus est forma subsistens in esse naturali; non autem species eius quae est in intellectu alterius angeli, sed habet ibi esse intelligibile tantum. Sicut etiam et forma coloris in pariete habet esse naturale, in medio autem deferente habet esse intentionale tantum" (ST 1a 56.2 ad 3). Cf. QDSC 1 ad 11.

speaks of intentional, spiritual, and immaterial existence almost interchangeably; it is in fact hard to find him discussing one without the others. So these passages will help establish a general claim about the interpretation of intentional, spiritual, and immaterial existence (grouped together, hereafter, as *ISI existence*).

- 1.6 A spiritual alteration occurs in virtue of a species' being received in a sense organ or the medium in the manner of an intention not in the manner of a natural form. For a species received in a sense in this way is not received in keeping with the existence that it has in the sensible object.<sup>15</sup>

Here Aquinas speaks of "spiritual alteration" in (a) a sense organ and (b) the medium between object and percipient, for example, air or water. The fact that he can speak of spiritual alteration in (a) and especially in (b) might seem like very good evidence for my interpretation of *ISI existence*. Indeed it is. How could a species exist nonphysically in the air? And intentional existence in (b) might seem like trouble for his criterion for cognition (in 1.1) – rightly so. But these points are rather complicated, so I will leave them for sections 2 and 3 of this chapter, respectively. I concentrate for now on how the second sentence of 1.6 seems to explain the first sentence. The reason there is a spiritual alteration in the sense organ is that a species is received that exists differently in the sense from how it existed in the sense object. And plainly, all Aquinas has in mind here is that the sense organ is not made colored by the sensible species. It is only in that respect that the species has a different manner of existence than it does in the object.

This point is made still more clearly by a later discussion in the *De anima* commentary. Aquinas distinguishes two manners of receiving forms. Sometimes, he says, a form is received that "has the same manner of existence in the thing affected and in the agent." In contrast,

- 1.7 Sometimes a form is received in the thing affected in keeping with a manner of existence different from the agent's, *because* the affected thing's material disposition for receiving is not like the agent's material disposition. And hence a form is received in the thing affected without matter *insofar as* the thing affected is made like the agent with respect to form and not matter. And a sense receives a form without matter in this manner *because* the form has a different manner of existence in the sense and in the

15 "Immutatio vero spiritualis est secundum quod species recipitur in organo sensus aut in medio per modum intentionis et non per modum naturalis formae: non enim sic recipitur species in sensu secundum illud esse quod habet in re sensibili" (*InDA* II.14.268–73 [sec. 418]). See also *IV Sent.* 44.3.1.3c, ad 2; *ST* 1a2ae 22.2 ad 3 (1.11).



## *Immateriality and intentionality*

sense object: for in the sense object it has natural existence, whereas in the sense it has intentional or spiritual existence.<sup>16</sup>

Note the emphasized phrases and the clauses that follow them. Each sentence raises problems for the view that ISI existence entails non-physicality. According to the first sentence, this different manner of receiving is the result of a different “*material disposition*” of the recipient, a claim that accords very badly with the view just mentioned. If the explanation of intentional existence is the receiver’s material disposition, then it certainly looks as if the receiver could be a wholly material thing, hence that a wholly material thing could be cognitive. The next sentence accords just as badly with a nonphysical interpretation of ISI existence, because the ‘insofar as’ clause explains nonmaterial reception in terms of formal resemblance. But obviously, one physical thing can be made like another in form instead of matter: think of a sculpture. The third sentence creates still more trouble, this time of the sort we saw in 1.6. The reason a form is received nonmaterially is that it has a different manner of existence in the recipient. Again, I would insist that this is all ISI existence means.

But 1.7 ends on a disquietingly circular note. It seemed that it was ISI existence being explicated by the passage, but the last sentence invokes that very phenomenon. I would still insist that this long chain of explanatory clauses should be understood as an explanation of ISI existence. It may help if we look at some of the examples Aquinas gives of what this sort of existence involves. Here is a typical passage:

1.8 Organs of sensing are altered by things outside the soul in two ways. In one way, this occurs through a natural alteration, when the organ is disposed with the same natural quality with which the thing outside the soul acting on it is disposed. Examples of this are when one’s hand is made hot, or burned, by the touch of a hot object, or made to smell bad by the touch of an object that smells bad. Such alteration occurs in the second way through a spiritual alteration, when a sensible quality is received in the instrument in respect of spiritual existence – that is, when the species or intention of the quality is received, and not the quality itself. For

16 “Quandoque vero forma recipitur in patiente secundum alium modum essendi quam sit in agente, quia dispositio materialis patientis ad recipiendum non est similis dispositioni materiali quae erat in agente, et ideo forma recipitur in patiente sine materia in quantum patiens assimilatur agenti secundum formam et non secundum materiam; et per hunc modum sensus recipit formam sine materia, quia alterius modi esse habet forma in sensu et in re sensibili: nam in re sensibili habet esse naturale, in sensu autem habet esse intentionale sive spirituale” (*InDA* II.24.45–56 [sec. 553]).

example, the pupil receives a species of whiteness and is nevertheless not made white.<sup>17</sup>

Color's being received in the eye is thus an example of ISI existence. Because the species is received spiritually, the eye is not colored by the reception of the species of color. If the eye were colored, it would undergo natural alteration. Forms that exist naturally, therefore, include colors and, as he indicates here, heat. Aquinas understands Aristotle's analogy of the signet ring (*De anima* ii.12) in terms of ISI existence, and by way of examples of such existence, he says that a sense "is not affected by a colored stone as stone, or by sweet honey as honey."<sup>18</sup> In another passage, Aquinas gives as an example of natural alteration something's being locally moved.<sup>19</sup> In all these cases, the crucial point seems to be that forms with ISI existence don't make the recipient into the sort of thing that the object is. The form of *p* exists in the recipient but without the recipient's taking on *p*.

Notice that ISI existence is defined in negative terms. All we are told is what it is not: it is not natural alteration. What we would further like to know is what ISI existence is, but here Aquinas falls silent. Yet even though he is unable to explain ISI existence in any definite way, it is not hard to see why he feels the need to introduce some such concept. On the one hand, he believes that the likenesses of objects are somehow transmitted through the air into the eye. On the other hand, he also knows that the intervening air and the eye do not in any ordinary sense take on the forms of those objects. So Aquinas is committed to there being some nonordinary way in which species are present in the medium and the sense organs. I have been arguing that such species could well be present physically and could bring about physical change, despite the superficial appearance of his terminology. But Aquinas, quite reasonably, seems to leave open the question of exactly how this spiritual alteration happens. He gives the theoretical outlines of an

17 "Sed sciendum est quod organa sentiendi immutantur a rebus quae sunt extra animam, dupliciter. Uno modo, immutatione naturali: quando scilicet organum disponitur eadem qualitate naturali qua disponitur res extra animam quae agit in ipsum, sicut cum manus fit calida et adusta ex tactu rei calidae, vel odorifera ex tactu rei odoriferae. Alio modo, immutatione spirituali: quando recipitur qualitas sensibilis in instrumento secundum esse spirituale, idest species sive intentio qualitatis, et non ipsa qualitas; sicut pupilla recipit speciem albedinis et tamen ipsa non efficitur alba" (*IV Sent.* 44.2.1.3c [= *ST* 3a supp. 82.3]). See also *ST* 1a 78.3c; *QDV* 21.3c; *InDA* II.5.60–68 [sec. 283].

18 "[N]on patitur a lapide colorato in quantum est lapis nec a melle dulci in quantum est mel" (*InDA* II.24.67–69 [sec. 554]).

19 *InDA* II.14.268 [sec. 418]. See also *ST* 1a 84.2c.

account but leaves the specific details to be filled in. Understood in this way, lack of specificity can hardly be seen as a weakness in the account.

## 2. A MATERIALIST THEORY OF SENSATION?

This account of ISI existence explains why Aquinas speaks of colors – surely physical things – as existing *in medio* spiritually and immaterially. (I'm still putting to one side, until sec. 3, the problem this raises for his criterion of cognition.) Moreover, we suddenly have much less reason to deny that sensation is a wholly physical event. This is because we can now suppose that when Aquinas speaks of sensible species as existing spiritually and immaterially he does not mean to be attributing to them some kind of ghostly, incorporeal state of existence. But this reading of Aquinas is controversial. Many have denied that Aquinas holds a materialist theory of sensation, and some have even argued that there is something less than physical about the species that travel through air and water.<sup>20</sup> If the argument of section 1 is correct, then there is little reason to take such claims seriously. But because the textual evidence is so uncertain, it is worth looking specifically at what Aquinas says about sensation and the multiplication of species through media.

There is a natural presumption in favor of a literal reading of Aquinas's claims that sensation involves not natural but spiritual alteration. But there are many passages that provide reason for overriding this

20 There is, surprisingly, a great deal of literature on this topic, some of it quite good. Paul Hoffman (1990) is the most visible proponent of the view I am rejecting. On more or less the same side as Hoffman are Gerard Casey (1992); John Deely (1968); John Haldane (1983); André Hayen (1954), pp. 114–20; and Richard Sorabji (1991), pp. 242–44. On my side, insofar as they take sensation to be wholly physical, are Mortimer Adler (1968); Sheldon Cohen (1982); Anthony Kenny (1993), pp. 34, 107; and Martin Tweedale (1992). The members of this last group all share roughly my interpretation of ISI existence. Kenny's support, it should be noted, is somewhat half-hearted. Only a few lines after remarking that by spiritual "Aquinas does not mean that anything ghostly or immaterial is happening" and that "the powers of the senses . . . do not transcend the world of matter," he says of sight that "the intentional change takes place without any physical change in the organ or in the object sensed" (p. 34).

A recent debate in Aristotelian scholarship has also centered on precisely this topic. Myles Burnyeat's reasons for denying the credibility of an Aristotelian philosophy of mind come down largely to his view that sensation in Aristotle must involve a nonphysical component, and he introduces Aquinas on his behalf. Nussbaum and Putnam, in reply, have defended a reading of Aquinas (and Aristotle) that is similar to my own. (See Nussbaum and Rorty 1992, chs. 2 and 3, and Burnyeat's "Additional Essay," added to the paperback edition.)

### *A materialist theory of sensation?*

natural presumption. In the following passage, for instance, Aquinas seems to be presupposing that colors in the medium are physical forms – that is, forms of wholly physical bodies, like air and water.

- 1.9 Color must actually move the translucent medium, for example, air or something else of that sort, and by that the sensory capacity – the organ of sight – is moved, as by a body in contact with it. For bodies don't alter one another unless they are touching.<sup>21</sup>

Of course the fact that the transmission of species from sense object to sense organ is a physical process would not show that sensation itself is a physical process. But Aquinas also seems to commit himself to the latter in various places, as in the following:

- 1.10 Aristotle asserted that only intellectual cognition, among the works of the soul, is carried out without a corporeal organ. Sensing, however, and the consequent operations of the sensory soul, manifestly occur along with some alteration of the body – as, in the case of seeing, the pupil is altered through the species of a color, and the same is evident for the other [senses].<sup>22</sup>

Aquinas endorses Aristotle's position.

But do these passages show that Aquinas treats sensation or the transmission of sensible qualities as purely physical events? Clearly, on his account sensible species and species *in medio* are instantiated within a physical substance. The various sensory powers are all physical in that they employ corporeal organs. And of course air is a corporeal substance, which does not stop Aquinas from claiming that species *in medio* exist immaterially. Aquinas claims unambiguously that sensation is “the act of a corporeal organ.”<sup>23</sup> And in that same passage, distinguishing natural and spiritual alteration, he writes,

- 21 “Oportet autem quod color moveat diaphanum in actu, puta aerem vel aliquod aliud huiusmodi, et ab hoc movetur sensitivum, id est organum visus, sicut a corpore sibi continuato; corpora enim non se immutant, nisi se tangant” (*InDA* II.15.87–92 [sec. 432]). See also *InDA* III.12.142–47 [sec. 773], and *IV Sent.* 10.1.4.1c. On color's status as forms see *InDA* II.14.362–65 [sec. 425]: “cum color sit quaedam forma.”
- 22 “Sed Aristoteles posuit quod solum intelligere, inter opera animae, sine organo corporeo exercetur. Sentire vero, et consequentes operationes animae sensitivae, manifeste accident cum aliqua corporis immutatione; sicut in videndo immutatur pupilla per speciem coloris; et idem apparet in aliis” (*ST* 1a 75.3c). See also ad 2 of the same article.
- 23 *ST* 1a2ae 22.2 ad 3. Cf. *InPhys.* VII.4.910: “Actiones enim sensuum, ut auditio et visio, sunt quidam motus per corpus cum aliqua sensus passione. Non enim sensus habent aliquam actionem, nisi per organum corporeum: corpori autem convenit moveri et alterari.”

Consider also the paradoxical-looking claim of *II Sent.* 36.1.2c: “In sensu autem

## *Immateriality and intentionality*

- 1.11 An organ of the soul can be changed in two ways. In one way by a spiritual change, insofar as it receives an intention of the thing. And this is found per se in the act of the sensory apprehensive power. In this way the eye is altered by something visible – not so that it is colored but so that it receives an intention of color.<sup>24</sup>

Here it is the *organ* of the eye that is altered spiritually. It is that physical organ that receives an intention of color or, in other words, an intentionally existing species of color.

It does not necessarily follow from this that the act must be entirely physical. Indeed, Paul Hoffman makes just this point. He argues that, for Aquinas, “the immaterial reception of sensible forms is a wholly incorporeal change taking place in corporeal organs.”<sup>25</sup> On Hoffman’s interpretation, Aquinas views sensation as an incorporeal process, just as intellection so clearly is. The difference, says Hoffman, is one of degree. Aquinas suggests as much in the following passage:

- 1.12 This sort of immaterial existence has two levels in lower [orders of] living beings. One of the levels, intelligible existence, is thoroughly immaterial: for in intellect things have existence both without matter and without the individuating conditions of matter, and also without a bodily organ. Sensible existence, on the other hand, is halfway between these two. For in the senses, a thing has existence without matter but not without the matter’s individuating conditions, nor without a bodily organ.<sup>26</sup>

Sensible existence, the way in which sensible species exist, is (as we’ve already seen) a kind of immaterial existence. But 1.12 tells us that it can also be seen as halfway between entirely immaterial existence and entirely material existence. In some way without matter, however, sensible existence does involve a bodily organ, as well as “the individuating

est [passio] secundum species in organo materiali spiritualiter et non materialiter receptas.”

24 “Dupliciter organum animae potest transmutari. Uno modo transmutatione spirituali, secundum quod recipit intentionem rei. Et hoc per se invenitur in actu apprehensivae virtutis sensitivae; sicut oculus immutatur a visibili, non ita quod coloretur, sed ita quod recipiat intentionem coloris” (*ST* 1a2ae 22.2 ad 3).

25 Hoffman (1990), p. 86.

26 “Huiusmodi autem immateriale esse habet duos gradus in istis inferioribus: nam quoddam est penitus immateriale, scilicet esse intelligibile, in intellectu enim res habent esse et sine materia et sine conditionibus materiae individuantibus et etiam absque organo corporali; esse autem sensibile est medium inter utrumque, nam in sensu res habet esse absque materia, non tamen absque conditionibus materiae individuantibus neque absque organo corporali” (*InDA* II.5.70–79 [sec. 284]). See also *QDV* 19.1c.

conditions of matter.” (I will consider what these individuating conditions are in Ch. 3, sec. 4.) Hoffman’s conclusion is that sensation is nonphysical but to a lesser degree than intellectual cognition.

Notice however that this conclusion depends on taking immateriality in Aquinas’s account to entail nonphysicality. As I argued in section 1, there is, despite the superficial appearance of the terms, good reason to deny this. Moreover, on this interpretation, Aquinas’s account of sensation becomes rather baroque. To make sensation partly nonphysical, one needs to hold that although sensible species are received in a bodily organ (1.11), and with an alteration of a body (1.10), nevertheless the alteration remains (partly) incorporeal. Hoffman is willing to make precisely these claims. He is willing, that is, to allow that sensation on Aquinas’s account runs on two tracks. On one level, the physical sense organs are altered in the process of sensation. All sensation except vision, Aquinas believes, involves this ordinary natural change. Touch, for instance, involves physical pressure on the skin, and hearing involves the vibration of the inner ear.<sup>27</sup> But in each case, there is a further spiritual alteration involved, and this, Hoffman holds, is nonphysical. So, running concurrently with the physical change there is a nonphysical event, and this is the actual event of sensation.

Such an account strikes me as implausible. Aquinas says repeatedly that sensible species are received in a physical organ (see 1.8, 1.10, 1.11, 1.12). When we keep in mind that these species are forms, it is difficult to see what else Aquinas could be saying other than that these sensible species inform the physical organ. What else is there for the sensible species to inform? For such species to be nonphysical, it seems they would have to be the forms of something nonphysical. But there aren’t any good candidates, neither at the sensory level nor (much less) in air or water. For a body, such as a physical organ, to receive a form is simply for that body to be altered from one physical state to another.

At this point, one might propose a kind of property dualism and hold that the nonphysical property of sensation is instantiated in the physical sense organs. But even if there is *some* perspective from which this sort of account makes sense, that perspective is certainly not Aquinas’s. In the context of his metaphysics, forms are modifications of the substances in which they are received. Surely physical substances receive only physical modifications. Otherwise, it would seem, they are not entirely physical substances at all. And Aquinas is quite explicit in maintaining that the sense organs are entirely physical. Alternatively,

27 See, e.g., QDA 13c; InDA III.1.274–77 [sec. 583], InMet. I.1.6.

one might propose that sensible species don't inform the physical sense organ but rather the nonphysical soul. Aquinas, however, explicitly denies this: "The [soul's] sensory part doesn't receive species in itself but in the organ, whereas the intellectual part doesn't receive them in an organ but in itself."<sup>28</sup> It seems, therefore, that the reception of sensible species must be a wholly physical event.

This conclusion is borne out by the following passage, in which Aquinas suggests that spiritual alteration is one kind of *corporeal* change:

- 1.13 Strictly speaking, passion is found where there is a corporeal change. This is indeed found in acts of the sensory appetite – and *not just* a spiritual change, as is the case with sensory apprehension, *but also* a natural one.<sup>29</sup>

What this passage seems to show is that there are two sorts of corporeal change: spiritual and natural. Aquinas is emphasizing here that, when he says sensory desires are accompanied by corporeal change, he does not mean that it is just a spiritual change. But if a spiritual change were not in this case a kind of corporeal change, surely no such caveat would be needed.<sup>30</sup>

Spiritual alteration, therefore, is not incompatible with physical change. This may seem hard to believe, just judging from the terms. But in fact it was not unusual among the Scholastics to use the term 'spiritual' in a very broad manner that would allow spiritual existence in a wholly physical entity. The influential ninth-century treatise *On the difference between soul and spirit*, by Costa Ben Luca, begins with the claim that "spirit is a kind of subtle *body*"; Ockham, too, several generations after Aquinas, is happy to speak of physical things as spiritual.<sup>31</sup> Not surprisingly, then, Aquinas speaks of "corporeal spirit," which he

28 "Sensitiva enim pars non recipit in se species, sed in organo; pars autem intellectiva non recipit eas in organo, sed in se ipsa" (*DUI* 1.433–35 [sec. 24]).

29 "Passio proprie invenitur ubi est transmutatio corporalis. Quae quidem invenitur in actibus appetitus sensitivi; et non solum spiritualis, sicut est in apprehensione sensitiva, sed etiam naturalis" (*ST* 1a2ae 22.3c).

30 Hoffman, curiously, takes this passage to be strong evidence for his own position. On his reading, spiritual change is being contrasted with corporeal and natural change, and the latter two are taken as identical (p. 86). But it seems fairly clear to me that the logic of the passage requires *spiritualis* and *naturalis* to be kinds of *transmutatio corporalis*.

31 "Spiritus est quoddam corpus subtile" (*De differentia animae et spiritus*, p. 102). For Ockham, see *ExPhys.* VII.3.4 (*OPh* V, 637). See also Pierre Michaud-Quantin (1970), pp. 120–21.

### *The intentionality criterion*

says “is invisible and has little matter, and it is for this reason that we attribute the name ‘spirit’ to *all* immaterial and invisible substances.”<sup>32</sup>

But Aquinas does treat spiritual alteration as the contrary of natural alteration, and this leads him to make a number of claims that appear superficially problematic for my interpretation. In the *De anima* commentary, for instance, he writes that “what has only intentional existence does not bring about a natural change.”<sup>33</sup> If natural change included all physical change, then this passage would be good evidence that intentionality and cognition cannot occur in wholly physical entities. But natural change here has to be understood in the way explained earlier, as the reception of the form of *p* in such a way that the recipient takes on *p*. Hence, one who naturally receives the form of heat thereby becomes hot; one who naturally receives the form of a color becomes colored, and so on. When natural change is understood in this sense, the passage reads precisely as one would expect: an intentionally existing form of red (e.g.) does not make the recipient red.<sup>34</sup>

### 3. THE INTENTIONALITY CRITERION

As we have seen, Aquinas speaks of forms as existing intentionally not just in both intellect and the senses but even in the medium between percipient and sense object. If the argument of the last two sections is correct, then there is nothing shocking about his calling species *in medio* intentional or even spiritual and immaterial. But the problem remains that these species seem to constitute a counterexample to his criterion for cognition. If receiving intentionally existing forms is necessary and sufficient for being cognitive, then the air and other media seem to be cognitive. (Ockham himself raises this point in rejecting Aquinas’s criterion.)<sup>35</sup> Why would Aquinas have made such an obvious blunder?

32 “Spiritus enim corporeus invisibilis est, et parum habet de materia; unde omnibus substantiis immaterialibus et invisibilibus hoc nomen attribuimus” (*ST* 1a 36.1c, ad 1). See also *I Sent.* 10.1.4c.

33 “[Q]uae habent solum esse intentionale non faciunt transmutationem naturalem” (*InDA* II.14.301–3 [sec. 420]).

34 Sometimes Aquinas denies that the operation of the sensory soul involves a change in corporeal qualities (see, e.g., *ST* 1a 78.1c; *QDA* 1c; *SCG* II.68.1458). Hoffman (1990) rightly stresses these passages as some of the best pieces of evidence for his view (p. 79). Although I cannot dispute the point here, I believe that the context of these passages suggests that Aquinas means only to rule out the involvement of the four elements – earth, air, fire, water – and their associated qualities.

35 *Ord.* 35.1 (*OTH* IV, 426). Cf. *Ord.* 27.3 (*OTH* IV, 247).



There can be no doubt that Aquinas does think species *in medio* exist intentionally (see, for instance, 1.5 and 1.6 above).<sup>36</sup> His motivation for thinking so is clear. Although he believes that the species of colored objects are transmitted through the air from an object to the eye, he recognizes that air does not ordinarily become colored. Further, two species of different colors can go through the same section of air, as when my line of vision crosses yours. These phenomena would not be possible, Aquinas thought, if color had a natural existence in air. If color existed naturally in air, then air would become colored and could not at the same place and same time be informed by two different colors. Aquinas concludes that color must exist in the medium intentionally, and the same is true, although the details are somewhat different, in the case of sounds and odors.<sup>37</sup> (Aquinas was by no means the only one, or even the first one, to confront this phenomenon. Ockham has to go to great lengths to explain this, because he denies, as we will see in Chapter 2, that species have any special intentional, nonnatural existence.)<sup>38</sup>

Can we avoid attributing to Aquinas a blatant contradiction? There are two obvious tacks that we might take. First, we might argue that species *in medio* do not really exist intentionally, despite Aquinas's repeated claims to the contrary. If we had independent reason for thinking that such species could not exist intentionally, then this might be plausible. But the argument of the last two sections shows that this is the wrong path to take; it is his criterion for cognition that seems to be the problem. This suggests a second strategy: we might decide not to take 1.1 seriously as a criterion for being cognitive. We might conclude that, although the reception of intentionally existing forms is necessary for being cognitive, it is not *sufficient* for being cognitive.<sup>39</sup>

The difficulty with this second option is that it flies in the face of considerable textual evidence. I've already quoted 1.1, which seems, quite clearly, to be proposing a criterion. Aquinas restates this view later in the *Summa*:

36 "Unde species coloris est in aere per modum intentionis" (*QDV* 27.4 ad 4). See also *InDA* II.20.44–88 [secs. 493–95], II.21.93–97 [sec. 507]; *InMet.* 1.1.6; *ST* 1a 67.3c, 3a supp. 82.3 ad 2 (= *IV Sent.* 44.2.1.3 ad 2); *II Sent.* 13.1.3c, *IV Sent.* 44.3.1.3c ad 2.

37 *InDA* II.20.44–88 [secs. 493–95]. For sounds, see *InDA* II.14.279–86 [sec. 418], II.16.48 [sec. 440]. For odors, see *InDA* II.20.63–88 [secs. 494–95]. See Sorabji (1991) for further details.

38 For Ockham, see *Rep.* III.2 (*OTh* VI, 63–64). See also William Crathorn, *I Sent.* q. 1, concl. 6, obj. 8, and reply.

39 This is argued in Hoffman (1990), p. 88. Tweedale (1992), in contrast, writes that any such interpretation "seems very strained to me" (p. 218).

## The intentionality criterion

- 1.14 In the case of things that lack cognition, one finds only a form determining each to its one proper existence. . . . In the case of those having cognition, however, each is determined to its proper natural existence through a natural form in such a way as nevertheless to be receptive of the species of other things – just as the senses receive species of all sensible things, and intellect of all intelligible things.<sup>40</sup>

Being “receptive of the species of other things” seems to be a feature that all and only cognitive entities possess. (Notice that Aquinas refers to *species* and not just to forms in general; he probably means by this, as in 1.1, to confine his claim to *intentionally* existing forms.) But where does the medium fit into this distinction? It is not listed as a cognitive thing (not surprisingly), even though it is capable of having both its own form and the species of other things. But for this reason the medium does not seem to fit into the class of things that lack cognition. So, the distinction Aquinas draws here seems to leave no place for such things as air and water.

Further textual evidence that Aquinas takes this criterion seriously comes from the *De anima* commentary, in which he comments on Aristotle’s claim that “a sense is receptive of species without matter” (424a18). Aquinas notes that this doesn’t seem peculiar (*proprium*) to the senses, because all alteration involves the reception of forms without matter. The *differentia* Aquinas identifies between sensory reception and ordinary reception lies in the manner of receiving. The senses receive forms that exist intentionally (as does intellect), whereas other things receive forms existing naturally.<sup>41</sup> Again, as in 1.1 and 1.14, it seems to be the ability to receive intentionally existing forms that distinguishes the cognizant from the noncognizant.

The connection established in sections 1 and 2 between intentional and spiritual–immaterial existence leads to further reasons to take this criterion seriously. In the same article of the *Summa theologiae* from which 1.1 is taken, Aquinas tells us that “a thing’s immateriality is the *reason why* it is cognizant, and the manner of its cognition occurs in

40 “In his enim quae cognitione carent, invenitur tantummodo forma ad unum esse proprium determinans unumquodque. . . . In habentibus autem cognitionem, sic determinatur unumquodque ad proprium esse naturale per formam naturalem, quod tamen est receptivum specierum aliarum rerum: sicut sensus recipit species omnium sensibilium, et intellectus omnium intelligibilium” (ST 1a 80.1c). See also ST 1a 84.2c, although there Aquinas seems to say no more than that intentionally receiving forms is *necessary* for cognition.

41 *InDA* II.24.13–95 [secs. 551–55]. This point is made explicitly again at II.24.116–25 [sec. 557]. See also ST 1a 78.3c, 84.2c.

keeping with the manner of its immateriality."<sup>42</sup> Given that immaterial existence is (in these contexts) closely connected with intentional existence, his explicit statement that immateriality is the "reason" for cognition is still further evidence that intentional reception of forms is Aquinas's criterion for cognition. But this statement also gives us further reason to worry about the criterion, because Aquinas says repeatedly (as we by now should expect) that colors, sounds, and odors in the medium exist not just intentionally but also spiritually<sup>43</sup> – and that suggests immateriality.

The persistence with which Aquinas advances 1.1 as a criterion makes it hard to see how we could refuse to take it seriously. We seem then to be left with a contradiction:<sup>44</sup> everything that receives intentionally existing forms is cognitive; but air and water receive intentionally existing forms; therefore air and water are cognitive. It is obviously not plausible to accept the conclusion outright. But given the unattractiveness of the two obvious replies – which consisted in denying one or the other of the premises – I propose that we look hard at whether there isn't something attractive about the awkward conclusion. Air and other media are obviously not cognitive. But I believe it is an implication of Aquinas's account that media, in receiving forms intentionally, are (from a theoretical perspective) participating in the same sorts of operations as are the properly cognitive faculties of sense and intellect.

If we follow this tack, then we can understand what led Aquinas to argue that being cognitive is a matter of being (literally) informed. This criterion, I would suggest, is as significant for what it does not claim as for what it does claim about cognition. For one thing, it does not link cognition with the everyday mental states of folk psychology. For all Aquinas tells us, something can be cognitive without having the ability to form, for instance, beliefs. Indeed, his criterion makes no appeal whatsoever to any such folk-psychological states as belief, desire, knowledge, and so on. Nor, second, need cognition have any particular feel or even feel like anything at all. Nor does Aquinas base his criterion

42 "[I]mmaterialitas alicuius rei est ratio quod sit cognoscitiva; et secundum modum immaterialitatis est modus cognitionis" (*ST* 1a 14.1c). See also *QDV* 2.2c, 21.3c.

43 See, in addition to 1.6, *InDSS* 11.180–82 [sec. 172]; *InDA* II.14.262–86 [sec. 418], II.20.44–88 [secs. 493–95]; *ST* 1a 67.3c.

44 This is Tweedale's view: "Aquinas has then, without realizing it, committed himself to incompatible views" (Tweedale (1992), p. 218). He argues that Aquinas came to be stuck in such a position because he was, on this subject, the victim of a long, confused tradition of Aristotelian interpretation.

on behavioral characteristics. Cognizers needn't, for all he says, act in any particular way or even act at all. Aquinas in fact explains why he doesn't accept a criterion of this last sort for being cognitive. Again, as in 1.1, this discussion comes in the context of whether God is a knower – but now from his earlier *Sentences* commentary. Because there are so many respects in which God is unlike us (e.g., his simplicity, his timelessness, his immutability), it was a serious question for Aquinas whether God should even be said to have knowledge. He considers a view on which God would be called knowing only because he acts like someone who is knowing.<sup>45</sup> But Aquinas decides that this “doesn't seem sufficient” for attributing knowledge to something:

- 1.15 For every act comes from an agent by reason of something in the agent, just as heat heats and something light rises upward. Hence, in someone who performs an act of knowledge, there must be something pertaining to the nature [*rationem*] of knowledge.<sup>46</sup>

So Aquinas refuses to call something knowing unless it has the right nature, and clearly the same would apply to being cognitive. In this early discussion of whether God has knowledge, Aquinas doesn't specify what the nature of knowledge involves. But he's ready with an answer by the time he reconsiders this same question in the *Summa theologiae*: what cognition requires is the sufficient capacity for intentional reception of forms.

Air and other media exhibit the same capacity as the sense organs, intellect, and even God: all contain intentionally existing forms. Each is receiving information, as we might put it, from the external world. Each, in virtue of the forms it receives, has a certain content, and this content is representative of the environment. Aquinas is even willing to speak of air and water as being *perceptive* of color.<sup>47</sup> This, however, shows not that he thinks air and water actually engage in perception but that he strongly associates the Latin *perceptivus* with its original, core meaning: having the capacity to take or receive something. No wonder, then, that he takes intentional reception to be the essential element in cognition.

45 “[U]t dicatur Deus sciens, quia operatur effectum sicut aliquis sciens” (I *Sent.* 35.1.1 ad 2).

46 “Sed hoc non videtur sufficiens. . . . Secundo, quia omnis actus procedit ab agente ratione alicuius quod in ipso est, sicut calidum calefacit et leve ascendit sursum. Unde oportet quod in eo qui operatur actum scientiae, sit aliquid ad rationem scientiae pertinens” (ibid.).

47 “[A]er at aqua . . . sunt perceptiva coloris” *InDA* III.1.88–89 [sec. 570].

## *Immateriality and intentionality*

For Aquinas, being cognitive comes in degrees. Things are cognitive to the extent to which they are immaterial:

- 1.16** Plants do not cognize, on account of their materiality. But the senses are cognitive, because they are receptive of species without matter. And intellect is still more cognitive, because it is more separate from matter and unmixed. . . . Hence, since God is immaterial in the highest degree, . . . it follows that he is cognitive in the highest degree.<sup>48</sup>

Again, this sort of passage raises the question of where air and water belong. They, too, receive forms immaterially, although they don't get included in this hierarchy. So what makes the senses less cognitive than intellect, and air even less cognitive than the senses? Although there is a bare theoretical resemblance, there is also an enormous qualitative difference between air and the cognizers mentioned in **1.16**. Air and water are able to receive, contain, and transmit only the rawest, most primitive information about the environment: patterns of sounds and colors of various intensities and varieties. As we ascend to the higher cognitive powers, we find more and more sophisticated capacities for receiving and processing this information. The external sense organs receive these raw forms from the environment, through the medium, and in the internal senses these forms are converted into more-complex, more-meaningful representations. In intellect, representations are formed that are still more expressive. Here, particular sense data are converted into universal concepts. (For a sketch of the operations of these various cognitive powers, see sec. 2 of the Introduction.)

This cognitive hierarchy, as I'm understanding Aquinas, is not determined by measuring how receptive of forms a thing is. What matters, instead, are the *kinds* of forms that a thing receives and, in particular, the degree of their universality. According to Aquinas, the ability to cognize many things through one universal form is the mark of a more powerful cognizer: "the intellect that through one universal medium can cognize proper singulars is more perfect than one that cannot."<sup>49</sup> Air may receive a great deal of information (literally, forms, as medieval physics

48 "Unde in II *de Anima* dicitur quod plantae non cognoscunt, propter suam materialitatem. Sensus autem cognoscitivus est, quia receptivus est specierum sine materia: et intellectus adhuc magis cognoscitivus, quia magis separatus est a materia et immixtus, ut dicitur in III *de Anima*. Unde, cum Deus sit in summo immaterialitatis, ut ex superioribus patet, sequitur quod ipse sit in summo cognitionis" (*ST* 1a 14.1c). See also *ST* 1a 84.2c; *QDV* 2.2c.

49 "Perfectior enim est intellectus qui per unum universale medium potest singula propria cognoscere quam qui non potest" (*ST* 1a 55.3 ad 2). See also *ST* 1a 89.1c; *QDV* 8.10.

conceived of it), but this information is entirely particular and unstructured – for example, a vibration here, of such and such frequency. The senses may receive these same impressions or species from the environment, but this confused mass of data is converted by the sense powers (external and internal) into more-complex and more-sophisticated representations. At the level of the external senses, an unstable field of color is structured into three-dimensional objects that persist through time and motion. Sensible species take on this structure, and hence the senses display a higher degree of cognition; indeed, here is the first point at which Aquinas is even willing to speak of cognition.

Still-more-complex representations occur in the internal senses. Consider the sheep who flees the oncoming wolf and the bird who collects straw to build a nest. Here it is the estimative power, one of the four inner senses, that produces these responses in nonrational animals.<sup>50</sup> Such animals display genuine cognition (compared to the air) but not because they are able to act (as the air isn't). It is rather their ability to represent the world in more-abstract ways that makes these animals cognitive. The sheep's internal senses, when confronted with a wolf, perceive not just a certain pattern of colors and smells, structured as objects in a certain way, but also danger. This isn't yet what Aquinas considers a universal cognition. As Aquinas explains it, the sheep doesn't put the wolf into the category of dangerous things but is simply able to perceive danger at the same time as perceiving the wolf: "The estimative power does not apprehend an individual *in terms of its being under a common nature* but only in terms of its being the end point or starting point of some acting or being affected."<sup>51</sup> The latter part of this sentence seems to mean that the estimative power apprehends the individual as something to be fled (for instance) or something to be desired. One might wonder how an individual can be apprehended in that way yet not "in terms of its being under a common nature." The answer seems to be that the estimative power, in a particular case, can be impressed by something like a sense of danger: "Through the estimative power, an animal apprehends intentions that are not received through the senses – for example, friendliness or hostility."<sup>52</sup> This sense

50 *ST* 1a 79.4c. On this subject, see Hayen (1954), pp. 154–55.

51 "Aestimativa autem non apprehendit aliquod individuum secundum quod est sub natura communi, sed solum secundum quod est terminus aut principium alicuius actionis vel passionis" (*InDA* II.13.211–14 [sec. 398]).

52 "[V]is extimativa per quam animal apprehendit intentiones non acceptas per sensum, ut amicitiam vel inimicitiam" (*QDV* 25.2c). Notice Aquinas says that it is "not received through the senses." Surely, however, the sensory input at least triggers the

of danger is not a general classificatory judgment; presumably, then, it is more like a nonconceptual urge.

Human beings are even more sophisticated as cognizers; we are able to have intellectual representations that are truly universal. At the level of intellect, we have information that isn't based on a mere instinctive reaction, as in the above cases, but is an explicit concept or belief, available to introspective awareness and able to be expressed. It's not our having *beliefs* or *concepts* or *introspective awareness*, however, that makes us cognizers of a higher sort. It's rather the ability to be informed that Aquinas invokes to do the explanatory work, and his account of beliefs and other states is dependent on this more-basic theory of intentional reception.

Aquinas's specific wording in 1.1 is important. Cognitive entities, he says there, are "*suit*ed to have the form of another thing as well." Being suited, however, comes in degrees. God is preeminently suited for cognition. He contains intellectually and eternally the forms of all of creation.<sup>53</sup> Human beings aren't nearly so well suited as cognizers. But our capacity for universal concepts, and therefore theoretical knowledge, makes us better at it than other animals; we have more information about the world. The lowest orders of animals are still cognitive. But at this point – in the eyes of a bee, for instance – the reception of forms does not seem so different from the purely mechanical reception of colors in air. Aquinas shows no signs of wanting to include air and other media among cognitive things. But the reason for this is not that air lacks consciousness or beliefs or some such thing. Rather, the reason air doesn't count as cognitive is that it is so poorly *suit*ed to receive intentionally existing forms. Aquinas's criterion suggests that if we do not think of air as cognitive, this is not because of some fundamental difference in its desires or its behavior but because air isn't suited to receive species to the extent that the senses and intellect are. The *De memoria* commentary makes this point explicitly: just as a stone is better suited to *retain* an impression than water is, although it is harder to make an impression on stone, so some people retain memories better than others, even though they are initially slower to take in the impression. Generally, he writes, "the different dispositions of human beings for the functions of soul come from different bodily states."<sup>54</sup>

reaction. See Ockham's interesting discussion of this last point at *Ord.* 3.2 (*OTH* II, 410–12).

53 See, e.g., *ST* 1a qq. 14–15.

54 "[D]iversae habitudines hominum ad opera animae proveniunt ex diversa corporis dispositione" (*InDMR* I.1.66–80 [sec. 302]).

If cognition requires no more than the ability to have representational content, then one might wonder why Aquinas needs to invoke the notion of intentional existence. If the air is allowed to be cognitive-like, why not allow the kettle of water to be so as well (in an even more limited sense), in virtue of the information *it* is receiving? This line of questioning brings out some important features of Aquinas's account. For him, the critical feature of things that are truly (and not just trivially) cognitive is that they are suited to contain a great deal of information about their environment. A little reflection shows that nonintentional things will not have this capacity. If the only way an object can represent the environment is by taking on the characteristics of its surroundings, then its cognitive capacities will be drastically limited. How much could we really apprehend if our ideas actually had to resemble the world? It would be a cumbersome process, to say the least. A high-powered computer, on the other hand, would have to be considered cognitive on Aquinas's criterion. Such a computer encodes its information about the world: words and books, dollars and debts are represented through pulses of electricity. When the holdings of a library are put on computer, this does not involve the books themselves being put into the computer. The books could hardly exist naturally in the computer's memory – that would involve the books themselves existing within the computer. That is why intentional existence is required for cognition.

Aquinas has a theoretical basis, however, on which he could insist that computers are *inherently* inferior to human beings as cognizers. Despite all their astonishing speed and memory capacity, computers are wholly physical entities. And for Aquinas, it is the nonphysicality of the human intellect that makes us cognizers of a qualitatively different sort (cf. 1.16). Why should incorporeality matter? Aquinas's view is that the degree of a thing's immateriality determines the degree of its cognitive capacities. Nonphysical things are more open to information; they display what Aquinas, referring back to his account of God's infinity, calls "a kind of infinity" in their capacity to receive forms:

1.17 Hence, it's evident that the nature of a noncognitive thing is more confined and limited, whereas the nature of cognitive things has a greater breadth and extension. . . . The confinement of a form, however, is the result of matter. And hence . . . forms approach a kind of infinity to the extent to which they are more immaterial. It is clear, therefore, that a thing's immateriality is the reason why it is cognizant, and the manner of its cognition occurs in keeping with the manner of its immateriality.<sup>55</sup>

55 "Unde manifestum est quod natura rei non cognoscentis est magis coarctata et



In the case of air or water, “the manner of its immateriality” is merely that it receives forms of things without taking on the characteristics of that form. Intellect is immaterial not just in this way but also in being nonphysical. Immateriality of this latter sort is what gives the human soul the ability to have abstract, universal knowledge. Computers, in contrast, are limited to particular data. They, like the senses, are “more confined and limited.” But even computers might be cognizant to some extent, insofar as they give structure to the information they receive. Such structure is what makes perception an instance of cognition: one perceives patterns of color, for instance, as a table. Such cognition falls short of the genuinely universal cognition available through intellect, but it is a step in that direction, inasmuch as it is a way of collecting scattered data into a single, unified percept.

We are on the path, at this point, toward seeing why Aquinas is only a *semimaterialist* – why, that is, he thinks materialism about the mind must be false. According to Aquinas, if we were wholly physical entities, we wouldn’t be capable of the abstract thoughts we so plainly have. Argument is of course needed here to show why abstract thought is possible only in something nonphysical, and this is an issue that goes well beyond my present concerns.<sup>56</sup> But, at the very least, a proper understanding of the link between intentionality and immateriality points in the direction such a project needs to be taken.

Such are the implications of Aquinas’s criterion for cognition. This criterion gives us a substantive and interesting account of what cognition involves. The apparent shortcoming of his approach is that he offers no clear-cut, qualitative distinction between what is and what is not cognitive. On my reading of Aquinas, the difference between the cognitive and the noncognitive turns out to be a matter of degree: air and water are less suited to receiving forms in the way required for cognition, so they don’t make it into the category of cognitive things. But this account may strike the reader as unpalatable. Isn’t there obvi-

limitata: natura autem rerum cognoscentium habet maiorem amplitudinem et extensionem. Propter quod dicit Philosophus, III *De anima*, quod ‘anima est quodammodo omnia.’ Coarctatio autem formae est per materiam. Unde et supra diximus quod formae, secundum quod sunt magis immateriales, secundum hoc magis accedunt ad quandam infinitatem. Patet igitur quod immaterialitas alicuius rei est ratio quod sit cognoscitiva; et secundum modum immaterialitatis est modus cognitionis” (*ST* 1a 14.1c). Cf. *InDA* II.5.60–68 [sec. 283]; *QDV* 2.2c. For Aquinas’s general account of infinity, on which he draws here, see *ST* 1a q. 7 aa. 1–2.

<sup>56</sup> I know of no adequate treatment of Aquinas on this topic. But see James Ross (1992) for a contemporary argument, along Aquinas’s lines, against materialist theories of mind.

ously a clear difference in kind between the cognitive and the noncognitive?

I am supposing that there is not, for Aquinas. It is obvious that human cognition is utterly different from the mere reception of color in air. But the difference becomes less clear when we descend to the level of a bee. Bees are clearly quite different from the air in that bees are alive. But is it clear that the cognitive processes in a bee are utterly different in kind from the mere reception of color in air? Aquinas's position, as I am characterizing it, is surprising but not indefensible.

Still, it is reasonable to wonder whether Aquinas might have the resources, elsewhere in his vast corpus, to draw a sharper line between things that are and things that are not cognitive. Two possibilities come to mind: first, invoking beliefs and desires; second, employing some notion of cognitive attention. I'll consider these in turn, although a full treatment of the second possibility will have to wait until Chapter 4.

Aquinas has, to be sure, an account of beliefs and desires and their links to cognition and behavior. But a brief look at part of what he says on this score shows the difficulties he would face in trying to appeal in this direction for an account of cognition. There is a sense, Aquinas says, in which appetites are found in everything. This is the case if appetite is understood quite broadly, as merely "some kind of direction to an end."<sup>57</sup> When this meaning of 'appetite' is combined with Aquinas's well-known view that "it is necessary that everything that acts acts on account of an end,"<sup>58</sup> it follows that all things that act have appetites. More precisely, everything has *an* appetite. It's crucial to emphasize this last point, because Aquinas wants to be able to account for the narrower, everyday sense of 'appetite' that is applied only to cognitive entities. In this everyday sense, a thing is said to have appetites because it has not only a *single* natural appetite directed at a single fixed end (as fire is inclined upward) but also because it can have various appetites for the various things that it apprehends – what Aquinas calls a "multiform" appetite.<sup>59</sup>

It's the capacity for cognition that makes this multiform appetite possible. Aquinas's discussion of their linkage is worth a closer look. In order to show that cognitive entities must have more-complex kinds of inclinations (= appetites) than do noncognitive entities, he argues in three steps:

57 *QDV* 22.3 obj. 2, ad 2; *ST* 1a 80.1 obj. 1, ad 1.

58 "Omnia agentia necesse est agere propter finem" (*ST* 1a2ae 1.2c).

59 *QDV* 22.3 ad 1.

*Immateriality and intentionality*

- 1.18 [1] Inclinations follow forms (as fire is inclined by its form to a higher place and to generating things like itself).  
[2] But in things that participate in cognition, a form is found in a higher state than in things that lack cognition. . . .

[We've already seen Aquinas's argument for this premise (in 1.14). It is his criterion for being cognitive: cognitive things are suited to have not just their own forms, but also the intentionally existing forms of other things.]

Therefore [3] just as forms exist in things having cognition in a higher state, above the state of natural forms, so, too, there must be in them an inclination above the state of a natural inclination.<sup>60</sup>

This higher kind of inclination – a multiform appetite, in other words – is what we call appetite in the ordinary sense. This includes desires and wants as well as their opposites: fear, hate, and so on.<sup>61</sup>

We can draw some important conclusions from these last two paragraphs. First, Aquinas could not define 'cognitive' as *anything that has appetites or desires*. Everything has appetites; air would turn out to be cognitive on that criterion, just as it seems to be on his stated criterion (1.1). But, second, he might be able to use the notion of multiform appetite to get at our intuitive concept of being cognitive. Everything with a multiform appetite meets his stated criterion for being cognitive. But some things that seem (disturbingly) to meet that criterion don't have multiform appetites – air, for instance. So the class of things with multiform appetites appears to have just about the right extension: God, angels, and human beings will be included, as will some other animals. (Where we will draw the line there seems rightly open to debate, on this proposal.) Simple handheld calculators wouldn't count as cognitive, but more-complex computers might. (To count as cognitive, they would need to be able to modify their appetites on the basis of changing information.)

There are problems, however. Aquinas, in 1.18, explains multiform appetite in terms of being cognitive. So although the notion of multiform appetite may pick out the right extension, it is hardly a reductive

60 "Quamlibet formam sequitur aliqua inclinatio: sicut ignis ex sua forma inclinatur in superiorem locum, et ad hoc quod generet sibi simile. Forma autem in his quae cognitionem participant, altiori modo invenitur quam in his quae cognitione carent. . . . Sicut igitur formae altiori modo existunt in habentibus cognitionem supra modum formarum naturalium, ita oportet quod in eis sit inclinatio supra modum inclinationis naturalis" (ST 1a 80.1c).

61 On the appetites, see ST 1a qq. 80–81, 1a2ae qq. 22–48.

explanation of the phenomenon of cognition. Moreover, the conclusion of 1.18 rests on the claim that all cognitive things will have multiform appetites, when 'cognitive' is understood according to his stated criterion (1.1). But this raises a problem that by now should be familiar. Because air seems to be cognitive, according to 1.1, it should also, according to 1.18, have a multiform appetite. And now it looks like we haven't made any progress. Having a multiform appetite won't do us any good as a criterion for being cognitive unless it can be defined so as to exclude air and other media. If Aquinas's conception of appetite is to give us a more intuitive notion of cognition, we need a new account of what it is to have a multiform appetite, one that doesn't rest on 1.1's criterion for cognition.

A second way in which an alternative criterion for cognition might be developed is through the notion of cognitive attention. Aquinas at times acknowledges that an essential component of cognition must be an active attention toward the object; a merely passive reception alone does not suffice. Hence, he says that "attention is required for the act of any cognitive power."<sup>62</sup> Elsewhere, he writes, "the cognitive power doesn't actually cognize anything unless an attention is present."<sup>63</sup> This suggests a way in which air can be distinguished from truly cognitive entities: air is a purely passive recipient of intentionally existing species; cognitive entities, in contrast, display an active attention. And if there is no attention on the part of the cognitive agent, then we don't have a true case of cognition. The mere reception of sound waves in my auditory faculties is not sufficient for hearing to take place. I might, for instance, be asleep or just concentrating on something else.

There is a problem here, too. Aquinas often insists that sensation is an entirely passive process. He writes, for instance, "for a sense's complete operation the impression of its active [object] in the manner of a passion alone suffices."<sup>64</sup> He makes an even stronger claim in the *Summa theologiae*: "a sense's being affected is its very sensing."<sup>65</sup> If this is all sensation requires, and if sensation is a form of cognition (as it would seem to be), then again we face a difficulty in explaining how air

62 "[A]d actum alicuius cognoscitivae potentiae requiritur intentio" (*QDV* 13.3c) (4.7).

63 "Vis cognoscitiva non cognoscit aliquid actu nisi adsit intentio: unde et phantasmata in organo conservata interdum non actu imaginamur, quia intentio non fertur ad ea" (*SCG* I.55.458).

64 "Sed quia sensus non sentit nisi ad praesentiam sensibilis, ideo ad eius operationem perfectam sufficit impressio sui activi per modum passionis tantum" (*III Sent.* 14.1.1.2c).

65 "[S]ensum affici est ipsum eius sentire" (*ST* 1a 17.2 ad 1).

can be disqualified from being cognitive. There are a number of complications, including whether Aquinas draws a distinction between sensation and perception. But although the details of this story will have to wait until Chapter 4, we can tentatively conclude that the notion of cognitive attention does not explain very much. Being attentive, for Aquinas, is a capacity of all and only cognitive beings. But, as before, although this sort of account would give us the right extension for the concept of being cognitive, it offers very little by way of explanation. As we will see (Ch. 4, sec. 3), Aquinas treats attending to an object as a necessary antecedent state that the sensory power must be in. But there is no explanation of what this antecedent state involves. Air and water, we could say, don't have the capacity to be in such a state of attention. But this sort of reply leaves unsolved the real question of why air and water lack that capacity. Being attentive does seem to be a necessary and sufficient condition for being cognitive. But it explains virtually nothing about what cognition is. We might as well say that air and water lack cognition because they lack the appropriate souls.

#### 4. OCKHAM ON THE INTENTIONALITY CRITERION

Aquinas's criterion does not seem to have generated a great deal of discussion among later Scholastics. A notable exception is Ockham, who, as we saw in section 1, quotes 1.1 verbatim and goes on to criticize it. He concludes his argument by abandoning the project of formulating such a criterion:

1.19 Nor can one give any general reason why something is cognitive. Rather, it stems from the thing's nature that it is either cognitive or noncognitive.<sup>66</sup>

This conclusion raises an interesting issue. One might read the passage as showing that Ockham has given up on the project of understanding cognition and that he takes cognition to be a primitive, irreducible property that things either do or do not have. To be cognitive "stems from the thing's nature," and no further explanation is possible. This is how Marilyn Adams reads the passage; according to her, Ockham's position is that "the properties of being able or being unable to know are not, in general, logically guaranteed by other properties but are primitive and *sui generis*."<sup>67</sup> As Adams understands Ockham's posi-

66 "Nec potest aliqua ratio generalis dari quare aliquid est cognitivum, sed ex natura rei habet quod sit cognitivum vel quod non sit cognitivum" (*Ord.* 35.1; *OTH* IV, 427).

67 Adams (1987), p. 1020.

tion, some things by nature just are cognitive; others just aren't. Being cognitive is not explicable by any more general (i.e., basic) characteristics.

I think that reflection shows, however, that Ockham could not be taking cognition to be *that* mysterious. Being cognitive isn't just a brute fact, inexpressible in terms of any other properties. Adams seems to be conflating two different claims that Ockham might be making in this passage. The first is what he seems to express by denying that there is a "general reason" why something is cognitive. This suggests that Ockham means there is no one way of being cognitive – God might be cognitive in one way, angels in another, humans in another, and so on. Indeed, perhaps Ockham would even think that different human beings might be cognitive in different ways. At any rate, the point seems to be that no one account of cognition is globally applicable. This position is *prima facie* plausible, although Ockham has given us no reason to think it true other than his criticisms of Aquinas's own criterion.

The second claim that Ockham might be making is suggested in the second sentence of 1.19. When he adds that being cognitive or noncognitive "stems from the thing's nature," it is tempting to think, as Adams does, that he means not just that there is no *one* account of why something is cognitive but that there is no account at all other than the brute fact itself. But if the text can bear this reading, I don't think it is a position that Ockham can coherently maintain. For one thing, cognition is merely a capacity for performing certain sorts of operations. We are cognitive in virtue of being able to see, feel, remember, imagine, intellectually cognize, and so on. The point is that a list can be made of what it means to be cognitive. It seems absurd, however, for Ockham to say that being cognitive is a primitive property when it can so plainly be given a reductive account in terms of other properties. I suppose Ockham's point might be that this is as far as the reduction goes – that being cognitive can be explained in terms of a list of other capacities, but those capacities (e.g., being able to see) can't be explained any further. This seems implausible, however, especially because Ockham himself spends some time giving analyses of various aspects of cognition.<sup>68</sup>

Another reason to question Adams's reading of 1.19 is that it seems to presuppose that cognition is always nonphysical. If sensation for

68 See, e.g., his account of vision in *Rep.* III.3, and his account of intellectual cognition in the *Ord.* prologue, q. 1.

### *Immateriality and intentionality*

Ockham is a wholly physical process (as I've argued it is for Aquinas), then cognition will not be a primitive, brute property but will be explicable in terms of physical events. It's not clear to me whether Ockham is a materialist in this respect – that is, whether he is a semimaterialist in the way that Aquinas is – but it does seem undesirable (without further evidence) to read 1.19 in a way that presupposes the rejection of semimaterialism.

I conclude that Ockham does not hold the view that cognition is an utterly mysterious, “primitive and sui generis” property, about which nothing more can be said. In some sense, his position might be called antireductionist in that he denies that a *general* reductive account of cognitive phenomena can be given. (This position finds its parallel today in philosophers who accept that mental states supervene on physical states but reject reductive materialism.) Although Ockham can in this sense be called an antireductionist, he does not hold that cognition is a primitive, brute fact.

## Chapter 2

### Intentionality made mysterious

FOR modern readers, the term ‘intentional,’ in its technical sense, is tightly connected with mind, perception, and thought. If the argument of Chapter 1 is correct, then this is a rather different usage from the one employed by Aquinas. For Aquinas, the term is related to cognition in a less direct way. The more things are suited to receive intentionally existing forms, the more cognitive they are. But intentional existence does not entail mental existence: nonthinking things like air and water routinely receive intentionally existing forms. In the contexts we are interested in, intentionality is for Aquinas a matter of receiving the form or species of *p* without actually taking on *p* (where *p* might be replaced by ‘heat,’ ‘triangle,’ ‘horse,’ etc.).

I began Chapter 1 by claiming that misunderstandings about Aquinas’s usage of the terms ‘intentional’ and ‘immaterial’ have led both medieval and modern interpreters astray. The most famous modern instance is Brentano. His claim that intentionality is a mark of the mental, insofar as this claim was inspired by Aquinas, was itself inspired by a misreading of Aquinas.<sup>1</sup> Other readers have been similarly misled by Aquinas’s use of the terms ‘immaterial’ and ‘spiritual.’ John Haldane, for instance, after considering what Aquinas has to say about sensory cognition, concludes that the postulation of immaterial existence in a physical organ “is simply a vain attempt to combine incompatible features.”<sup>2</sup> This overly harsh judgment can be attributed to a misreading of what Aquinas means by ‘immaterial’ in the context of sensory cogni-

- 1 Sorabji argues that Brentano is misreading Aristotle and traces the origin of that misreading to Aristotle’s Greek commentators (Sorabji 1991; 1992, pp. 224–25). I am concerned only with the debate as it went on in the half century after Aquinas’s death. A complete treatment of this topic would have to give prominent attention to Greek and, in particular, Arabic precursors. Note that Sorabji thinks that it is Aristotle – not Aquinas – whom Brentano is misreading.
- 2 Haldane (1983), p. 238.



tion. But Haldane is in good company inasmuch as many Scholastics made this same mistake. In the present chapter, I will consider the way intentionality and related concepts took on an increasingly mysterious meaning in the years after Aquinas's death. I make no claims to having isolated the moment in history when 'intentionality' and its various cognates took on their modern connotations. But we will see a striking tendency among philosophers of the late thirteenth and early fourteenth centuries to give the notion a certain magical status, as if the mysteries of mind and cognition could be explained merely by pointing to the presence of intentional existence.

1. PHYSICAL, NOT INTENTIONAL (ROGER BACON  
AND WILLIAM CRATHORN)

In saying that intentionality became mysterious during this time I mean, first, that it and related phenomena were stripped of all connections to the physical and, indeed, to the real. This is, I've argued, very far from Aquinas's usage. It is also quite different from the way Aquinas's contemporary, Roger Bacon, conceived of these phenomena. Bacon, like all the philosophers I will consider, believes that the mind is nonphysical. Hence, mental representation in the narrow sense – representations in intellect – are nonphysical by default. But Bacon takes care, in a way that Aquinas does not, to emphasize that species at the sensory level are wholly physical: "Many philosophers say that species have spiritual existence *in medio* and in sense . . . , and [that] because these species have spiritual and not material existence, they don't observe the laws of material forms."<sup>3</sup> Bacon holds instead that all such species have material and natural existence. And instead of flatly rejecting all talk of such species' existing spiritually and immaterially, he gives this sort of talk a charitable interpretation:

2.1 When they [philosophers] say that species have spiritual existence *in medio*, this is not in such a way that 'spiritual' is taken properly and firstly from 'spirit' – in the way that we say that God and an angel and the soul are spiritual things. For it is plain that the species of corporeal things are

3 "Et multitudo philosophantium . . . dicunt quod species habent esse spirituale in medio et in sensu, et imponunt hoc Aristoteles et Averroes in libro de Anima secundo. Et quia esse habent spirituale et non materiale, ideo non servant leges formarum materialium" (*Opus Majus* p. 5(1) d. 6 c. 3). See *De multiplicatione specierum* III.2 (186–94).

For discussion of what it means for a *form* to be physical or material, see Ch. 1, p. 36.

not spiritual in this way. Therefore, they necessarily will have corporeal existence, because body and spirit are opposites without intermediary.<sup>4</sup>

He goes on to make it clear that this is the case for species in the senses as well as *in medio*. Indeed, he adds that it would be insane to think the contrary, given that such species are received in physical substances. As for why the term 'spiritual' would have been applied (initially by Aristotle and Averroes) to such species, Bacon gives just the explanation Aquinas had suggested (cf. Ch. 1, n. 32): such species are called spiritual because they cannot be perceived, just as all properly spiritual things (God, angels, etc.) cannot: "they are called spiritual, because they are nonsensible. But there is no contradiction between this spirituality and corporeality or materiality in material and corporeal things."<sup>5</sup>

On Bacon's view, therefore, species *in medio* and in the senses are physical things that are spiritual in only a very loose sense. This, I've argued, was precisely Aquinas's view as well. And although Aquinas also held that such species have intentional existence, this was in no way incompatible with their being wholly physical and, of course, wholly real. By the early-fourteenth century, in contrast, it becomes common to analyze cognition in much less concrete terms. Authors like Peter Aureol and William Ockham see the debate in terms of a choice between real existence and some sort of nonreal, intentional existence. It is a characteristic move of this period – a move utterly foreign to the thought of both Aquinas and Bacon – to appeal to the nonreal for an explanation of the very real phenomenon of cognition.

In this discussion, Bacon doesn't use the term 'intentional.' This isn't surprising, because on his view such species don't have intentional existence, at least not the sort of intentional existence that Aquinas described. Bacon held that species *in medio* and in the senses are literal likenesses of external objects. Such species make their recipients actually like their causes. In Aquinas's terminology, they have natural existence. Species produced by colored objects, for instance, are, according to Bacon, literally colored:

- 4 "Cum autem dicunt, quod species habet esse spirituale in medio, hoc non est secundum quod spirituale sumitur proprie et primo, a spiritu, secundum quod dicimus Deum et angelum et animam esse res spirituales: quia planum est quod species rerum corporalium non sic sunt spirituales. Ergo de necessitate habebunt esse corporale, quia corpus et spiritus opponuntur sine medio" (*Opus Majus* p. 5(1) d. 6 c. 3).
- 5 "Et ideo species sunt insensibiles. Et quia insensibiles sunt vocantur spirituales: sed haec spiritualitas non contradicit corporalitati nec materialitati in rebus materialibus et corporalibus" (*ibid.*). See also *De mult. spec.* III.2 (192).

- 2.2 A species is of the same nature as what produces it. Hence the species of a color belongs to the genus of color, because the species of whiteness cannot be in the category of substance nor in any category other than quality. Nor can it be in any most determinate genus or species other than whiteness, because it is not blackness or greenness or any other. Therefore it remains that a species of whiteness, which is the likeness of that whiteness, will be an individual in the species category of whiteness.<sup>6</sup>

The argument here rests on the framework of the Aristotelian categories. A species of whiteness – that is, a species representing whiteness – can't be in any category other than that of quality. And within the category of quality, the species couldn't belong to any species other than whiteness. (In this last sentence, as in 2.2, the word 'species' is used in two ways: to refer, first, to species as cognitive representations; and second, to species as classes of objects.) Bacon's conclusion is surprising and implausible-sounding. One wonders, for instance, about the extent to which sensible species will be of the same nature as what they represent. Will they share the same size, or weight?

We'll have occasion to consider these questions in more detail in Chapter 3, in which I discuss the views of William Crathorn, who defends this same position at length. It is a striking feature of Crathorn's theory of species – circa 1330 – that he never helps himself to any distinction between natural and intentional existence. Like Bacon, Crathorn believes that the species is a "natural likeness" of the external object, a position he holds to the extent of believing that a species of a color in the senses (or in the air) is in fact colored. Because Crathorn is willing to go this far, he – like Bacon – doesn't need Aquinas's conception of intentional existence, according to which the form of red can exist in the senses (or the air) without the senses (or the air) becoming red. This becomes particularly clear when Crathorn considers Aristotle's dictum that "it is not a stone that is in the soul but the species of a stone" (431b30). In fact, in the various Scholastic interpretations of this passage, we can see the whole variety of later medieval accounts of mental representation. According to Ockham, predictably enough, Ar-

6 "[S]pecies est eiusdem naturae cuius est agens eam, et ideo de genere colorum est species colorum, quoniam species albedinis non potest esse in substantia nec in alio praedicamento, quam in qualitate, nec potest esse in aliquo genere vel specie specialissima alia quam in albedine, non enim est nigredo vel viriditas, nec aliqua alia. Ergo relinquitur quod species albedinis, quae est eius similitudo, erit individuum in specie albedinis praedicamentali" (*Opus Majus*, p. 5(1) d. 6 c.3). See also *De signis* n. 5 (p. 83), quoted in Ch. 3 n. 33. On how Bacon takes the term 'intentional' to be used, see *De mult. spec.* I.1 (4).

istotle uses 'species' to mean the act itself of cognition or else a disposition (*habitus*) toward an action.<sup>7</sup> Aquinas and Crathorn are able to take Aristotle's claim more literally. But for Aquinas, this passage illustrates the difference between natural and intentional existence. The form of the stone exists naturally in the real world, and thus there are stones. The form (= species) of the stone exists intentionally in cognizers, and thus one can have the cognition of a stone.<sup>8</sup>

Aristotle's dictum poses a puzzle for Crathorn, because he takes the species of a given property itself to instantiate that property. Because he doesn't recognize the intentional–natural distinction, Crathorn needs a different explanation for why we don't have stones in our head when we think about stones. He says the following:

- 2.3 The Philosopher calls a species of a stone the likeness of an accidental property of the stone – for example, of color or heat or some other accident – but not a likeness of the stone's substance, because no such thing is in the human soul in this life.<sup>9</sup>

His position is that we never get stones in our heads, because we get only the accidental features of the stone. This doesn't appear to be a position that can tolerate much critical appraisal. What would happen if I were to grasp all the accidental features of a given stone: its color, texture, size, weight, and so on. Wouldn't my head become stonelike in all these respects? And if so, wouldn't it actually be a stone? As we'll see in Chapter 3, this is a problem Crathorn has no easy way of evading. One of the roots of this difficulty is his choosing not to accept Aquinas's doctrine of intentional or spiritual existence. And although he doesn't explicitly say why he doesn't follow Aquinas in this part of the species theory, one must suspect that Crathorn was influenced by the implausible accounts of intentional existence that were being given in the early–fourteenth century. It's to these accounts that I now turn.

## 2. INTENTIONAL, NOT PHYSICAL (OLIVI)

We can already see movement toward making intentionality mysterious in the last quarter of the thirteenth century, in the work of Peter

7 "Aliter accipitur pro habitu vel actu quo cognoscitur res, et sic accipit Philosophus 'speciem' III *De anima* quando dicit quod lapis non est in anima sed species lapidis" (*ExPor.* 2.1; *OPh* II, 31). Cf. *Rep.* II.12–13 (*OTH* V, 291–92); *Rep.* III.3 (*OTH* VI, 126).

8 See, e.g., *QDV* 21.3c.

9 "Ad quintum dicendum quod Philosophus vocat speciem lapidis similitudinem accidentis lapidis scilicet coloris vel caloris vel alicuius alterius accidentis, non autem similitudinem substantiae lapidis, quia nulla talis est in anima humana pro statu isto" (*I Sent.* q. 1 concl. 7; 121).

John Olivi. It is part of Olivi's attack against species to argue that they would be unable to produce cognition, regardless of whether they are physical or nonphysical. The first is impossible, he argues, because "a simple, spiritual, living act of seeing cannot be produced by a corporeal species having location and extension."<sup>10</sup> Olivi is clearly assuming that there is something nonphysical about perception and that a physical species could not be the cause of such an act. Hence, the first option is ruled out. The species could not be physical. But because he wants to deny that any species – physical or nonphysical – is the efficient cause of sensation, he needs to pay special attention to refuting the second possibility, that species might be nonphysical entities. It is in this context that he considers a proposal that sounds very much like Aquinas's: that species have an "intentional, spiritual, and simple existence."<sup>11</sup> It's clear from Olivi's replies to this proposal, however, that the terms 'spiritual' and 'intentional' are being taken in ways quite different from what Aquinas had intended.

One telling reply that Olivi makes is to deny that something that exists intentionally could either come from or inform a physical object:

- 2.4 Second, it is impossible that one of these species should have not real or natural but only intentional existence, and nevertheless should flow from a natural and corporeal form and should actually inform a natural body – the air, for instance, or an eye.<sup>12</sup>

Olivi doesn't argue for this claim; he takes it to be self-evident. The reason it seems self-evident, however, is that he sets up the intentional as some kind of unreal, nonphysical mode of existence. But he is not entitled to assume without argument that intentional existence precludes real existence or that what exists intentionally could not be produced by what is physical. Now it's true, as we saw in Chapter 1, that Aquinas contrasts intentional and natural existence. But Aquinas never holds that only the latter is real or that the former is nonphysical. The only place in his corpus I have found the intentional associated with what is nonreal is in Book III (lecture 6) of Aquinas's commentary on Aristotle's *Meteora*. But it is clear that this part of the commentary was

10 "Quia a specie corporali situm et extensionem habente non potest produci actus videndi simplex et spiritualis et vivus. Sed species genita in organo ab obiecto est huiusmodi" (*II Sent.* q. 58 ad 14.5; II, 489).

11 "[E]sse intentionale et spirituale et simplex" (*II Sent.* q. 73; III, 87).

12 "Secundum impossibile est quod una harum specierum non habeat esse reale seu naturale, sed tantum intentionale, et tamen quod vere et naturaliter fluat a forma naturali et corporali et vere ac realiter informet corpus naturale, puta, aerem et oculum" (*ibid.*; III, 87–88).

### *Existing, but not really*

written by someone other than Aquinas.<sup>13</sup> Furthermore, the text there, although it initially asks whether light in the medium has real or only intentional existence, goes on to say that such light has *both kinds* of existence.

Olivi goes on to make much the same argument against species when taken as spiritual. And he brings out the absurdity in the view he's attacking by wondering whether a species that is spiritual and simple should be taken to be nonextended in the way that a geometrical point is or in the way that the human soul is.<sup>14</sup> (Olivi took the common Scholastic view that the human soul exists wholly in every part of the human body.) Neither of these options seems very plausible in the case of colors or other sensible qualities that exist in the senses or medium. So, if being spiritual truly entailed being nonphysical, then Olivi's charges would have considerable merit. But, as we've seen in both Aquinas and Bacon, there is a sense in which being spiritual does not entail being nonphysical.

### 3. EXISTING, BUT NOT REALLY (PETER AUREOL)

Olivi's literal interpretation of what it would mean for species to exist spiritually contributed, along with his conflation of intentional with nonreal existence, to his decision to abandon species altogether. His account of cognition is thoroughly nonphysical; he doubted, as we saw earlier (n. 10), whether something physical could play a causal role in any sort of cognition – even in the case of sensory perception. But for Olivi, it would seem, the nonphysical was not at all nonreal, and there is little tendency in his work to explain cognition by appealing to what is not real. In the early–fourteenth century, however, it became almost standard to distinguish between real and nonreal existence and to attribute an important role in cognition to the latter. We can see early moves in that direction being made by John Duns Scotus (circa 1300) and, a decade later, by the Oxford theologian Henry of Harclay. For both men, the subject arises in the context of the divine ideas. Scotus's answer to the question of whether other things exist in God as the objects of his intellect is to say that “all things distinct from God exist in

13 See Torrell (1996), pp. 235–36. Here, as elsewhere, my sweeping claims about what Aquinas never said are based on searches with the indispensable CD-ROM *Index Thomisticus*.

14 *II Sent.* q. 73 (III, 88).

God objectively and according to intelligible existence.”<sup>15</sup> There’s no discussion here of what this existence amounts to, but Scotus makes it clear that the point of giving the divine ideas objective existence is to preserve divine simplicity. Hence, he writes, “because the created object cannot be present in the divine mind in terms of some species, it must exist there objectively, through the divine essence.”<sup>16</sup> Henry of Harclay takes a similar position. The divine ideas exist in God in cognized existence; in other words, they exist there objectively and not subjectively. The latter sort of existence, which Harclay attributes to intelligible species, would be incompatible with divine simplicity, as it would entail real diversity in God.<sup>17</sup>

Both Harclay and Scotus, although their emphasis is on the divine ideas, place this sort of existence in the human intellect as well. According to Scotus, the house one has in mind exists there objectively. Indeed, “the idea of a house just is the house, as intellectually cognized.” Harclay’s words are similar: “a statue in the mind of the maker and in reality differ only as to real existence and cognized existence.”<sup>18</sup> The extension of the notion of objective existence to the human intellect has dramatic consequences for early-fourteenth-century philosophy. What in Scotus and then in Harclay began as a strategy for preserving divine simplicity comes to play a central role in accounts of human cognition. In the years between Scotus and Ockham (the first two decades of the fourteenth century), it became standard to distinguish between two different kinds of existence: real, subjective existence and nonreal,

15 “[S]ecundum hoc ergo patet responsio ad primum quaestionem, quod omnia alia a Deo sint in Deo obiective et secundum esse intelligibile” (*Lectura* Bk. I d. 36 qq. 1–2; in *Vivès* XXII, p. 436a). Cf. *Ordinatio* Bk. I d. 35 q. un (VI, 258, 266). For further discussion of Scotus’s views on intelligible existence, as well as Peter Aureol’s and Hervaeus Natalis’s, see Perler (1994a, b).

16 “Cum igitur obiectum creatum non possit esse praesens secundum aliquam speciem in mente divina, oportet quod sit ibi obiective per essentiam divinam” (*Lectura* I.36 qq. 1–2; in *Vivès* XXII, p. 444b). For details, see Adams (1987), ch. 24.

17 See the Worcester disputed question on divine ideas, in Maurer (1961), p. 184. For further discussion of Harclay’s views, in relation to Ockham’s, see Stephen Read (1977).

18 Scotus: “Domus autem in anima est obiective. . . . Idea domus non sit nisi domus, ut intellecta” (*Lectura* I.36 qq. 1–2; in *Vivès* XXII, p. 444a). See also *Ordinatio* I d. 36 q. un (VI, 284–90), where Scotus speaks of ideas as having *esse deminitum* in both God’s mind and our own.

Harclay: “Unde statua in mente artificis et in re non differunt nisi sicut esse reale et esse cognitum” (Vatican question on divine ideas, in Maurer 1961, p. 171).

mind-dependent, objective existence. The most outstanding proponent of this sort of account is Peter Aureol (d. 1322).<sup>19</sup>

Aureol's most-discussed contribution to Scholastic philosophy is a series of illusions he describes in various places in his *Sentences* commentary. Among those he cites are a stick that looks bent in water, mirror images, double vision, and afterimages of the sun. These and other illusions show, he argues, that sensation requires an intentionally existing object, and he goes on to claim that intellect, too, requires such an object. He characterizes this object, in addition to its having intentional existence (*esse intentionale*), as having nonreal and nontrue existence, seen and judged existence, apparent and objective existence<sup>20</sup> (the last expression being better known because of its appearance in Descartes's Third Meditation).

What sort of object is Aureol talking about? In denying that such objects have real existence, Aureol means at least that their existence depends on being perceived:

- 2.5 It's false, too, what some people imagine: that images are in the mirror and appearances in the medium whether or not they are seen. For then it would follow that they would have true and real existence.<sup>21</sup>

Images that have intentional existence are mind-dependent. Such objects, as he later describes it, are "*placed in intentional existence*" by the senses and intellect.<sup>22</sup> If they could exist independently of mind, Aureol

19 For another very interesting discussion of the distinction between real existence and nonreal cognitive existence, see William of Alnwick's disputed questions *De esse intelligibili*. In the first of these questions, Alnwick describes and then argues against the notion of a representative or intentional existence that is distinct from real existence. His opponent is the Franciscan Jacob de Asculo (cf. Yokoyama 1967). For more on these two figures, see Michalski (1969), pp. 11–17.

Gilson (1955) justly says of Alnwick's first disputed question that "it would be difficult to quote a more perfect specimen of dialectical discussion" (p. 468).

20 These terms are all used in I *Scriptum* d. 3 sec. 14 nn. 31–32 (II, 696–99). References to Aureol's *Scriptum super primum Sententiarum*, through distinction eight, are drawn from Buytaert's edition. Beyond that point, unless otherwise stated, I rely on the Vatican edition of 1596.

21 "Quod enim aliqui imaginantur quod imagines sint in speculo et apparentiae in medio, sive videantur sive non videantur, hoc utique falsum est. Tunc enim sequeretur quod haberent verum esse reale" (ibid., n. 31; II, 698).

22 "Cum igitur sensus exterior formativus sit, sic quod ponat res in esse intentionali, et similiter imaginatio idem habeat . . . , relinquitur quod intellectus multo fortius ponit res in esse intentionali et apparenti" (ibid.; II, 698).



tells us in 2.5, they would have real existence. Intentionally existing objects exist only so long as they are perceived.

But *where* do they exist? Aureol's answer to this question is surprising. He does, like Scotus and Harclay, speak of concepts as existing objectively *in intellect*.<sup>23</sup> But as far as the senses are concerned – and this is the most peculiar and controversial aspect of his theory of intentional existence – he explicitly argues that such objects exist outside the mind. This isn't made clear in his discussion of his first experience: the apparent movement of trees seen from a boat on a river. In such a case, he says, "the trees existing on the shore seem to be moved," and he goes on to refer to "that movement that exists objectively in the eye."<sup>24</sup> The eye does seem like a reasonable place to locate intentionally existing images, especially given that those images are mind-dependent. But Aureol proceeds, in the next example, to clarify his view. Such images, he says, exist intentionally *outside* the percipient. It is worth quoting the passage in full:

- 2.6 The second experience involves the sudden, circular movement of a stick in the air. For some kind of circle appears to be made in the air by a stick moved in this way. Hence, one asks what that circle is that appears to the one seeing. It can't be something real existing either in the stick (because the stick is straight) or in the air (even less so, because a colored and determinate circle cannot be in the air). Neither can it be the vision itself, because then the vision would be seen, and further the vision is not in the air where that circle appears. Nor, for the same reasons, can it be anywhere within the eye. Hence, it remains that it is in the air, having intentional existence, or in judged and seen apparent existence.<sup>25</sup>

The passage makes it plain that, in this case, the circle has nonreal, intentional existence outside the percipient. More specifically, it must have this existence at the place where it appears to exist; 2.6 rules out the possibility that the apparent circle might be the vision itself, with the

23 See, e.g., *I Scriptum* d. 23 a. 2 (Pinborg 1980); *I Scriptum* d. 2 s. 10 a. 4 nn. 91–99 (II, 548–50).

24 "[C]um quis portatur in aqua, arbores existentes in ripa moveri videntur. Iste igitur motus, qui est in oculo objective . . ." (*I Scriptum* d. 3 sec. 14 n. 31; II, 696).

25 "Secunda experientia est in motu subito baculi et circulari in aere. Apparet enim quidam circulus in aere fieri ex baculo sic moto. Quaeritur ergo quid sit ille circulus qui apparet videnti; aut enim est aliquid reale existens in baculo, quod esse non potest cum sit rectus; aut in aere, quod minus esse potest, nam circulus coloratus et terminatus in aere esse non potest; nec potest esse ipsa visio, quia tunc visio videretur, et iterum visio non est in aere ubi circulus ille apparet; nec alicubi intra oculum esse potest propter easdem rationes. Et ideo relinquitur quod sit in aere habens esse intentionale sive in esse apparenti iudicato et viso" (ibid.; II, 696–97).

remark that “the vision is not in the air where that circle appears.” Evidently, then, whatever the apparent circle is, it will exist where it appears to exist. This interpretation is confirmed by a later example Aureol gives, of an image in a mirror. In such a case, Aureol says, “that very thing itself exists behind the mirror in judged, apparent, and seen existence.”<sup>26</sup> Elsewhere, he argues that God could annihilate a wall and conserve our vision of that wall: “then the object of sight would remain in intentional existence in such a kind and degree and in the same place in which before it had really existed.”<sup>27</sup> It therefore seems likely that the first passage, in which Aureol refers to movement as existing objectively “in the eye” (n. 24), is just a slip on his part, and his considered view is that sensory images have intentional existence wherever they seem to exist. This is a point that many of Aureol’s modern readers have missed,<sup>28</sup> but it is clearly a central feature of his view.

Passage (2.6) illustrates why Aureol thinks it necessary to postulate some kind of object to account for illusory experiences. A crucial point comes when, after describing the illusion, he asks what this apparent circle is. (“Hence one asks what that circle is that appears to the one seeing.”) One might suspect that even by asking this question Aureol has committed himself to nonreal entities. When one sees an illusion, one might want to say, what one sees isn’t anything at all: it doesn’t exist. (We’ll face this issue more squarely in Chapter 5.) Aureol’s question would clearly be legitimate if he were asking for the cause of the apparent circle. But if this is his question, then he makes some curious assumptions. He first assumes (in 2.6), as he runs through the possible answers, that what appears must be something that has the features the

26 “Relinquitur igitur quod sit sola apparentia rei vel res habens esse apparens et intentionale, ita ut ipsamet res sit infra speculum in esse viso iudicato et apparenti” (ibid.; II, 697). See also d. 1 s. 6 n. 102 (I, 366–67), in which Aureol refers to “*imagine . . . existente in speculo non realiter, sed intentionaliter et in esse apparenti.*”

27 “Unde posset Deus, cum aliquis parietem intuetur adnihilare parietem, et conservare visionem in oculo, et remaneret tunc obiectum visus in esse intentionale talis, tantus et in eodem loco, in quo prius realiter existebat” (I *Scriptum* d. 27 p. 2 a. 2 ad 5; I, 625iiA).

28 Tachau (1988) describes Aureol as holding that apparent entities “have no extramental existence” (p. 98). Weinberg (1977) contrasts such entities with external objects, and holds that they are “present to consciousness” (pp. 36–37). Weinberg and perhaps Tachau, too, seem to have been misled in part by a false parallel to Aureol’s account of intellectual concepts. As noted, Aureol does hold that concepts have intentional existence in intellect.

Adams (1987) correctly describes Aureol’s view: “Aureol seems to reason that since the circle appears in the air, it has the property of being in the air and is not to be identified with anything, real or unreal, that lacks this property” (p. 91).

apparent circle seems to have. Hence, this entity can't be in the stick itself or in the air, because nothing circular or colored could exist in either place. Second, he assumes that what appears must be something external, something that can be seen and can exist where the circle appears to exist. Hence, he rules out as candidates the vision itself as well as anything in the eye. The fact that Aureol makes these two assumptions shows that he isn't asking about the cause of the apparent circle. The appearance of a circle surely might be caused by something noncircular. So Aureol must instead think it intelligible to ask about the circle itself; he assumes, in the case of such an illusion, that there will be some thing that appears. From this point, it's not far to an ontology of apparent entities.

One might naturally suppose that no such apparent entity will be required in nonillusory cases. But in fact Aureol holds that there are intentionally existing objects even for ordinary veridical perceptions; intentional existence, he says, is not a special feature of illusions. The reason the illusory cases are the best evidence for the existence of apparent entities is that, in the case of veridical perception, "the image or thing in apparent existence is not distinguished from [its] real existence, because in the case of true vision they occur together."<sup>29</sup> Aureol goes on to suggest that he does not mean that in ordinary cases two things are seen: that one sees both the apparent image and the real object. Rather, one sees only the object, but the apparent image was there all along. He reports with approval Augustine's account of afterimages: "how after colors are seen the objective images, which were also there while the colors were seen but which could not be discerned, remain."<sup>30</sup> Aureol in fact claims that being in the proper relationship to this *esse apparens* is both necessary and sufficient for being cognitive.<sup>31</sup>

Aureol's account raises a host of philosophical questions. Is there a sense in which Aureol treats these apparent images as the immediate objects even of veridical perception? Do we really need, in explaining illusions, to say that the apparent object exists and that it has the characteristics it seems to have? Precisely what kind of existence do such objects have if not real existence? In Part II, I return to the first two questions (although not specifically to Aureol), as I consider how Olivi and Ockham remake medieval philosophy of mind without species.

29 "[N]on distinguitur imago seu res in esse apparenti ab esse reali, quia simul coincidunt in vera visione" (I *Scriptum* d. 3 sec. 14 n. 31; II, 698).

30 "[Q]uomodo post visos colores remanent imagines obiectivae, quae etiam erant dum viderentur colores, sed di[s]cerni non poterant" (ibid.).

31 See I *Scriptum* d. 35 art. 1 prop. 1 (I, 751iiE).

The last of these questions is in some ways the most perplexing, however, and this is the question at issue in the present chapter.

The adjective *realis* and the adverb *realiter* are found only in late Latin authors (they are not classical); they stem etymologically from the noun *res*, which often, especially in cognitive contexts, means not just a thing, but a thing in the extramental world. This suggests that the adverb and adjective should be given a similar construal, so that, when something is called *non realis*, the point would be that it does not exist outside the mind. If this were right, then we could make better sense of the idea that images and species might have *esse non realis*. The point would be not that they have nonreal existence but that they have existence only in the mind. Such a claim would be neither mysterious nor controversial.

Although this account may explain why philosophers began thinking of such images and species as nonreal, it is evident that the term *realis* quickly outgrew the narrow meaning just described. We have seen how Aureol, in 2.6 and following, wants to say that apparent images have nonreal existence *outside the mind*. Moreover, Aureol agrees with others that sensible and intelligible species have real, albeit intentional, existence *within the mind* (see n. 41 below). So, obviously nonreal existence is not merely a way of denying extramental existence. Something more mysterious is meant.

What, exactly? Aureol seems to leave us with a choice. On the one hand, we can just accept that he includes in his ontology a mysterious twilight sort of existence: not the real existence of ordinary objects but a kind of limited mind-dependent existence, whose nature is never clearly explained. (Modern proponents of abstract objects will perhaps find this view easier to accept.) On the other hand, we can try to understand his claims about intentional existence in a way that is uncontroversial and accords with common sense. To say that the circle has intentional existence, on this latter line of interpretation, might mean no more than that a circle appears to be there. Aureol, one might suggest, finds it useful to analyze appearances as if they were objects. But he doesn't mean to hold the absurd view that there are such objects, and hence he is constantly reminding the reader that such entities are not real. To say, then, that appearances are not real is to say that they don't exist.<sup>32</sup> To say that they have intentional existence is to say merely that

32 This is how Aquinas seems to deal with such concepts as *blindness*: "Blindness doesn't have any existence *in rebus*." But this doesn't mean that blindness exists on some other level, for blindness is a thing that is "in itself nonexistent." ("[A]liquid, quod est in se non ens, intellectus considerat ut quoddam ens. . . . Caecitas non habet

they appear. I don't know if this commonsense interpretation can be maintained; only further textual study can decide the question. But it is hard to see much middle ground between the two views I've sketched. It seems that Aureol is either claiming something highly implausible or making a perfectly unexceptional claim in a highly exceptionable manner.

#### 4. FROM FICTIONS TO ACTIONS (OCKHAM)

Aureol influences Ockham's thinking about intentionality. As we will see in Chapter 5, Ockham criticizes Aureol's account of sensory illusions at length. But Ockham follows Aureol's treatment of intentional existence, at least inasmuch as Ockham thinks of intentional existence as incompatible with real physical or even real nonphysical existence.

Because he rejects the existence of all species, Ockham has particular reason to attack Aquinas's account of the manner of their existence. In the course of arguing against species *in medio*, Ockham describes a proposal according to which "color exists in the visible object purely materially, whereas in the eye it exists immaterially, and in the medium it somehow exists both immaterially and spiritually."<sup>33</sup> (In keeping with Scholastic custom, Aquinas isn't mentioned by name in the text. But Ockham clearly has him in mind.) When he gets around to rejecting this view, Ockham flatly denies that colors exist immaterially, in any strict sense of the term:

- 2.7 Color doesn't exist in the visual power immaterially, because if it were received there it would be received in matter and would be extended – just as in the object. And it is the same way for color *in medio*, because it exists there purely materially – just like in the object – and not intentionally or spiritually.<sup>34</sup>

aliquid esse in rebus, sed magis est privatio alicuius esse" [*InMet.* V.9.896].) Elsewhere, he makes it clear that such a nonentity can't exist even in imagination or the intellect, because "non esse cadit in definitione eius . . . et talis non entis non potest concipi aliqua forma neque in intellectu neque in imaginatione" (*QDV* 3.4 ad 6). Here I'm taking issue with Klima (1993), who finds in Aquinas a vast ontology of *entia rationis*, including such concepts as blindness.

- 33 "Item, color existit in obiecto visibili pure materialiter, in oculo autem existit immaterialiter; sed in medio existit aliquo modo immaterialiter et spiritualiter" (*Rep.* III.2; *OTh* VI, 45).
- 34 "Ad aliud dico quod color non existit in potentia [visiva] immaterialiter, quia si ibi reciperetur ita reciperetur in materia et extenderetur sicut in obiecto. Et eodem modo est de colore in medio, quia ibi existit pure materialiter sicut in obiecto et non intentionaliter nec spiritualiter" (*ibid.*, 66). Cf. *ExPhys.* VII.3.4 (*Oph* V, 637).

Ockham's claim is based on the assumption that everyone agrees that the species of a color – if there are such things – are the forms of extended material subjects. But nothing like that, he says, should be said to be immaterial, at least not in the primary sense of the term. And he ends 2.7 by denying as well that colors could exist *in medio* intentionally.

Ockham wants to argue that there is no coherent account of species to be had, and to this end he employs the same dilemma we saw Olivi use above. Species must be either of the same character (*ratio*) as the object by which they are caused or of a different character. They can't have the same character, Ockham claims, relying (in part) on an argument that Aquinas himself accepts: two different colors can't coexist at the same place, but the species of two different colors can. Thus species must have a different manner of existence.<sup>35</sup> But if this is so, then Ockham wants to know which of the ten categories of being they belong in. He concludes that a species would have to be a quality and

2.8 therefore have true, real existence. But it is a mystery how it [a species] is a true material, corporeal quality and truly extended in matter, and yet has only spiritual or intentional existence.<sup>36</sup>

He presses this point even further by insisting that it is contradictory to claim spiritual or intentional existence for something that exists outside the soul:

2.9 A species does not have intentional and spiritual existence. For to say this involves a contradiction, because every being outside the soul is a true thing and has true and real existence in its own way (although not existence as complete as a single castle or house).<sup>37</sup>

35 *Rep.* III.2 (*OTh* VI, 47–48). For Ockham this is strictly an ad hominem argument, because he doesn't think contrary species of colors ever do coexist in the medium. See *ibid.*, 66–67.

36 “[I]gitur habet verum esse reale. Mirum est quomodo illud est vera qualitas materialis et corporalis et vere extensa in materia, tamen solum habet esse spirituale sive intentionale” (*ibid.*, 57). Cf. *ibid.*, 43, 48.

Rega Wood has pointed out to me that Richard Rufus of Cornwall (ca. 1240) asks the very same question about what category species belong to and reaches the same conclusion: that they won't fit into any of the categories. But Rufus takes this to show that species must have their own mode of existence, which he calls species-being. See Rufus's *Speculum animae*, described in Wood (1995). This work has to be considered an important precursor to the dispute in question.

37 “Item, illa species non habet esse intentionale et spirituale, quia hoc dicere includit contradictionem, quia omne ens extra animam est vera res et verum esse reale habet suo modo, licet non ita perfectum sicut unum castrum vel domus” (*Rep.* III.2; *OTh* VI, 60). Cf. *Ord* 27.3 (*OTh* IV, 247).

This last passage displays quite vividly what happened to the notion of intentionality in the later Scholastic period. Aquinas had left open the question of what mechanisms are responsible for the phenomenon of intentional existence. But he had by no means limited intentionality to the soul; in fact, he had explicitly done just the opposite. Despite Aquinas's stand, it seemed just plain obvious to many later Scholastics that intentionality is necessarily and irrevocably linked to the mental (cf. Olivi at 2.4, Aureol at 2.5).

Plenty of scholars in the early–fourteenth century were careful not to assume that intentionality entails some sort of mind-dependent existence. Durand of St. Pourçain, for instance, recognized, in a work roughly contemporaneous with Ockham, that intentional existence was being used in two senses. Strictly, Durand says, intentional existence is contrasted with real existence, and in this sense “those things are said to have intentional existence that exist only through an operation of intellect.” In a broader sense, he says, light and other physical things can have intentional existence insofar as they have weak or incomplete existence.<sup>38</sup> In the case of light and species *in medio*, this incomplete existence manifests itself in their being transparent: they act not as end points of perception (*non terminant actum animae*) but as media through which we perceive real colors and other real sensible qualities. This, Durand explains, is how the broad sense of ‘intentional’ is related to the strict sense. Light and species *in medio* are related to cognition – and hence to the strict sense of intentionality – insofar as they are intermediaries through which perception occurs. But he emphasizes that this broad sense of ‘intentional’ “doesn’t exclude their having real existence.”<sup>39</sup>

Many other Scholastics drew a similar distinction, agreeing that although speaking strictly ‘intentional’ ought to be opposed to ‘real,’ nevertheless in a broader sense ‘intentional’ and ‘real’ might not be mutually exclusive. Aureol, too, acknowledged a broader sense of ‘intentional,’ one quite close to Durand’s. There are some real beings, Aureol says, “whose existence consists in a certain inclination so that they don’t make the apprehensive power stop in themselves, but they make it incline toward another.” This, he says, is the way sensible species and species *in medio* exist, and he calls it a kind of intentional

38 “Esse intentionale potest dupliciter accipi. Uno modo prout distinguitur contra esse reale, et sic dicuntur habere esse intentionale illa quae non sunt nisi per operationem intellectus. . . . Alio modo dicitur aliquid habere esse intentionale large, quia habet esse debile” (II *Sent.* d. 13 q. 2; 155rb).

39 II *Sent.* d. 13 q. 2 (155rb–vb).

existence.<sup>40</sup> But considered strictly, Aureol says, intentional existence should be contrasted with real existence, and in this sense he denies that species exist intentionally. Species *in medio* and in the senses, he says, are truly multiplied and exist subjectively (i.e., they have the real, concrete existence that is the opposite of objective existence).<sup>41</sup> Such species are mind-independent; even in the senses, there might be species without an actual occurrent perception. For Aureol, then, their existence is far too concrete to be intentional – save in what he regarded as an attenuated sense.

Ockham is not entirely oblivious to such distinctions. At one point he shows some sensitivity to the possibility that ‘immaterial’ might be understood in a broader sense. He lists three possible alternative interpretations. A species might be said to exist immaterially if (1) it has a different character (*ratio*) than the form existing in the object; (2) the subject it is received in has a different character than the original subject; or (3) the species has a less complete (or weaker) existence.<sup>42</sup> Both (1) and (2) echo ways in which Aquinas puts forth his notion of spiritual–intentional existence (see, for instance, the first sentence of 1.7). And (3) accords well with Durand’s and Aureol’s less strict sense of ‘intentional.’ Indeed, Aquinas, too, sometimes contrasts intentional existence with complete existence.<sup>43</sup> But if Ockham is aware of these broader interpretations of immaterial existence, then why does he insist on confining immateriality, spirituality, and intentionality to the soul? His reason seems to be that the above are all “metaphorical” ways of speaking and hence don’t deserve to be taken seriously.

40 “Alio modo accipitur intentio non pro esse opposito enti reali, sed pro modo quodam speciali entis realis. Ad cuius evidentiam sciendum est quod entium realium quaedam sunt, quorum esse consistit in quadam tendentia sic quod potentiam apprehensivam non habent in se terminare, sed illam faciunt tendere in aliud” (II *Rep.* d. 13 q. un; as quoted in Maier 1967, p. 433).

Jakob of Metz (as quoted in Decker 1967, pp. 495–96) and Hervaeus Natalis (II *Sent.* d. 13 q. 2; p. 242) both draw distinctions similar to Durand’s and Aureol’s. (I owe these references to Tachau 1988, pp. 95–96.)

41 II *Rep.* d. 13 q. un (quoted in Tachau 1988, p. 99). Cf. Maier (1967) pp. 425–27, 432–33. See also I *Scriptum* d. 9 a. 1 (I, 320iiC), in which Aureol argues that the nonreal, apparent existence of a thing in intellect is based on something real that exists in intellect.

42 *Rep.* III.2 (*OTH* VI, 67).

43 See, e.g., *ST* 1a2ae 5.6 ad 2; *InDSS* 4.45–57 [sec. 62]; *QDV* 27.4 ad 4: “Unde species coloris est in aere per modum intentionis, et non per modum entis completi sicut sunt in pariete.” The Scholastics often referred to intentional forms as having “diminished being” (*ens diminutum*). See Maurer (1950).



Ockham's views about intentional existence are particularly interesting because, although he was never attracted to the idea of sensory objects as existing intentionally outside the mind (see Ch. 5), he did for a while defend the view that intellectual concepts have mere intentional or objective existence. Ockham believed that, whereas the objects of sensory perception are real external objects, the objects of intellect are at least sometimes concepts that exist only in the mind. (I take up in detail his account of sensory perception in Chs. 5 and 7 and his account of intellectual cognition in Ch. 8.) This view leaves Ockham with the question of what those mental concepts are that serve as the objects of intellectual cognition. Rather than appeal to intelligible species or any kind of representation that has real existence in intellect, he argues in his earliest works that mental concepts have objective or intentional existence. He calls such entities *ficta*; they are, he says in his *Perihermenias* commentary,

- 2.10 not true qualities of the mind, nor are they real entities existing subjectively in the soul. Rather, they are only certain things cognized by the soul, so that their existence is nothing other than their being cognized.<sup>44</sup>

He adds that such a *fictum*

- 2.11 can also be called an intention of the soul, because it is not something real in the soul in the way in which a disposition [*habitus*] is something real in the soul. Rather, it has only intentional existence in the soul – i.e., cognitive existence.<sup>45</sup>

In a way similar to Scotus, Harclay, and (to some extent) Aureol, Ockham attributes to these *ficta* a less-than-real existence in the soul.<sup>46</sup>

44 "Sed posset poni quod talia non sunt verae qualitates mentis, nec sunt entia realia existentia obiective in anima, sed tantum sunt quaedam cognita ab anima, ita quod esse eorum non est aliud quam ipsa cognosci" (*ExPer.* I, prooem. sec. 7; *OPh* II, 359). Cf. *Ord.* 2.8 (*OTh* II, 273): "igitur tantum habent esse obiectivum, ita quod eorum esse est eorum cognosci."

45 "Potest etiam vocari intentio animae pro eo quod non est aliquid reale in anima ad modum quo habitus est aliquid reale in anima, sed habet tantum esse intentionale, scilicet esse cognitum, in anima" (*ExPer.* I, prooem. sec. 7; *OPh* II, 360).

46 Ockham's dependence on Harclay is often noted. But there is some unclarity in the secondary literature about the respect in which Harclay was influential. Gál (1971) edits Harclay's *Quaestio de Universali* under the subtitle "Fons Doctrinae Guillelmi de Ockham." The reason for the subtitle is that in this question Harclay asks whether "universale est figmentum" (pars.101–3). Despite the similarity in terminology, it is quite a leap from this discussion to Ockham's. Harclay's point is that universals should be treated as theoretical fictions, in the way that physicists speak of friction-

Ockham makes it clear that these *ficta* aren't said to be intentional *merely* because they exist in the soul. Some things, such as dispositions, have real existence in the soul (2.11). As we'll see, acts of cognition also have a real existence in the soul. *Ficta*, however, exist in the soul in some other way. One aspect of their existence (here, perhaps, one sees Aureol's influence) is that *ficta* exist only while being cognized. For them, to paraphrase 2.10, *esse est cognosci*. They are hence mind-dependent in a way that real beings are not.

It may surprise the reader to see Ockham, celebrated for his emphasis on parsimony, postulating such mysterious entities. I want to reserve until Chapter 8 discussion of Ockham's motives for postulating such inner objects of thought. At that point, we'll be in a better position to consider the special features of intellectual cognition that led him (for a while) to advocate intentionally existing mental representations. What is important for present purposes is to examine Ockham's attitude toward this intentional existence. The role it plays in his philosophy of mind is to give him an account of mental representation at the level of intellect. Intellect's objects, when it cognizes, exist in intellect. Hence, Ockham says that *ficta* "exist in objective existence in just the way that others [i.e., the things represented] exist in subjective existence." Elsewhere, he writes that a *fictum* "exists in fictive existence in the same way the other exists externally." He gives an example to help explain what this means. A castle doesn't really exist before it is built. But it does exist in a way, insofar as it has fictive existence in the mind of the builder.<sup>47</sup> The *fictum* is about the castle – that is, it stands for the castle – inasmuch as it *is* the castle, although this is the 'is' of fictive existence.

less planes. There is no discussion in this question of whether mental concepts have some kind of nonreal existence. Indeed, the ontological status of mental concepts doesn't come up at all.

For reasons I have made clear, it is much more plausible to point to Harclay's discussion of divine ideas as a source for Ockham's *fictum* theory. Adams (1987) rightly sees Harclay's influence as coming from this direction (p. 83). But if this is the respect in which Harclay was influential, then there seems little reason to pick him out rather than Scotus, Aureol, or even Jacob de Asculo (see n. 19) as a special influence on Ockham.

47 "Ex quo patet quod talia ficta sunt talia in esse obiectivo qualia sunt alia in esse subiectivo" (*Ord.* 2.8; *OTh* II, 279). "Et per hunc modum potest dici quod intellectus apprehendens singulare fingit consimile singulare et illud singulare sic fictum non est alicubi existens realiter, non plus quam castrum quod artifex fingit existit realiter antequam producat ipsum, et tamen est tale in esse ficto quale est aliud extra" (*ExPer.* I, proem. sec. 7; *OPh* II, 360).

We'll look in detail at theories of mental representation in Chapter 3. Notice for now simply that the price Ockham pays for this account of mental representation is the obscurity of intentional–fictive–objective existence. As in the case of Aureol, here too it is difficult to say in any detail what this existence involves.

In his later works, Ockham rejects *ficta* altogether and concludes in general that no such fictive existence needs to be postulated anywhere.<sup>48</sup> In its place, he proposes a version of his act theory, whose details I consider in Chapter 8. (For a sketch, see the Introduction, sec. 3.2.) I argue in Chapter 8 that Ockham abandoned *ficta* not so much because he came to have doubts about the concept of fictive existence but because he decided he could give an account of conceptual thought without relying on inner representations beyond the act itself. But even if Ockham was not primarily motivated by scruples over intentional existence, he does sometimes express worries about the concept. In the course of setting out the *fictum* theory, he says that the only objection “of weight” he sees against it is that “it is difficult to imagine” how a real act of intellect can have as its object something that “cannot exist in real nature.”<sup>49</sup> But although this may be the most serious objection to the *fictum* theory he then saw, he didn't find the objection decisive, for he goes on simply to deny the absurdity.<sup>50</sup>

One place where Ockham does let an objection to objective existence stand is in his *Quodlibetal Questions*. By the time these were composed, he had decisively accepted the act theory over the *fictum* theory, and he makes the following remark:

48 Ockham defends the act theory at *Ord.* 2.8 (*OTh* II, 289–92); *ExPer.* I, prooem. secs. 6, 9 (*Oph* II, 351–58, 363–69); *SL* I.12, 15 (*Oph* I, 42–43, 53); *Quod.* III.4, IV.35 (*OTh* IX, 218–19, 472–74); *QPhys.* qq. 1–7 (*Oph* VI, 397–412). There is a fairly extensive secondary literature on the topic of Ockham's conversion from one theory to the other. See, e.g., *OTh* IV, 15\*–18\*; Gál (1967); Adams (1977), (1987), chs. 3–4.

Ockham's views on this subject were influenced by his contemporary confrère, Walter Chatton, who sharply criticizes Aureol's fictive entities because of their mysterious ontological status. (See, in particular, *I Sent.* prologue, q. 2, a. 2.) His views will be considered briefly in Ch. 8, sec. 3.

49 “Et contra istam opinionem non reputo aliquid ponderis nisi quod difficile est imaginari aliquid posse intelligi intellectione reali ab intellectu, et tamen quod nec ipsum nec aliqua pars sui nec aliquid ipsius potest esse in rerum natura, nec potest esse substantia nec accidens, quale poneretur tale fictum” (*ExPer.* I, prooem. sec. 7; *Oph* II, 360).

50 *Ibid.*, sec. 10 (*Oph* II, 370).

- 2.12 There are no such objective beings that neither are nor can be real entities. Nor is there any other little world of objective entities. Rather, that which is no thing [*nulla res*] is altogether nothing [*nihil*].<sup>51</sup>

This is the only place I have found Ockham explicitly rejecting the concept of objective–intentional existence per se. Even here, strictly, there is no argument against the concept, only ridicule.

It is interesting that Ockham does not treat considerations of parsimony as decisive against *ficta*, in the way that he does treat these considerations as decisive against species (see Ch. 5, sec. 4). Although, in the end, considerations of parsimony do play a role in his abandonment of *ficta* (see Ch. 8), Ockham's attitude seems to be that nonreal entities don't count as much against parsimony as do real entities. In other words, a theory that invokes nonreal entities would be more parsimonious than one that invokes the same number of real entities. If this surmise about Ockham's view is right, then it shows something interesting about his principle of parsimony. It shows that the principle is quantitative not qualitative; that is, it restricts the introduction of a larger *number* of entities but does not restrict the introduction of more *kinds* of entities. In this case, it doesn't offend his principle of parsimony to *double* the kinds of existence there are in the world by postulating both real and nonreal existence. But he indicates that it would offend the principle of parsimony to introduce, instead of *ficta*, species that have real existence,<sup>52</sup> even though that alternative would not multiply *kinds* of existence.

For the most part, Ockham doesn't argue against intentional existence; he simply lets it fall out of his account. Once acts of intellect replace *ficta*, there is no need for any sort of mysterious nonreal existence:

- 2.13 And I think that he who wants to hold this opinion [the act theory] will speak more suitably if he were to say that *all* propositions, syllogisms, any sort of intentions of the soul, and universally all things that are called beings of reason are truly positive, real beings and true qualities of the mind really informing the mind – as whiteness really informs the wall and heat the fire.<sup>53</sup>

51 "Ad tertium dico quod non sunt talia esse obiectiva, quae non sunt nec possunt esse entia realia; nec est unus parvus mundus alius entium obiectivorum; sed illud quod nulla res est, omnino nihil est" (*Quod*. III.4; *OTH* IX, 218–19).

52 See *ExPer*. I, prooem. sec. 5 (*OPh* II, 351).

53 "Et qui vult tenere istam opinionem, reputo quod magis dicet convenienter, si dicat

Once Ockham had concluded that mental concepts (including, here, propositions and syllogisms; see Ch. 8) could be identified with acts of cognition, he had no more reason to postulate any kind of nonreal fictive existence. Acts of cognition plainly are “positive, real beings” (2.13). There is, hence, no more need for a spooky ontology. Mental qualities can have the same sort of existence as color in a wall or heat in fire.

By Ockham’s time, the notion of intentional existence had become firmly linked with nonreal, mind-dependent existence. Intentionality was no longer of any help in explaining the mind; rather, the concept was itself badly in need of explanation and could do no more than muddy any waters into which it might be cast. Aureol, for instance, had cited Aristotle and Averroes in support of a distinction between two kinds of entities, intramental and extramental. Each kind, Aureol claimed, has its own manner of existence: “Beings that are not outside the soul are not said to exist unconditionally, but to exist in the thinking soul.” This existence, he argued, should be identified with “intentional and diminished existence.”<sup>54</sup> Ockham, at the time he was advocating *ficta*, pointed to this same division of beings in the soul and beings outside the soul. He took the division to draw a qualitative distinction between two kinds of beings: one kind that exists objectively, the other subjectively.<sup>55</sup> But once Ockham gave up *ficta*, he gave up this qualitative distinction between kinds of existence. All entities have real, subjective existence and can be classified among the ten Aristotelian categories. He continues 2.13 in this way: “And then the division of being into being in the soul and being outside the soul is no different than if being were divided into qualities of the mind and into other

quod omnes propositiones, syllogismi, quaecumque intentiones animae, et universaliter omnia quae vocantur entia rationis, sunt vere entia realia positiva et verae qualitates mentis realiter informantes mentem, sicut albedo informat realiter parietem et calor ignem” (*ExPer.* I, prooem. sec. 6; *Oph* II, 358).

54 “Commentator dicit, IX. Metaphysicae, commento 7, quod entia quae non sunt extra animam non dicuntur esse simpliciter, sed esse in anima cogitativa. . . . Ergo res concepta capit . . . esse intentionale et deminutum” (I *Scriptum* d. 23 art. 2; Pinborg 1980, p. 135). Cf. *ibid.*, p. 136: “Philosophus dividit ens per esse in anima et esse in re extra, V. et VI. Metaphysicae. Omnes etiam loquentes dividunt ens in ens reale et rationis.”

In Aristotle, the distinction is at most implicit, at *Met.* Bk. V ch. 7 (117a23–34). Cf. Aquinas, *InMet.* V.9.889.

55 *Ord.* 2.8 (*OTh* II, 273).

*From fictions to actions*

beings.”<sup>56</sup> Beings in the mind are *qualities*, he says, thereby locating them in one of the ten Aristotelian categories – the categories of real being. (Cf. 2.10, where Ockham denies that *ficta* are “true qualities.”) The result is a step back in the direction of making sense out of the mind. Whatever explanation of cognition will in the end prove satisfactory, we can at least suppose that only one kind of existence – the real kind – will be involved. Ockham did not share the faith of many today that the mind is wholly physical. But if mind must be explained in terms of the nonphysical, at least it need not be explained in terms of the nonreal.

56 “Et tunc divisio entis in ens in anima et ens extra animam non est alia quam si divideretur ens in qualitates mentis et in alia entia.”

## Chapter 3

### Form and representation

It is a fundamental tenet of Aquinas's epistemic theory that all cognition requires an internal representation of the thing cognized. This chapter considers how, according to Aquinas, objects are represented in the senses and intellect and why a number of later Scholastics proposed revisions to Aquinas's account. We will see that medieval theories of mental representation go well beyond a crude theory of resemblance.

Near the beginning of his *De anima* commentary Aquinas writes,

- 3.1 Cognition is brought about through a likeness of the cognized thing in the cognizer. For the thing cognized must in some way be in the cognizer.<sup>1</sup>

He explicitly commits himself to two claims here. For every case of cognition by some subject *S* of some object *O*,

- (a) *S*'s cognition of *O* is brought about through a likeness of *O* in *S*.
- (b) *O* must be in *S* in some way.

Aquinas also implicitly commits himself to a third claim:

- (c) The presence of a likeness of *O* in *S* counts as a way of *O*'s being in *S*.

Aquinas seems to be implicitly limiting the scope of 3.1 to the cognition of external objects. If cognition of one's own inner states were included, then Aquinas would no longer maintain (a). Elsewhere, he makes this point explicit: "one [mode of cognizing] is of those things that are outside the soul, of which we cannot have cognition from these things that are in us. Rather, in order to cognize them, their images or like-

1 "[C]ognitio fit per similitudinem rei cognitae in cognoscente; oportet enim quod res cognita aliquo modo sit in cognoscente" (*InDA* 1.4.20–22 [sec. 43]). See also *QDV* 2.2c; *InMet.* VI.4.1234.

nesses must be brought about in us.”<sup>2</sup> Following Aquinas, I will hereafter assume that the sort of cognition at issue is cognition of the external world.

The crucial word in (a) is of course ‘likeness,’ a standard translation of Aquinas’s *similitudo*. Aquinas constantly refers to species of all sorts – intelligible, sensible, and *in medio* – as likenesses. It is, we will see, in virtue of being a likeness of *O* that a species represents *O*, and that a cognition founded on such a species is of *O*. But it would be a mistake to leap to the conclusion, simply on the basis of the word *similitudo*, that Aquinas explains representation on the basis of resemblance or that species of any sort resemble the things they represent. The question is still open as to the respect in which species are *like* objects or even if they *are* always like objects. One might argue that Aquinas does not intend that we take *similitudo* literally in every case.

Unlike (a), which does not appear to be a particularly unusual claim, (b) and (c) may well strike the reader as odd. It seems obvious, contra (b), that the things we think about – unless we are thinking about our own thoughts or sensations – do not exist within us. And it seems equally obvious, contrary to what (c) at least implies, that a likeness of *O* is not *O* itself. As obvious as both these assertions seem, Aquinas would deny both of them by distinguishing between different kinds of identity. Although it is true that *O* is not in *S*, the likeness of *O* – call this *L(O)* – is in *S*. And although Aquinas would agree that *O* is not numerically identical with *L(O)*, he would contend that the two are formally identical in that *L(O)* is the very form of *O*:

3.2 An intelligible likeness, through which something is intellectually cognized as regards its substance, must be of the same species or rather *must be its species* – just as the form of a house that is in the mind of the builder is of the same species as the form of the house that is in the matter, or rather *it is its species*. For it is not through the species of a human being that one understands of a donkey or a horse what it is.<sup>3</sup>

2 “In auctoritate illa Augustinus distinguit triplicem modum cognoscendi: quorum unus est eorum quae sunt extra animam, de quibus cognitionem habere non possumus ex his quae in nobis sunt, sed oportet ad ea cognoscenda ut eorum imagines vel similitudines in nobis fiant” (*QDV* 10.9 ad sc 1).

For a book-length treatment of Aquinas’s theory of self-knowledge, see Putaliez (1991).

3 “Similitudo intelligibilis per quam intelligitur aliquid secundum suam substantiam, oportet quod sit eiusdem speciei, vel magis speciei eius; sicut forma domus quae est in mente artificis, est eiusdem speciei cum forma domus quae est in materia, vel potius speciei eius; non enim per speciem hominis intelligitur de asino vel equo quid



Here 'species' is being used in a wide sense to mean a form. The primary point of this passage is that the intelligible likeness (or species) of a given object must be the form of that object. As far as intellect is concerned, only the form of a horse is suited to represent a horse. Twice in this passage Aquinas corrects himself in order to emphasize a more subtle point: it's not that the intelligible likeness *belongs* to the same species as the thing it represents. Rather, the likeness actually *is* the species of the thing it represents. Aquinas's claims here (3.2) about intelligible species can be generalized to cover all cases of cognition. Thus he says elsewhere that "every cognition occurs through a likeness' coming about; but a likeness between two things occurs to the extent that there is an agreement in form."<sup>4</sup>

Why, one might wonder, is an agreement in *form* required? Aquinas explains this in two different ways. First, he thinks the only way two things can be similar is if they share a form. This is the claim of the passage just quoted. Elsewhere, he notes that "likeness is considered according to an agreement or sharing of form."<sup>5</sup> So, because cognition is brought about through likenesses (3.1), it involves an agreement in forms. Second, Aquinas holds that "agents act through their forms," and to their forms the actions correspond.<sup>6</sup> So, because cognition is an action, there must be a form corresponding to, and bringing about, cognition. "That by which intellect cognizes is compared to the cognizing intellect as its form: for the form is that by which an agent acts."<sup>7</sup> This form is the species.

Returning, then, to the analysis of 3.1, we can see that in a case of S's cognizing some object *O*, *O* is actually in S but only in a certain (qualified) way. The object itself, a composite of form and matter, is not in S. (Hence, claim (b) would be misleading without the added qualification "in some way.") Object *O* is in S only insofar as its *form* alone is in S. Because Aquinas takes likenesses to be forms, and because L(*O*)

est" (SCG III.49.2266). See also *InDA* III.9.65–86 [sec. 724]; *Quod*. 8.2.2c: "Unde species intelligibilis est similitudo ipsius essentiae rei, et est quodammodo ipsa quidditas et natura rei secundum esse intelligibile, non secundum esse naturale, prout est in rebus."

4 "Omnis cognitio est per assimilationem; similitudo autem inter aliqua duo est secundum convenientiam in forma" (*QDV* 8.8c). Cf. *IV Sent.* 49.2.1c; *QDV* 10.4c.

5 "[S]imilitudo attendatur secundum convenientiam vel communicationem in forma" (*ST* 1a 4.3c). For another interesting discussion of likeness, see *InMet.* X.4.2006–12.

6 "Agens autem agit per suam formam" (*InDA* II.24.20–21 [sec. 551]). See also *SCG* II.98.1842: "Omne agens vel operans operatur per suam formam, cui operatio respondet."

7 "Illud quo intellectus intelligit, comparatur ad intellectum intelligentem ut forma eius: quia forma est quo agens agit" (*ST* 1a 55.1c). Cf. *SCG* II.98.1842.

actually *is* the form of *O*, the presence of  $L(O)$  in *S* counts as a way for *O* to be in *S*. This is (c).

That, in brief, is the Thomistic doctrine of cognitive representation. But what does it really mean? It is easy enough to explain Aquinas's claims in his own terms. But that doesn't always bring one closer to understanding what he is talking about, and this is surely such an instance. So I want to try to say something more precise about these forms – in particular, to try to understand why Aquinas calls them likenesses. Before focusing directly on Aquinas, it will help to frame the discussion by looking at two radically opposed Scholastic proposals.

### 1. THE NATURAL LIKENESS ACCOUNT (WILLIAM CRATHORN)

It was a philosophical cliché for Scholastic authors that cognition is brought about through a likeness of the cognized object within the one cognizing. This cliché, however, obscures vast differences in how cognitive representation was understood. At one extreme stands the work of the fourteenth-century English Dominican William Crathorn.

Little is known about Crathorn; even his first name has been in doubt, although historians have now settled on William.<sup>8</sup> His magnum opus is a question–commentary on the first book of Lombard's *Sentences*, dating from 1330–32, devoted in large part to questions of epistemology, metaphysics, and language.<sup>9</sup> What makes Crathorn's views historically interesting is that he tends to accept traditional Scholastic doctrines about cognition and work them out to their most extreme logical conclusions. One striking instance of this tendency is his theory of mental representation. According to Crathorn, cognitive representations of the external world must have the very qualities of the things they represent. A species of redness must actually be red, and the same goes for other sensible qualities. He defends this claim in the first question of his *Sentences* commentary as his seventh conclusion:

8 The most recent historical findings are presented in K. Tachau's introduction to Robert Holcot (1995). Fritz Hoffmann's introduction to William Crathorn (1988) is the best general source for biographical details and a survey of the (quite limited) secondary literature. The only extended discussion of Crathorn in English is in Tachau (1988), pp. 255–74. See also the ground-breaking research of Schepers (1970), (1972).

9 Johannes Kraus edited one question from this work (William Crathorn 1937). But with that exception, Crathorn's writing was accessible only in manuscript form until Fritz Hoffmann's 1988 edition.

- 3.3 The quality that is an [inner] word and natural likeness of the cognized thing existing outside the soul is of the same species as the thing of which it is a likeness.<sup>10</sup>

The obscurity with which he puts this conclusion conceals the fact that Crathorn is committing himself to an extraordinary position. What he calls “the quality that is a word and natural likeness” is simply any kind of inner cognitive representation. (This is an unusual terminological use of ‘word’ or *verbum*; as we will see in Ch. 8, the Scholastics usually give the term a narrower sense. But this wide sense is clearly what Crathorn intends, as evidenced by the way he switches back and forth in conclusion 7 between ‘word’ and ‘species.’)<sup>11</sup> For Crathorn, such inner cognitive representations must be what we can, after C. S. Peirce, refer to as *iconic* signs: signs that represent in virtue of sharing characteristics with the thing being represented. Crathorn expresses this view in 3.3 by saying that a likeness “is of the same species as the thing of which it is a likeness.” What he means by this, roughly, is that an inner likeness, if it is actually a likeness of the external object, must actually have the qualities that it represents the external object as having. To some extent, Crathorn’s terminology in 3.3 presupposes his own conclusion. As we saw in Chapter 2, one of the crucial issues about species is whether they fit into any category. Ockham, in particular, had denied that species could be a *quality* (see 2.8). Crathorn, however, assumes not only that mental representations are qualities but also that they are *natural* likenesses. As we will see, Crathorn has very strict criteria for what counts as a natural likeness.

It is worth making clear from the start that Crathorn really does hold this position to an extreme degree. Species represent colored objects, he claims, by actually being colored, and they represent hot objects by actually being hot. These claims seem absurd and confused. Indeed, we know that some of Crathorn’s contemporaries were of that opinion as well. But when confronted with the apparently absurd consequence that the intellect or senses would actually become colored when cognizing a colored object, Crathorn simply grants the point. He considers the following objection:

- 10 “Illa qualitas, quae est verbum et similitudo naturalis rei cognitae existentis extra animam, est eiusdem speciei cum re illa, cuius est similitudo” (*I Sent.* q. 1 concl. 7; 117).
- 11 For further evidence of Crathorn’s broader usage, see *I Sent.* q. 1 dist. 1 (71), where he says that a likeness of whiteness generated in the percipient “is called the concept of whiteness or the word [*verbum*] of whiteness.” Crathorn uses *verbum* in a more standard way at q. 7 concl. 8 (341).

*The natural likeness account*

- 3.4 Second, if the aforesaid likeness of color were a true color, then a soul intellectually cognizing color would be truly colored, and one intellectually cognizing heat would be truly hot, which is false.<sup>12</sup>

He replies by accepting the inference in full, but denying that the conclusion is false.

- 3.5 To the second it has to be said that the argument's conclusion is true. A soul seeing and intellectually cognizing color is truly colored, not by any color existing outside the soul but by its likeness, which is a true color. And the same has to be said of a soul intellectually cognizing whenever a natural word of the color itself is formed in it.<sup>13</sup>

As for some of the vexing details, such as what part of the soul actually becomes colored, Crathorn isn't specific.

How could Crathorn believe all this? It is implausible enough to think that the senses become colored or hot (even if the skin becomes hot when feeling something hot). But what would lead Crathorn to think that the intellect becomes colored or hot? (His contemporary Robert Holcot (ca. 1290–1349) sarcastically compares the soul, on Crathorn's account, to a chameleon.)<sup>14</sup> Heinrich Schepers remarks that "the apparently absurd consequences" to which Crathorn is forced reveal how much importance he assigns to the species theory.<sup>15</sup> But this remark misstates the situation. It suggests, first, that one cannot maintain the species theory without being forced into such consequences. This is plainly wrong (as will emerge later if it's not obvious already). Schepers's remark suggests further that what pushes Crathorn toward

12 "Secundo sic: Si similitudo coloris praedicta esset verus color, tunc anima intelligens colorem esset vere colorata et intelligens calorem esset vere calida, quod est falsum" (*I Sent.* q. 1 concl. 7; 119).

13 "Ad secundum dicendum quod argumentum concludit verum. Anima videns et intelligens colorem est vere colorata, nullo colore existente extra animam, sed ipsius similitudine, quae est verus color. Et idem dicendum est de anima intelligente, quandocumque formatur in ea verbum naturale ipsius coloris" (*ibid.*, 120). Compare the fourth objection, and Crathorn's reply:

Quarto sic: Si anima videns colorem esset vere colorata quod oportet concedere, si similitudo coloris existens in ea est verus color, tunc color visus ab anima et existens extra animam ipsam animam coloraret. (119)

Ad quartem . . . Concedo igitur quod color realiter causat colorem in anima. (121)

14 *Sex articuli*, art. 3 (p. 106).

15 "Welche Gewichtigkeit Crathorn der Spezies und der durch sie gezeugten Erkenntnis zumass, wird besonders daran deutlich, dass er mit grossem Aufwand eine These zu beweisen suchte, die ihn zu scheinbar absurden Konsequenzen zwang" (Schepers 1972, p. 113).

these apparently absurd consequences is his advocacy of species. This, too, is wrong. In fact, Crathorn has reasons independent of the species theory for thinking that these apparently absurd consequences must be the case. It's to these reasons that I now turn.

Crathorn's first argument for his theory of representation rests on the assumption that species must be likenesses of external objects in a literal sense:

- 3.6 [1] It is impossible for one quality to be the likeness of another from which it differs in species. [2] But the quality that is the [inner] word of whiteness existing outside the soul is a likeness of it. Therefore, [3] that quality does not differ in species from the whiteness of which it is a likeness.<sup>16</sup>

Premise 2, Crathorn says, "everyone grants." It's easy to see why he might have thought this. A great many Scholastics, including Aquinas, Henry of Ghent, and John Duns Scotus, would have accepted premise 2 – at least verbally. Even Olivi, who rejects sensible and intelligible species, agrees that cognition requires within the cognizer some likeness of the object of cognition. For him, the act of cognition itself is a likeness of the external object (see sec. 5 below). It is true – as we will see in section 2 – that the consensus on this point was not as complete as Crathorn supposes. But the claim was at least plausible from a Scholastic perspective.

What about premise 1? It's here that Crathorn closes off the possibilities for more moderate and subtle accounts of cognitive representation. The argument of 3.6 presupposes from the outset that 'likeness' should be taken literally. If likeness needn't mean actual *iconic* representation, then the doors open wide for objects of one color to be represented by species of another color. Notice that Crathorn limits the premise to the *qualities* of substances. He could hardly have denied that creatures can have a vision of God without belonging to the same species as God.<sup>17</sup> And of course Crathorn was well aware of the famous Aristotelian dictum: not the stone but the species of the stone is in the cognizer. As discussed in Chapter 2, Crathorn interpreted this doctrine to mean that the accidental features of the stone are in the cognizer (2.3). In general, he wants to claim that cognitive representations must have

16 "Impossibile est unam qualitatem esse similitudinem alterius, a qua specie differt. Sed qualitas, quae est verbum albedinis existentis extra animam, est ipsius similitudo. Igitur illa qualitas non differt specie ab illa albedine, cuius est similitudo" (*I Sent.* q. 1 concl. 7; 117).

17 In fact, Crathorn's discussions of how we do see God are revealing test cases for his theory of mental representation. See *I Sent.* q. 1 (137); q. 6 concl. 2 (322–23).

the same sensible accidents as the things they represent. The following is his subargument for premise 1 of 3.6:

- 3.7 The major premise is clear to the senses in the case of such sensibles. For the whiteness of a stone is not the likeness of redness nor vice versa. Likewise cold is not the natural likeness of heat, but the natural unlikeness or naturally unlike.<sup>18</sup>

The conclusion sought here is that a quality can be a likeness of another quality only if both belong to the same species. To be sure, Crathorn makes things easier for himself by focusing only on sensible qualities. He would obviously have an even harder time making an argument of this sort for abstract concepts. (We'll see shortly how he handles those cases.) Crathorn also simplifies matters in another way, by assuming that a cognitive representation will be a representation of only one sensible quality. This isn't the normal case. When one goes to see the Elgin marbles, for instance, one acquires an inner representation of more than just their color and more than just their shape. It's hard to imagine a case in which one would see a stone as *just* white. Our representations of the world are much more complex.

Even if we accept Crathorn's restricted and oversimplified focus, the argument of 3.7 does not appear terribly successful. Can white never be a likeness of red, in any circumstance? Can cold never be a likeness of heat? Notice that Crathorn shifts midway through this passage from talking about likenesses simpliciter to talking about natural likenesses. This suggests that the argument rests on illicitly assuming that 'likeness' must be taken very narrowly, as covering only what Crathorn calls natural likenesses. By the term 'natural likeness,' he means likeness in the strict sense: something that literally resembles another thing. Hence, he contrasts concepts that are natural likenesses of their referents with concepts that signify merely conventionally.<sup>19</sup> This isn't the only reason to fear that Crathorn is presupposing an overly narrow sense of 'likeness.' He also, without remark, shifts to a stronger version of premise 2 in 3.6, claiming that everyone grants that species are *natural* likenesses.<sup>20</sup> If 'likeness' in 3.6 is understood as natural likeness, then the first premise becomes much more plausible. But this leaves the second

18 "Maior patet ad sensum in istis sensibilibus. Albedo enim lapidis non est similitudo rubedinis nec e contra. Similiter frigiditas non est naturalis similitudo caloris, sed naturalis dissimilitudo vel naturaliter dissimilis" (*I Sent.* q. 1 concl. 7; 117). Cf. q. 7 concl. 2 (334).

19 See, e.g., *I Sent.* q. 6 concl. 5 ad 4 (330).

20 "[O]mnes concedant quod illa qualitas, quae est verbum albedinis extra animam, est ipsius naturalis similitudo" (*I Sent.* q. 1 concl. 7; 118).

premise unsupported. It's certainly wrong that "everyone grants" it: Crathorn is quite idiosyncratic in taking species to be actually colored, actually hot, and so on. As we will see in section 3, Aquinas explicitly denies that species are a natural likeness of external objects. So does Crathorn's contemporary, Robert Holcot. Holcot, no doubt with Crathorn in mind, argues that, at least with respect to intellect, there is no natural likeness between species and object: "Univocally, or properly speaking, the species is not a likeness of the object or external thing. If so, they would belong to the same species." Holcot takes this last result to be absurd, even though it is precisely Crathorn's claim (in 3.3). At this point Holcot draws the distinction that we will shortly see Aquinas make: species are likenesses with respect to representation not with respect to existence.<sup>21</sup>

So the argument of 3.6 is in trouble if Crathorn needs to presuppose a strict sense of 'likeness.' There was by no means a general consensus as to whether species were likenesses in any strict sense. And, as noted, the only support for the questionable second premise of 3.6 is an appeal to common consent. There is, however, more to Crathorn's position than is superficially evident. Crathorn does believe that the only kind of likeness is strict, natural likeness. (This explains his shifting from one to the other.) But he has reasons for this belief, which we can see when we keep in mind that Crathorn is speaking exclusively of sensible qualities. To be sure, an object of one color can be a likeness of an object of another color. (A white statue, for instance, can be the likeness of a brown person.) But Crathorn's question is whether anything but red can be a likeness of redness itself. Perhaps the gray stripes in a black-and-white picture of the American flag are likenesses of red stripes. But is the gray in those stripes a likeness of the quality red? I don't think we would say so. Imagine further a color detector that works by reading the frequencies of light emitted from colored objects. Is the machine's internal representation of those frequencies (encoded, say, in binary form) a likeness of a color? Again, it's plausible to deny this. The machine's

21 "Illa res, quae est species in intellectu, non est naturalis similitudo obiecti eo modo, quo duo alba dicuntur similia. . . . Immo duae species sunt similes inter se vere et una species est similitudo alterius, sed non est similitudo obiecti sive rei extra proprie loquendo et univoce, quia sic forent eiusdem speciei. . . . In nullo sunt similes rebus extra in essendo et dicuntur apud philosophos similes in repraesentando, non in essendo, id est quod non sunt essentiae talis naturae, qualis naturae sunt obiecta extra." As quoted in Hoffmann (1972), pp. 235–36. The passage is found in various places in the various manuscripts of Holcot's *Sentences* commentary.

internal representation may be a likeness of some respect of the world it is registering, but it does not seem to be a likeness of the color itself. It is, in general, rather hard to see what could be like redness other than redness. This, I believe, is the thought behind 3.7.

Crathorn's thinking starts with the assumption that mental representation requires likeness. In this he is simply taking the received Scholastic account at its word. The foregoing argument represents an attempt to show that if that initial assumption is accepted, it leads to the implausible conclusions that Crathorn embraces. The apparent result is that if species are likenesses at all, they must be natural likenesses, and hence must actually have the color (temperature, etc.) of what they represent. In a sense, the argument is a *reductio ad absurdum* of the principle that mental representation requires likeness. But rather than reject the premise, Crathorn follows the unusual course of accepting the absurd.

Two further problems with the argument of 3.6–3.7 warrant mention. First, what Crathorn really shows is that a species has to share in the sensible qualities of an object if it is to be a true likeness of the *phenomenological* characteristics of that object. If a sensible species of a red object does not look red, then it is not a likeness of the way the object looks. The species can, however, still be a likeness of the object's redness in virtue of sharing other qualities with the object. This is what one could say about the color detector imagined above. Nothing in the machine is a phenomenological likeness of the color it detects. But the machine really does contain a likeness of that color in that there is some sort of logical resemblance between the wavelength of the light and the binary code in the machine. The likeness of a color is not a likeness of that color's phenomenological characteristics. Indeed, if attention is paid to this point, Crathorn's argument begins to unravel. Why should our inner representations literally be likenesses of the *phenomenological* quality of the external world? There are no good reasons to think the inside of our mind should *look like* the outside world. So this argument for Crathorn's "reductio" fails. One can accept the initial premise, that mental representation requires likeness, and still reject the absurd-sounding consequences.

Second, although Crathorn clearly wants his natural-likeness account to cover such qualities as colors, temperatures, and shapes, it's not obvious how to fill out this list. Crathorn does not think that a species becomes the same size as the external object. He recognizes that we are able to cognize things larger than our head, and he invokes the



theory of perspective to explain how the species need only be “seen under the same angle” as the external object.<sup>22</sup> It doesn’t seem to have worried him, however, that he might be setting a dangerous precedent: if a species can represent the size of a mountain without being that size, why couldn’t it represent the color of that mountain without being that color?

Crathorn has other arguments for his account of mental representation beyond that of 3.6–3.7. Two of these are based on his representationalist theory of perception. According to Crathorn, the immediate objects of perception are internal to the percipient. (See Ch. 7, sec. 2 for details.) It will be enough to look at just one of these two arguments, the fourth one Crathorn gives:

- 3.8 Every visible thing is either light or color. But a species generated in the visual power is visible. Therefore, it is either light or color. . . . So suppose that the color green generates its species in the visual power. That visible species is either a light or a color. It cannot be said that it is a light inasmuch as the name ‘light’ signifies a quality distinct from colors, because light taken in this way is not a natural likeness of the color green. Therefore, it is a color but not of a different species than the color green, because it is not plausible that the color green generates a color distinct in species in the visual power.<sup>23</sup>

The structure of this argument is worth making explicit:

1. Every visible thing is either light or color.
2. A species produced in the visual power is visible.
- ∴ 3. That species is either a light or a color (1, 2).
4. It isn’t plausible that an external color would generate either light or a different color in the visual power.
- ∴ 5. The likeness generated in the senses is the same color (hence the same species) as the generating color (3, 4).

The crucial premises here are the first two. If Crathorn is allowed sub-conclusion 3, then the rest of the argument seems plausible enough. Surely, as premise 4 asserts, a red object isn’t going to generate a light or a different color in the percipient.

<sup>22</sup> *I Sent.* q. 1 concl. 3 (102).

<sup>23</sup> “Omne visibile est lux vel color; sed species genita in potentia viva est visibilis; igitur vel est lux vel color. . . . Generet igitur color viridis speciem suam in potentia viva. Illa species visibilis vel est lux vel color. Non potest dici quod sit lux secundum quod hoc nomen lux significat qualitatem distinctam a coloribus, quia lux sic accepta non est naturalis similitudo coloris viridis. Igitur est color, sed non alterius speciei a colore viridi, quia non est verisimile quod color viridis generet colorem specie distinctum in potentia viva” (*ibid.*, concl. 7; 118).

The crucial question, however, is whether a “visible species” is colored at all. Here Crathorn’s argument is fallacious. Suppose we grant to him his account of perception, on which the species is the first thing seen. Then premise 2 becomes true. But if ‘visible’ is to be understood in this way, so that sensible species are visible, then we are going to want to rethink, and in the end deny, premise 1. All Crathorn says in defense of premise 1 is that “everyone grants the major.”<sup>24</sup> But although it would have seemed uncontroversial to Crathorn’s readers that anything visible is either light or color, the claim is actually uncontroversial only when ‘visible’ is taken in the ordinary way as referring to objects in the external world. If intentional species in the eyes and brain are included among visible things, then we plainly do not want to grant premise 1.

Aquinas would not have been tempted by this argument, because he rejects the underlying representationalism (see Ch. 6). So, he would accept premise 1 and deny premise 2. And when confronted with Crathorn’s argument for premise 2, that “they can’t deny the minor, because they say that the quality [produced in the visual power] is a *visible species*,”<sup>25</sup> Aquinas would likely say that intentional species in the visual faculties are called ‘visible species’ because they are that by which we perceive visible things not because they are themselves visible. Given his charitable nature, Aquinas would doubtless have admitted that the terminology is ambiguous and lends itself to being confused. It was standard practice, for instance, to speak of species being made intelligible – that is, being made intelligible species. For Aquinas, this was just a manner of speaking; he didn’t really mean that intelligible species were the *objects* of intellect, and the same is true for so-called visible species.<sup>26</sup> But it would obviously be easy to slip into confusion on these matters, and such confusions must have been rampant in the writings and disputations of less-gifted philosophers. Crathorn, however, is not so much confused as he is extreme. He saw the strange consequences of the representationalist position, and he embraced them.

Clearly, Crathorn’s position can be taken only so far. It’s not merely implausible but downright incoherent to think that my mental repre-

24 Ibid. Here, Crathorn isn’t exaggerating the degree of consensus. See, e.g., Aristotle *De anima* ii.7 (418a26–b4); Ockham *Rep.* III.2 (*OTH* VI, 56, 60).

25 “Minorem non possunt negare, cum ipsi dicunt quod illa qualitas est species visibilis” (*I Sent.* q. 1 concl. 7; 118).

26 “Unde species visibilis non se habet ut quod videtur, sed ut quo videtur” (*QDSC* 9 ad 6). Cf. *ST* 1a 85.2c; *QDP* 9.5c; *InDA* III.8.264–79 [sec. 718].

sensation of a horse could actually be a horse or that that representation could even have all the *accidental* properties that it represents the horse as having (winning the Preakness, for instance). So, Crathorn needs to limit his claim in some form. As we've seen, he does so by restricting it to sensible qualities. In a later question, he makes this restriction more precise:

- 3.9 But some believed – and perhaps everyone before this time – that to every common univocal term, whether spoken or written, there corresponds one concept that is a mental word naturally like all the things that are implied by such a spoken or written term. But this is true only of spoken or written terms that are the most specific species and whose things signified are essentially alike and of the same species and are sensible and extrinsic to the cognizer – terms such as 'whiteness' and 'heat' and other similar ones. For to such terms there corresponds one concept, which is a natural likeness of the things signified by the terms.<sup>27</sup>

We can summarize the criterion he establishes here as follows: a species will be a natural likeness of one or more things in the external world if and only if those things are (a) sensible qualities and (b) all members of the same most specific species. (The other qualifications he mentions in this passage seem to be entailed by these two.)

On the criterion given, he says that the concepts *whiteness* and *heat* will be natural likenesses of the external qualities. And, as he says elsewhere, the concepts *color* and *animal* will not be likenesses in this way. *Color* violates clause (b) (it is not a member of a most specific species); *animal* violates clauses (a) and (b).<sup>28</sup> In this way, Crathorn can eliminate a large class of concepts that would pose a problem for his account. Even if our cognitive faculties can literally resemble whiteness, they certainly can't resemble color nor, much less, animal. Notice that Crathorn may have a problem at this point, because whiteness itself is not a fully determinate quality: there are kinds of whiteness (and the same goes for heat). But it does at least *prima facie* seem plausible for Crathorn to reply that

27 "Sed aliqui credebant et fere omnes ante tempora ista quod cuicumque termino communi univoco sive prolato sive scripto corresponderet unus conceptus, qui esset verbum mentale naturaliter simile omnibus rebus illis, quae importantur per talem terminum prolatum vel scriptum. Sed istud solum est verum de terminis prolatis vel scriptis, qui sunt species specialissimae et quorum termini significata sunt essentialiter similia et eiusdem speciei et sensibilia et extrinseca cognoscenti, qualis terminus est iste: 'albedo,' et iste terminus 'calor' et alii consimiles; talibus enim terminis correspondet unus conceptus, qui est naturalis similitudo rerum significatarum per terminos" (*I Sent.* q. 11; 375). Cf. *ibid.*, concl. 4 (370–72).

28 See *I Sent.* q. 11 concl. 4 (370–72).

‘whiteness’ in this passage is meant to pick out a fully determinate color: whiteness of a certain intensity, purity, and so on.

In 3.9, Crathorn has in mind his theory of universals, but his claims are meant to apply to mental representations very broadly, both universal and particular. This is an important point: Crathorn’s account of mental representation cuts across the universal–particular distinction, as well as across the intellectual–sensory distinction. Both the concept of whiteness in general and the impression of a particular instantiation of whiteness will be natural likenesses of whiteness – that is, both will actually be white. But the sensory impression of a stone will not itself be a stone (2.3), nor will the sensory impression of a flaming torch being spun around in a circle actually be on fire (although it will have the shape and color of the rotated flame).<sup>29</sup> So, some kinds of universal concepts will resemble the objects they represent. And some forms of sensory cognition will not resemble their objects. Indeed, for Crathorn, the distinction between general concepts and singular sensible impressions is much less rigid than it is for someone like Aquinas. (This is reflected in Crathorn’s broad use of *verbum*, as noted earlier.) Crathorn also refuses to draw an intrinsic distinction between the operations of sense and those of intellect. He says, “the sensory operation with respect to one object is the same thing as the intellectual with respect to another.”<sup>30</sup>

So the natural-likeness claim of 3.3 will apply to only a small class of mental representations: those of a determinate sensible quality. What about other mental representations? One might assume that Crathorn would relent here and acknowledge that representations of this sort are not natural likenesses in his strict sense – maybe not even likenesses at all. But Crathorn does not relent even slightly: according to him, mental representations that are not natural likenesses of determinate sensible qualities are still natural likenesses, but they are natural likenesses of words and sentences. Crathorn says that such terms as ‘animal,’ ‘color,’ and ‘being’ signify “concepts that are the [inner] words and natural likenesses of vocal or written terms and that are conventional signs of the things imported by such vocal and written terms.”<sup>31</sup> So, abstract

29 See *I Sent.* q. 1 concl. 3 (99) for the flaming torch. The example was also one of Aureol’s; see 2.6.

30 “Operatio sensitiva in homine est ita perfecta sicut operatio intellectiva, quia eadem res est, quae est operatio sensitiva respectu unius obiecti, et intellectiva respectu alterius obiecti” (*I Sent.* q. 7; 349).

31 “Et ideo iste terminus vocalis ‘animal’ significat tales conceptus, qui sunt verba et similitudines naturales terminorum vocalium vel scriptorum et signa ad placitum

mental concepts, which stand for no determinate sensible quality, are *conventional* signs. And the reason, for Crathorn, that mental concepts can signify by convention is that they are *natural likenesses* of vocal or written terms, which are (of course) themselves conventional signs. His view, then, is that our concept of color is literally similar to the written or spoken term 'color.' Crathorn's idea of how this works runs as follows: "when the name 'animal' is heard, the hearer forms a concept of that [name], which concept is a conventional sign of all animals – just as is the vocal name 'animal.'"<sup>32</sup> Certain vexing details aren't clear: Crathorn doesn't say whether such a mental concept resembles the shape (or color or size) of the written word, or the wave pattern (or pitch or duration) of the spoken word. But presumably, if he is to be consistent with his overall theory, the concept will be a natural likeness of some determinate sensible quality of the written or spoken name.

The general account is clear enough. Mental representation must occur through natural (i.e., literal) likeness. If the object itself is a determinate sensible quality, then the internal likeness will actually have that quality. Otherwise, the internal likeness will represent that object conventionally, in virtue of being a natural likeness of the determinate sensible qualities of the physical words with which we refer to such objects. The account offers an interesting theory of abstract concepts. Such concepts, if they cannot be tied to determinate sensible qualities, are tied to language. It would appear, on this account, that our range of abstract concepts is limited by our language. If there is no word (or words) to stand for an abstract property in the world, then there can be no concept of that property. More generally, it would appear, on Crathorn's account, that our thoughts are language-like in the most literal sense and, moreover, are like the language we speak. These are implications that would bear further discussion. But we've gone far enough to see how Crathorn understands mental representation.

illarum rerum, quae importantur per tales terminos vocales et scriptos, et similiter est intelligendum de termino scripto" (*I Sent.* q. 11 concl. 4; 372). He continues by saying, "And in a similar way the vocal name 'being' and the written name 'being' signify a concept that is a word and likeness of the vocal term 'being' or the written term 'being.' This concept is a conventional sign of all those things of which the vocal or written term 'being' is a conventional sign. But it [the name 'being'] does not import any concept that is a natural likeness of all those things that are imported by the name 'being,' because no such [concept] exists nor can exist."

32 "[Q]uia audito hoc nomine 'animal' in audiente formatur conceptus illius, qui conceptus est signum ad placitum omnium animalium sicut hoc nomen vocale 'animal'" (ibid.).

2. REPRESENTATION WITHOUT RESEMBLANCE  
(WILLIAM OF AUVERGNE)

Crathorn represents one extreme in the Scholastic debate over mental representation. Others held views like Crathorn's (although never as extreme). Roger Bacon, for instance, also spoke of species as natural likenesses, and he assumes (at least in the sensory case) that species will function as signs in the very way that pictures do. They signify, he says, "on account of a conformity and configuration of one thing to another in their parts and proper characteristics" (cf. 2.2).<sup>33</sup> Many others characterized species as likenesses without ever clarifying the sense of likeness they had in mind. But although the assumption that cognitive representation requires resemblance was widespread during the Scholastic period, it was not universal. Surprisingly, one of the clearest presentations of a nonresemblance theory of mental representation comes from the *De anima* of William of Auvergne (ca. 1180–1249), written about a quarter century before Aquinas became influential. To say that there are objects in intellect, Auvergne remarks, is just to say that signs of those objects are in intellect.<sup>34</sup> In this respect, intellect "is suited to assimilate itself to things and to take on their likenesses and signs." Making the very analogy Holcot would later use against Crathorn (cf. n. 14), Auvergne says that intellect is thus like a chameleon: "it receives in itself likenesses or signs of all the things to which it is linked by this sort of [spiritual] connection."<sup>35</sup>

33 "Secundus modus signi naturalis est quando non propter illationem aliquam significatur aliquid, sed propter conformitatem et configurationem unius rei ad aliud in partibus et proprietatibus, ut imagines et picturae et similitudines et similia et species colorum et saporum et sonorum et omnium rerum tam substantiarum quam accidentium, quoniam omnia haec sunt configurata et conformata aliis" (*De signis* n. 5; p. 83).

34 "[P]onere res in virtute intellectiva non est nisi ponere signa earum in illa" (*De anima* VII.9; p. 215a).

My remarks on Auvergne are based on just a few passages from his *De anima*, passages brought to my attention by Marenbon (1987), p. 110. Much more study is needed. It could very well be that a careful reading of his work would reveal a theory of cognitive representation more developed than my remarks suggest. For the dating of Auvergne's *De anima*, see Moody (1975), p. 10.

35 "Et propter hoc sicut dicitur de animali quod chamaeleon nominatur; sic se habet, et de virtute intellectiva quae omnium rerum, quibus huiusmodi applicatione coniungitur similitudines vel signa in se recipit. . . . sic virtus intellectiva nata est rebus sic applicata se assimilare, similitudinesque vel signa earum assumere" (*De anima*, VII.9; p. 215b).

Auvergne then raises the question of how intellect can understand things that are universal or abstract. In answer, he makes the remark, which he attributes to Aristotle, that we become hot when we feel hot things but not when we intellectually cognize hot things:<sup>36</sup>

- 3.10 On this account, the sign of heat that also exists in the intellective power is beyond any doubt not truly and strictly a likeness of heat – just as you see in the case of names, numbers, and writings about things. These have no likeness with the things of which they are the form [*figura*]. Even in the very pupil of the eye, which is of course still a body, the sign of a square and of a triangular form is not a likeness of it. All the same, a form of this sort is clearly and plainly seen.<sup>37</sup>

In neither intellect nor even the senses are representations always likenesses. How then are these signs, as Auvergne calls them, representations? As an analogous case, he offers words, which obviously do represent objects without being likenesses of them. But evidently, cognitive signs do not represent things in the way language does: conventionally or, in Peirce's terminology, symbolically. Because social convention played no role in establishing the cognitive faculties, it is hard to see how cognitive signs could be symbolic in the way language is.

One way, albeit implausible, to develop the analogy to language is Crathorn's: mental representations are symbolic insofar as they are literally likenesses of words. Another possibility might be to say that, just as language was instituted by social conventions, so cognitive representation was instituted by nature. It might well be, however, that Auvergne offers language not so much as a strict analogy but rather as an instructive instance of his point that signs need not be iconic. Another possibility, then, would be for Auvergne to treat signs as indexical (in Peirce's sense) and exploit the causal connections between the cognitive subject and the world. We will see, in section 4, that Aquinas, Olivi, and Ockham try to do this in various ways.

Auvergne continues 3.10 in an interesting fashion:

- 3.11 But how can it be that one sign existing in the pupil should be the likeness of such a variety of things? For when a single tree is conceived along with

36 "Amplius dicit Aristoteles quod sentientes calida calescimus, non autem intelligentes calidum propter hoc calescimus" (ibid., p. 216a).

37 "Quapropter signum caloris quod in virtute intellectiva et est, proculdubio non est similitudo caloris vere ac proprie: sicut vides in nominibus, et numeris, et in scripturis eorum quae nullam habent similitudinem eorum quorum figura sunt. In ipsa etiam pupilla oculi, quae utique corpus est, signum quadratae et triangulatae figurae non est similitudo illius, et tamen figura huiusmodi clare et plene videtur" (ibid.).

## *Representation without resemblance*

its branches, leaves, and blossoms, [how can it be] that a sign can be in the eye's pupil that is a likeness of that tree and its branches, blossoms, and leaves?<sup>38</sup>

This is evidently meant to be an argument against species as likenesses. But it is unclear whether Auvergne means to be making the rather uninteresting point that it is hard to see how an image of anything so large and complex could be in the eye, or whether he has in mind a more interesting claim about the character of conscious experience. If the latter, the point might be something like the following: conscious experience doesn't normally depict reality in a fully explicit pictorial manner. We can, to be sure, endeavor to pay attention to the details of our experiences. But ordinarily we don't. Ordinarily, we're completely oblivious to the complex structure of branches, leaves, and blossoms; we perceive the world in outline form. At what point, then, do we lose the detail? Are our representations themselves mere outlines; are they, indeed, pictures in any sense? Auvergne's discussion, suggestive as it is, is brief. And he has little to say about the possibilities for noniconic mental representation.

Auvergne's comments do not seem to have had a wide influence on later Scholastics. But we can find in Ockham an account of representation at the level of intellect that is reminiscent of Auvergne's account. In a later insertion into the text of his *Ordinatio*, made after he had become disenchanted with his early *fictum* theory of universal concepts (see Ch. 2, sec. 4), Ockham writes that "one not pleased by this opinion" can hold

3.12 that a concept and every universal is some quality existing subjectively in the mind, which by its nature is the sign of an external thing, just as an utterance is the sign of a thing instituted by convention.<sup>39</sup>

A mental concept is a sign "by its nature." But Ockham apparently doesn't mean that it will be a natural *likeness* of the external object. On the contrary, he draws the same comparison to language that Auvergne had used. This comparison seems meant to distinguish this alternative account from an iconic account. The earlier *fictum* account, which he

38 "Qualiter autem esse potest ut signum unum in pupilla existens tantae rerum varietatis similitudo esset: cum enim arbor una cum frondibus, folisque, et floribus suis conspicitur, quod signum potest esse in pupilla oculi quod sit similitudo ipsius arboris, et frondium eius, florumque, et foliorum" (ibid.).

39 "Cui non placet ista opinio de talibus fictis in esse obiectivo potest tenere quod conceptus et quodlibet universale est aliqua qualitas existens subiective in mente, quae ex natura sua ita est signum rei extra sicut vox est signum rei ad placitum instituentis" (*Ord.* 2.8; *OTH* II, 289–90). Cf. *SL* I.14, 15 (*Oph* I, 47–54).



had just finished describing, is iconic.<sup>40</sup> He had also, earlier in the same chapter, considered and then rejected a number of other accounts on which a mental concept would be “a true singular thing and numerically one” but would represent many things (i.e., be a universal) in virtue of being “a *quasi* natural likeness of those things” – like a statue in a way, he says.<sup>41</sup> (Notice the implication of adding the qualification ‘quasi’: Ockham, contrary to what Crathorn would later assume, won’t even make his *opponents* hold a view on which such concepts are literally natural likenesses.) Ockham wants the account of 3.12 to contrast with these earlier likeness accounts. Hence the analogy to language.

Ockham, however, makes it clearer than did Auvergne that the analogy to language goes only so far. Mental concepts do not signify conventionally, he says, but are naturally determined as a representation of one thing and not another. As to how he conceives of this natural signification, he explains as follows:

3.13 Nor does it seem more absurd to be able to call up some qualities in the intellect that are naturally signs of things, than that brute animals and human beings naturally emit some sounds that are naturally suited to signify certain other things.<sup>42</sup>

Ockham’s point is that not all signifying sounds are significant by convention. Groans, he says, are signs of sickness and sadness, and laughter is a sign of inner mirth. The same account should be given, he thinks, for universal concepts.<sup>43</sup> These examples seem chosen to emphasize that he is not giving an iconic account of such concepts.

Although Ockham gives this line of argument in both his revisions to the *Ordinatio* and his *Summa logicae*, it’s not clear how far he really wants to go in rejecting an iconic account. He definitely thinks that

40 See Adams (1987), pp. 122–41. Adams’s discussion is useful as far as the earlier *fictum* account is concerned. But she assumes, without sufficient evidence, that Ockham’s later act account also rests on similarity.

41 “Istae opiniones concordarent in hac conclusione, quod universale esset in se vera res singularis et una numero; respectu tamen rerum extra esset universalis et communis et indifferens ad res singulares et quasi naturalis similitudo illarum rerum, et propter hoc posset supponere pro re extra. Et esset aliquo modo de isto universali sicut de statua respectu simillimorum: illa enim esset in se singularis et una numero, et tamen indifferens ad illa simillima, nec plus duceret in notitiam unius quam alterius” (*Ord.* 2.8; *OTH* II, 270).

42 “Nec videtur hoc magis inconueniens in intellectu posse elicere aliquas qualitates quae sunt naturaliter signa rerum, quam quod bruta animalia et homines aliquos sonos naturaliter emittunt quibus naturaliter competit aliqua alia significare” (*ibid.*).

43 See *SL* I.14, 15 (*Oph* I, 49, 53).

sensory cognition takes place in virtue of resemblance.<sup>44</sup> And on several occasions in his later works, he says that even an act of intellectual cognition is a likeness of the external object. One instance is in his *Perihermenias* commentary, in which he says that a universal cognition is of a human being rather than a donkey because it is "in some manner of assimilation more assimilated to a human being than to a donkey."<sup>45</sup> Another instance is in the *Quodlibeta*, in which he denies that only the *fictum* account is iconic: "an act can account for whatever a *fictum* can, inasmuch as the act is a likeness of the object."<sup>46</sup> (For yet another instance, see i.8.) So, Ockham is at best tentatively moving away from a likeness account of mental representation. But the moves he is making, if only tentatively, show that the Scholastics are not entirely wedded to a naive resemblance account.

### 3. FORM AND LIKENESS IN AQUINAS

The preceding two sections demonstrate the range of possibilities that Scholastic philosophers pursued in their attempts to explain cognitive representation. We can now return to Aquinas, to try to make sense of his view. As we have seen, he takes cognition to be a matter of a species informing the cognitive faculty. He distinguishes two ways in which such a species or form can be considered:

- 3.14 Every cognition occurs in virtue of some form that is the source of cognition in the cognizer. But a form of this sort can be considered in two ways – in one way in terms of the existence it has in the cognizer, in another way in terms of the relation it bears to the thing of which it is a likeness. In virtue of the first relation, it makes the cognizer actually

44 See, e.g., *Quod.* I.13. (I'll return to this text in sec. 4.)

45 "[T]ali cognitione magis congoscitur sive intelligitur homo quam asinus. Et hoc non est aliud quam quod talis cognitio aliquo modo assimilationis magis assimilatur homini quam asino" (*ExPer.* I, prooem. sec. 6; *OPh* II, 355). See 8.16 for further discussion.

Andrea Tabarroni's (1989) discussion of these issues is insightful and imaginative (see pp. 206–17). He argues that, at the conceptual level, Ockham has "abandoned the iconic model" (p. 214). Although he acknowledges that Ockham speaks of concepts as likenesses, he doesn't think that it is in virtue of being likenesses that they represent external objects. But this passage from *ExPer.* seems to disprove his interpretation.

46 "[P]er actum potest salvari quidquid salvatur per fictum, eo quod actus est similitudo obiecti" (*Quod.* IV.35; *OTh* IX, 474).

## Form and representation

cognize; in virtue of the second, it determines the cognition to some determinate cognizable thing.<sup>47</sup>

On the one hand, a species or form can be considered insofar as it produces a cognition. Looked at in this respect, questions arise as to precisely what causal role the species plays, and whether Aquinas's account leaves any room for the cognitive faculties themselves to be active in this process. (This will be the subject of Ch. 4.) On the other hand, a species determines the *content* of the cognitive act, in making the cognition to be that of a certain sort of thing. It is this latter role of species that concerns us now. How does a species determine the cognition to be about one thing and not another? In the beginning of this chapter, we saw that Aquinas's answer to this question rests on species' being likenesses, a view he explains in terms of a formal identity between species and external object. But this way of talking did not seem very illuminating.

We can begin to understand Aquinas's notion of likeness by looking at the distinction he frequently draws between natural and representational resemblance:

- 3.15 The likeness of any two things to each other can be considered in two ways. In one way, in terms of an agreement in nature, and such a likeness is not required between cognizer and cognized. . . . In another way, as regards representation, and this likeness of cognizer to cognized is required.<sup>48</sup>

Here, it would appear that likeness is a symmetrical relationship: if one thing is a likeness of a second, the second is also a likeness of the first. (Elsewhere, he notes that the likeness relationship is, strictly speaking, nonsymmetric. An effect may be a likeness of its cause, but the cause is

47 "Omnis cognitio est secundum aliquam formam quae est in cognoscente principium cognitionis. Forma autem huiusmodi dupliciter potest considerari: uno modo secundum esse quod habet in cognoscente, alio modo secundum respectum quem habet ad rem cuius est similitudo. Secundum quidem primum respectum facit cognoscentem actu cognoscere, sed secundum respectum secundum determinat cognitionem ad aliquod cognoscibile determinatum" (QDV 10.4c). See also IV *Sent.* 49.2.1 obj. 8; ST 1a 55.1c, 56.1c, 75.5c, 85.2c.

48 "Similitudo aliquorum duorum ad invicem potest dupliciter attendi: uno modo secundum *convenientiam in natura*, et talis similitudo non requiritur inter cognoscentis et cognitum. . . . Alio modo quantum *ad repraesentationem*, et haec similitudo requiritur cognoscentis ad cognitum" (QDV 2.3 ad 9).

See also QDV 2.5 ad 5, 8.1c; IV *Sent.* 49.2.1c. ST 1a 4.3c distinguishes three kinds of likenesses, but this division was evidently not made with cognition in mind, as it is not clear into which category the likeness of species to object would fit.

not ordinarily considered a likeness of the effect.)<sup>49</sup> Two kinds of likenesses are described in this passage: likeness in terms of an *agreement in nature*, and likeness as regards *representation*. (In another passage, Aquinas refers to the latter as likeness through *information*.)<sup>50</sup> Only likeness as regards representation is required for cognition.

The best way to understand this distinction is to work through some examples. Aquinas illustrates agreement in nature with this example: intellect's species of a stone is less like the stone than is the sense's species of a stone, because the former is more removed from matter.<sup>51</sup> Because an intelligible species has fewer characteristics of the stone than does the sensible species, the intelligible species is less like the stone *naturally*. The real point of this example, however, is to emphasize that the lack of natural likeness is no barrier to representational likeness. Intellect, indeed, cognizes "more perspicuously" than do the senses, despite having less of a natural resemblance.<sup>52</sup>

This distinction between kinds of likenesses comes in the context of discussing God's knowledge. God, in fact, presents the most vivid case of the distinction between natural and representational likeness:

3.16 Therefore, although there is a minimal likeness of a creature to God in terms of agreement in nature, there is nevertheless a maximal likeness insofar as the divine essence represents a creature with complete distinctness. And that is why the divine intellect is the best at cognizing a thing.<sup>53</sup>

Even though the natural resemblance of God to creatures is minimal, God is nevertheless able to have – with complete distinctness – cognitive representations of creatures. Such representations *are* likenesses of creation, but they are likenesses in the representational sense (whatever that turns out to be). In other passages, Aquinas gives a number of other examples. Color vision, he indicates, involves representational and not natural likeness.<sup>54</sup> Nothing in the visual faculty

49 QDV 4.4 ad 2. See also QDV 23.7 ad 11.

50 "Est quaedam assimilatio secundum *convenientiam in natura*, . . . sed haec non est illa quae requiritur ad scientiam. Est etiam quaedam assimilatio *per informationem*, quae requiritur ad cognitionem; sicut visus assimilatur colori, cuius specie informatur pupilla" (I *Sent.* 34.3.1 ad 4).

51 "Minor est similitudo similitudinis quae est in intellectu ad lapidem quam illius quae est in sensu cum sit magis a materia remota" (QDV 2.3 ad 9).

52 "[E]t tamen intellectus perspicacius cognoscit quam sensus" (ibid.).

53 "Quamvis igitur sit minima similitudo creaturae ad Deum secundum convenientiam in natura, est tamen maxima similitudo secundum hoc quod expressissime divina essentia repraesentat creaturam, et ideo intellectus divinus optime rem cognoscit" (ibid.).

54 I *Sent.* 34.3.1 ad 4.

becomes actually colored when one sees a colored object (see Ch. 1, n. 8.) But, once again, representational likeness is sufficient for cognition. Moreover, a simple idea can be a representational likeness of a composite thing, and a likeness existing *in actu* can be a representational likeness of what exists *in potentia*.<sup>55</sup> Further, an immutable idea (i.e., God's) can be a representational likeness of something mutable.<sup>56</sup>

What all these examples show is that Aquinas has a very special sense of likeness in mind when he contends that species must be likenesses of the objects they represent (as in 3.1). Indeed, it does not appear that he conceives of cognitive representation as iconic in any sense. It doesn't trouble him in the least to say that God is able to cognize the world *expressissime* while having only the most minimal likeness to the world. As 3.15 explicitly says, no agreement in nature is required for cognition. We should take Aquinas at his word when he says this, which will lead us to conclude that his position is much closer to Auvergne's than to Crathorn's. Compare Crathorn's contention (2.3) that the accidental qualities of the stone are in the soul with this remark of Aquinas's:

3.17 All that is required between cognizer and cognized is a likeness in terms of representation, not a likeness in terms of an agreement in nature. For it's plain that the form of a stone in the soul is of a far higher nature than the form of a stone in matter. But that form, insofar as it *represents* the stone, is to that extent the principle leading to its cognition.<sup>57</sup>

On Aquinas's account, no accidental qualities of the object need be possessed by the cognitive agent. The representational content of a species is not determined by anything so crude as eidetic resemblance.

This conclusion should be no surprise, given the claims of Chapter 1. If the argument there is correct, then the distinguishing feature of cognition is that the cognizer receives impressions (i.e., forms) from the environment *intentionally* – without, that is, taking on the features of that environment. If human cognition required that a species *naturally* resemble its object, then humans would be far less suited to receive the forms of other things, and to that extent would be less cognitive (cf. 1.1). We might ask again a question posed in Chapter 1, this time addressing

55 QDV 3.5 ad 2.

56 QDV 2.13 ad 1, 4.4 ad 2.

57 "Inter cognoscens et cognitum non exigitur similitudo quae est secundum convenientiam in natura sed secundum representationem tantum: constat enim quod forma lapidis in anima est longe alterius naturae quam forma lapidis in materia, sed in quantum repraesentat eam sic est principium ducens in cognitionem eius" (QDV 8.11 ad 3). Cf. IV Sent. 49.2.1 ad 7.

it to Crathorn's theory: if Crathorn were right, then how efficient would our cognitive faculties really be? A human being built along Crathorn's lines would work about as well as a computer constructed out of Christmas-tree lights. Aquinas's insistence, then, that species must exist intentionally in a cognizer provides another reason for thinking that his talk of likeness has to be understood in a broader sense than one might at first suppose.

Despite the explicitness of the texts we have been discussing, it is often assumed that Aquinas and other Scholastics held a quite naive resemblance theory. Martin Tweedale, for instance, describes Scholastic accounts in general as holding to

- 3.18 a fairly literal interpretation of the view that the species are likenesses of external objects. For example, the visual species can be viewed as a little colored image that is propagated through the air and comes to exist in the eye. In general what happens is that the property of external things that is perceived is recreated in the sense organ without its actually being a property of that organ.<sup>58</sup>

Tweedale isn't explicitly discussing Aquinas. But of the figures I've mentioned so far, only Crathorn and Bacon hold a theory of the sort described. Neither Aquinas nor William of Auvergne takes such a literal view. Nor could such a position be ascribed to Olivi or Ockham, neither of whom countenances species of this sort at all. Of course, it may be that further study would reveal a great many Scholastics who did hold the kind of view Tweedale describes. But we should measure the achievement of medieval theories of cognition on the basis of the most sophisticated efforts we can find. To this extent, at least, we are seeing that Tweedale's generalization is misleading.

If my interpretation is correct, Aquinas's sensible and intelligible species aren't iconic signs or eidetic likenesses at all; it seems that they need share none of the qualities of the objects they represent. One might reasonably complain, however, that this conclusion is tenable only at the expense of ignoring Aquinas's repeated claim that a species *does* share at least one quality with the object it represents, namely, its form. (Or rather, as 3.2 insists, the species *is* the form of what it represents.) We can sharpen this worry by considering Aquinas's favorite example

58 Tweedale (1990), p. 36. He and many others have pointed out that *intelligible* species cannot be anything like pictures or images. Tweedale writes, "In fact it is hard to see at this point how being similar to the object could mean anything more than representing it" (p. 38). But he takes this to be more of a problem for the theory than anything else.

of representational (as opposed to natural) likeness: a statue representing a human being:

3.19 All that is required for cognition is a likeness of representation, not a likeness of conformity in nature – as, for instance, we are led by a golden statue to the memory of a certain human being.<sup>59</sup>

In this example, representational likeness rests on natural likeness. The statue represents a human being in virtue (at least in part) of having the same shape as a human being. But notice that Aquinas emphasizes that the statue is golden. Even in this case, he reminds us, the extent of the natural resemblance is limited. There may also be considerations involved beyond likeness. The statue may be shaped more like my uncle than like George Washington, yet it can represent George Washington all the same. This shows that more than mere resemblance of shape is involved. Yet Aquinas's example, as he conceives it, is a case in which representational likeness is brought about through natural likeness. A statue reminds me of a certain human being in virtue of sharing the form (the shape) of that human being. And this example seems quite analogous to human cognition. The senses or intellect represent a cognitive object by sharing the form of the object. Might it be true in cognitive contexts as well that sharing the form entails some element of natural resemblance, analogous to the shape of the statue?

I think this suggestion should be rejected for two reasons. First, Aquinas explicitly and repeatedly says that no natural resemblance is required for cognition (cf. 3.15, 3.17, 3.19). Second, although there is an obvious respect – shape – in which the statue is naturally like a human being, it is not clear how the cognitive faculties become naturally like the things they cognize. Even though Aquinas is constantly speaking of the cognitive faculties as taking on the form of their objects, it is hard to see how to translate this formal identity into a natural resemblance. When a statue and a human being are said to share the same form, that can be explained in terms of a common physical shape. When two objects share the accidental form of being red, that, too, can be explained in terms of a common physical property. And when two things are said to be humans, that can be explained by common functional properties: being rational animals. But nothing like this seems to hold in the case of the formal identity between cognizer and cognized. This is particularly clear for the case of intellect. Intellect thinks of a horse

59 “Ad cognitionem non requiritur similitudo conformitatis in natura sed similitudo repraesentationis tantum, sicut per statuam auream ducimur in memoriam alicuius hominis” (QDV 2.5 ad 5). Cf. SCG IV.26.3632.

through the form of a horse (cf. 3.2). But surely thinking of a horse does not give the intellect any of the physical or functional attributes of a horse. Indeed, how could Aquinas think the opposite? How could an immaterial faculty take on any of the physical characteristics of a horse? How could the intellect take on any of the functional attributes of a horse?<sup>60</sup>

One might appeal, at this point, to Wittgenstein's remarks about representation in the *Tractatus*: "What a picture must have in common with reality in order to be able to depict it – correctly or incorrectly – in the way it does, is its pictorial form" (2.17). For Wittgenstein, it is a conceptual fact about pictures that they represent through formal identity, where this is understood in terms of some kind of logical isomorphism. Along these lines, one might interpret Aquinas as holding that the formal identity of cognizer and cognized rests on a logical resemblance that is more abstract than ordinary cases of natural likeness. This is an attractive line of thought, and we could spend some time imagining ways in which it could be operating in Aquinas.<sup>61</sup> But before we let our imagination take us too far we should recall that Aquinas never seems to have suggested that formal identity should be understood in these terms. On the contrary, he repeatedly denies that any kind of natural resemblance is needed for cognition. So I don't see that the Tractarian approach is likely to be any more than superficially related to Aquinas's own account.

In ruling out a crude resemblance theory of mental representation, I do not mean to insist that Aquinas holds there is no respect in which the senses and intellect, when informed by species, come to resemble the objects of cognition. It may be, for instance, that there is some physical symmetry between the senses and the external world – in the way that there is a correspondence of some sort between the text on this page and a part of my computer's hard drive. And there might be some sort of logical isomorphism between intellect and its objects – maybe in much the way the *Tractatus* suggests. But it seems to me that, on Aquinas's account, it is a contingent matter as to how representational likeness is

60 Hilary Putnam (1994a) tries to develop this identity-of-form doctrine in terms of function.

61 This is how Ausonio Marras (1974) reads Aquinas: "Clearly the sensation is not literally blue in the same sense in which the object is blue, but it must be so in some analogous sense, for the sensation must have some structural property by virtue of which it can be a sensation of *blue* and not, say, of *red*. In other words there must be an isomorphism between the properties which properly characterize sensations and the properties which characterize their proper objects" (p. 217).



accomplished. In some cases, like the golden statue (3.19), representational likeness requires natural likeness. But this is only contingently so – in this case, it rests on a contingent fact about the conventions of medieval sculpture. (It's not so obvious, in contrast, that Henry Moore's sculptures represent in virtue of a natural likeness to the human form.) In other cases, there may be representational likeness with just a minimal natural likeness – he says explicitly that this is the case for God (3.16). But in a minimal sense, anything can be said to resemble anything. There's always some respect in which one thing is like another. So, in God's case, it can't be that this minimal natural likeness is what determines the content. The attitude Aquinas's account suggests is that one should go case by case in trying to understand the mechanisms behind representational likeness. Aquinas does not speculate on what the precise mechanisms might be in any given instance. To this extent, one might say that Aquinas doesn't have a *theory* of representation at all, in the sense that he doesn't give a determinate account. But it's not clear to me that a theory of representation in that sense would have been appropriate for the thirteenth century, given the available data. It is one of the merits of Aquinas's approach, I would suggest, that he does not rest his account of mental representation on any particular kind of likeness.

The bottom line is that no natural likeness is required for representation: species need not be iconic signs. All the same, Aquinas persists in using the Aristotelian terminology of 'form' and 'likeness' to describe cognition. 'Likeness' must be taken quite broadly in cognitive contexts such as 3.1. In claiming that species are likenesses, Aquinas clearly does want to rule out the possibility that they represent entirely by convention: as if God might have *arbitrarily* determined that mental state *M* will represent object *O*.<sup>62</sup> But although the relationship cannot be entirely arbitrary, it is surely part of the point of Aquinas's distinction between representational and natural likeness that species aren't likenesses in an eidetic sense. A likeness theory of representation need not be a crude theory of representation.

The relationship of formal identity must also be understood quite broadly – broadly enough to include cases in which the fact of representation is determined by contingent rules or laws. Analogously, the question of what a statue represents (and therefore what it is formally identical to) depends on the norms of artistic representation. (Think again of

62 See *InPH* I.2.196–208 [sec. 19], where Aquinas makes it clear that signs do their signifying either conventionally or through some kind of similarity.

Henry Moore's work.) When identity of form is understood this broadly, we can say that the English spoken and written signs for *dog* share the same form, even though the likeness between the two is governed by convention. Similarly, whether a certain physical state of the sense organs has a certain representational content will be determined by, among other things, contingent physical laws. Formal identity is a broad enough notion, however, to extend even this far.

#### 4. CAUSAL CONNECTIONS

Although by and large the Scholastics rest their accounts of representation on the notions of likeness and formal identity, they also think that causal connections between object and internal representation play a role in determining cognitive content. This claim was uncontroversial by Ockham's time. John of Reading, for instance, takes it as a commonplace that "an intellection leads to the cognition of an object either through being caused by it or through being its natural likeness."<sup>63</sup> Reading sees no need even to argue for this claim. But there were important differences, as we will see, in how causal connections were taken to play the role of determining the content of cognitive states.

We saw in 3.14 that Aquinas distinguishes between two functions of intentional species: their role in bringing about a cognition in the agent, and their role in making that cognition have a certain content. It is because a species is a certain sort of form that the resultant cognition represents a certain sort of thing. This story is complicated, however, when it is particulars that are being cognized. To apprehend some particular  $x$ , Aquinas claims, it is not enough just to have an intentional species that is identical in form with  $x$ . Having such a species is sufficient to make the cognition a cognition of some  $x$ . But to cognize that particular  $x$ , further conditions have to be met.

In his *Disputed Questions on the Soul*, Aquinas gives the following example:

- 3.20 If someone were to cognize the entire order of the sky and the stars and their measure and movement, he would know through intellect all the future eclipses: how many, in what place, and at what time they were to come. But this doesn't suffice for a true cognition of singulars.<sup>64</sup>

63 "Per hoc enim intellectio ducit in cognitionem obiecti: vel quia ab eo causatur vel quia est eius similitudo naturalis" (Gál 1969, n. 284).

64 "[S]i aliquis cognosceret totum ordinem caeli et stellarum et mensuram et motus eorum sciret per intellectum omnes futuras eclipses, et quantae, et quibus in locis, et

What does suffice for a true cognition of singulars? It's not immediately obvious how to answer this question. Aquinas goes on, after 3.20, to give the example of knowing a particular human being: "If I were to speak of a human being who is white, musical, and whatever else of this sort I were to add, it would not yet be a singular. For it is possible that all these things put together could apply to more than one person."<sup>65</sup> The problem is not that there is always more than one *actual* entity that fits one's representation. That might not be true. Rather, the problem is that there are *possible* entities that could fit the description. This problem, Aquinas says, cannot be resolved by trying to make one's representation more and more determinate. No matter how many accidental features are added on, the representation will not pick out a particular. He writes in the *Quodlibetal Questions*,

- 3.21 For something singular to be cognized its likeness insofar as it is particular must be in the cognitive power. But every form is common considered in itself. Hence, the addition of form upon form cannot be the cause of individuation.<sup>66</sup>

Aquinas's solution is that somehow the likeness of matter must be present in the cognizer.<sup>67</sup> This is an obscure claim to make, as Aquinas acknowledges by saying that this must "somehow" be the case. He has ruled out the possibility of cognizing singulars by knowing them to be a certain size, shape, color, texture, and so on. How, apart from all this, can one apprehend the matter itself?

The kind of matter that Aquinas has in mind is what he calls determinate matter (*materia signata*). By this he means matter "considered with the determination of dimensions," for example, this particular flesh and bones. Nondeterminate matter is considered as "abstract from here and now," for example, flesh and bones in general.<sup>68</sup> What this distinction suggests is that apprehending determinate matter involves locating an

quibus temporibus futurae essent. Sed hoc non sufficit ad veram singularium cognitionem" (*QDA* 20c). This is a favorite example of Aquinas's: see, e.g., *ST* 1a 57.2c, 86.4c; *QDV* 8.11.

65 "[S]i dicam hominem album, musicum et quantumcumque huiusmodi addidero, nondum erit singulare. Possibile est enim omnia haec adunata pluribus convenire."

66 "[A]d hoc quod singulare aliquod cognoscatur, oportet quod in potentia cognoscitiva sit similitudo eius, in quantum particulare est. Omnis autem forma de se communis est: unde additio formae ad formam non potest esse causa individuationis" (*Quod.* 7.1.3c).

67 "Unde ad hoc quod particulare cognoscatur, oportet quod in cognoscente non solum sit similitudo formae, sed aequaliter materiae" (*ibid.*).

68 *QDV* 2.6 ad 1. See also *InDT* 5.2.

object in a certain time and place. Aquinas often suggests as much. He writes in the *Summa theologiae*,

- 3.22 To cognize a singular in this way in its universal causes is not to cognize it as it is singular – i.e., as it is here and now. For an astronomer cognizing a future eclipse by computing the celestial movements knows the eclipse in the universal, but not as it is here and now – unless he receives that knowledge through the senses.<sup>69</sup>

The reference to here and now does suggest at first glance that knowing things as particular requires locating them in time and space. But the example itself shows that this can't be right: the principal thing the astronomer does know is when and where the eclipse will occur. So to 'know things as here and now,' it clearly is not sufficient to be able to locate the object in time and space. What seems to be required, Aquinas suggests in the last clause of the passage, is the right sort of causal connections. God, for instance, is able to apprehend particulars in virtue of his being the cause of particulars.<sup>70</sup> Human beings are able to know particulars only when they are in direct causal contact with those particulars through the senses. Thus in 3.22, Aquinas says that the only way the astronomer can know the eclipse as a particular is by sensing it. What 'here and now' means, in the case of human beings, is something like "right in front of you."

This seems like a promising account. But what is peculiar is that, despite implying the importance of the causal relationship, Aquinas explains apprehending particulars in terms of apprehending the determinate matter of the object. This is hardly a perspicuous way to refer to the causal connection between cognizer and cognized. What leads him to speak in this obscure manner, I believe, is that he refuses to allow the causal facts themselves to determine the content of our cognitions. If it were the causal facts themselves that determine content, then the question of whether I am seeing one individual or another, or thinking about one thing and not another, might not be answerable in terms of my intrinsic state alone. Any inner representation I have might be equally a likeness of two different objects, it would seem. And the reason I am seeing or thinking about one of them and not the other would seem to

69 "[S]ic cognoscere singulare in causis universalibus, non est cognoscere ipsum ut est singulare, hoc est ut hic et nunc. Astrologus enim cognoscens eclipsim futuram per computationem caelestium motuum, scit eam in universalis; et non prout est hic et nunc, nisi per sensum accipiat" (*ST* 1a 57.2).

70 See *I Sent.* 36.1.1; *II Sent.* 3.2.3; *QDV* 2.5, 8.11; *ST* 1a 14.11, 57.2; *QDA* 20; *SCG* I.50, 63, 65; *Quod.* 7.1.3. This traditional understanding of Aquinas on God's knowledge is challenged in Stump and Kretzmann (1995).

be entirely a function of the causal connections between me and that particular object. It's because I'm in a certain causal relationship to  $x$  and not to  $y$  that I am said to see  $x$ . But this is not how Aquinas tells the story. He seems to insist on invoking features that are internal to the cognizer, in order to determine representational content. Thus, he says that we must somehow apprehend the object's matter (n. 67). In other words, we must have within ourselves a representation of something that picks out that particular object and no other. It is matter, according to Aquinas, that individuates particulars. Hence, he uses the notion of apprehending matter – something internal to the percipient – to explain why one particular is being apprehended and not another.

In another passage, Aquinas distinguishes cognizing particulars universally and singularly. Something is cognized universally when "it is cognized according to universal causes and principles." It is cognized singularly "when it is cognized as here and now and according to all the individuating conditions."<sup>71</sup> The latter, he goes on to say, is obtained only through the senses: again, this suggests the need for the proper causal relationship. But what does he mean by representing a particular "according to all the individuating conditions?" This is just another way of saying that the determinate matter of the object must be apprehended. Once again, it seems, he resists saying that the causal connection itself could explain why we apprehend one particular and not another. He wants something internal to the percipient that fixes the content of the cognition. But, as noted already, it's hard to see what representing the matter of a particular could amount to beyond representing the particular's spatial and temporal location – along, perhaps, with its size, shape, color, texture, and so on. But if this is all apprehending the matter involves, then Aquinas still has a problem. More than this is needed to represent a particular; as we've seen Aquinas emphasize, one's representation of a given object can be made as detailed as you like and still not be a representation of *that* thing. You can know all the accidental features of a future eclipse, or of a given human being, but unless you are in the correct causal relationship to that particular event or object, you don't, strictly speaking, have "a true cognition of singulars" (3.20).

If we turn to William Ockham, we can see this very same problem even more explicitly. As noted in section 2, Ockham holds that cognitive content is determined in part by the likeness of cognizer to cognized.

<sup>71</sup> "Ut intelligatur aliquid singulariter cognosci quando cognoscitur prout est hic et nunc et secundum omnes condiciones individuantes, universaliter vero quando cognoscitur secundum principia et causas universales" (QDV 8.11c).

(How literally this should be taken is an open question.) But, like Aquinas, Ockham also invokes causal facts to play a role in representation independent of resemblance. To bring this point out, he imagines a case in which there are a great number of things all perfectly similar. (He suggests thinking of angels of the same species or – and for us this is perhaps a more readily imaginable example – whitenesses of the same intensity.) If mental representation is determined entirely by resemblance, one shouldn't be able to cognize just one of those objects, a result he takes to be wrong. Ockham solves this puzzle by asserting that "likeness is not the precise cause of why one thing is intellectually cognized and not another."<sup>72</sup> Instead of analyzing representation entirely in terms of resemblance, Ockham proposes that causal facts be invoked to explain what makes a cognition that of one particular and not another.

- 3.23 Although in the case proposed the intellect is equally assimilated to all the individuals, nevertheless it can determinately cognize one and not another. But this is not on account of assimilation; rather, the cause is that every naturally producible effect determines for itself, by its nature, that it should be produced by one efficient cause and not by another.<sup>73</sup>

So, intellect apprehends one particular and not another because only one is the efficient cause of the cognition.

Notice, however, that Ockham is not appealing to the causal relation itself as a determinant of mental content. Instead, he appeals to the character of the act of cognition, which "determines for itself" that it should be caused by one thing and not another. That can't mean that the effect literally determines what its cause will be: the cause, after all, precedes the effect. What that means, presumably, is that given an effect of such and such character it is a determinate fact (barring divine intervention) that it was produced by one cause and not another. Ockham adds later that the intellection "*by its nature* determines for itself that it leads intellect to the cognition of that object by which it is partially

72 "Et ideo similitudo non est causa praecisa quare intelligit unum et non aliud" (*Rep.* II.12–13; *OTh* V, 287). Ockham also discusses this issue, much more briefly, in *Quod.* I.13. See, too, *Ord.* 3.9 (*OTh* II, 546–47).

73 "Nam licet intellectus assimiletur omnibus individuis aequaliter per casum positum, tamen potest unum determinate cognoscere et non aliud. Sed hoc non est propter assimilationem, sed causa est quia omnis effectus naturaliter producibilis ex natura sua determinat sibi quod producatur ab una causa efficiente et non ab alia" (*Rep.* II.12–13; *OTh* V, 288).

caused.”<sup>74</sup> In these passages, Ockham doesn’t rest representation on the mere presence of causal relations. Instead, he thinks that information about these causal connections is somehow carried in the object. Indeed, he writes that a cognition “so determines for itself to be caused by that object that it cannot be caused by any other.”<sup>75</sup>

Presumably, he has in mind the following sort of example: from the direction and speed at which a billiard ball is moving, I can infer a great deal about the cause of that motion. If I’m allowed a microscope, then perhaps (by looking for bits of paint and so forth) I can even figure out the surface color of the object that caused the motion. But the example shows the limitations of Ockham’s account. It is of course true that one can learn a great deal about the cause from the effect. But no matter how many accidental qualities of the cause I’m able to deduce, I’m still not in a position to say whether the cause was this green ball moving in such a way or an all-but-identical green ball moving in exactly the same way. And it’s discrimination of this kind, between perfectly similar particulars, that Ockham needs.

However Ockham is to be understood here, it is important to see that he is not appealing to relational facts to explain mental representation. Representation, on his account, is entirely a product of the internal properties of the cognizer. It is not the causal fact itself that determines the intentional content of a cognition but the fact that the cognition’s own nature is such that it could have been caused only by a certain particular. Ockham, characteristically, makes one exception here to allow for the case of divine intervention – but this exception just proves the rule. Ockham has us imagine God, acting supernaturally, as the complete cause of a cognition of one of those identical whitenesses. How then, he asks, could the cognition be of one whiteness and not another? His reply makes it quite clear that it is not relational facts that determine the intentional reference of a cognition but always the intrinsic nature of the cognition. If God were to cause in us a cognition of some particular, he writes, that cognition would be the kind that “would determinately be caused if it were caused by a creature.”<sup>76</sup>

74 “[E]x natura sua determinat sibi quod ducat intellectum in cognitionem illius obiecti a quo partialiter causatur” (ibid.; *OTh V*, 289).

75 “[I]ta determinat sibi causari ab illo obiecto quod non potest causari ab aliquo alio. Et ideo sic in eius cognitionem ducit quod non ducit in cognitionem alterius” (ibid.). For some discussion of these passages in the context of Ockham’s causal theory, see Adams (1987), pp. 756–58.

76 “Et ideo per illam intentionem [causatum a Deo] cognoscitur illud singulare a quo determinate causaretur si causaretur a creatura” (*Rep.* II.12–13; *OTh V*, 289). Cf. *Ord.* 35.3 (*OTh IV*, 458).

Appealing to a counterfactual here doesn't make sense if Ockham thinks representation is determined by the causal connections themselves. But the reply makes perfect sense once we see that he is appealing to the intrinsic nature of the intellection. For us to cognize a particular thing, we have to have a cognition that is naturally apt to be caused by that particular; the *actual* causal sequence (whether natural or supernatural) makes no difference.<sup>77</sup> Marilyn Adams, after discussing these passages, writes that "it is far from clear how this 'aptitude' of a mental act to be caused by one particular creature and not by another is to be understood."<sup>78</sup> Ockham's point *is* obscure if we take him to be claiming that mental representation is determined by causal-relational properties. But once we recognize that it is not the causal facts per se that matter but the cognition's internal aptness to be caused by one particular and not another, then his point fits perfectly with the rest of his position.

Like Ockham and Aquinas, Olivi also invokes causal facts to explain how cognitive content is made particular. But Olivi's account is importantly different from both Ockham's and Aquinas's. For Olivi, it does seem to be the bare causal facts themselves that fix the reference of a cognition to a particular object.

3.24 An act [of cognition] represents the individual character and proper quality of its object not because it exists in corporeal matter or because it flows from a corporeal form limited to here and now, as the Aristotelians say, but rather because it is terminated at the individual object, insofar as it is individual.<sup>79</sup>

Here Olivi rejects the Aristotelian slogans we saw in Aquinas. The reason the content of a cognition is of one particular object and not

77 "Si dicis potest causari a solo Deo: verum est, sed semper nata est talis visio causari ab uno obiecto creato et non ab alio; et si causetur naturaliter, causatur ab uno et non ab alio, nec potest [ab altero] causari" (*Quod. I.13; OTh IX, 76*).

My reading of Ockham on this point differs from the standard interpretation. A. S. McGrade (1988), for instance, writes that, for Ockham, "an intuition's being of a particular thing does not depend on its having within or about it something uniquely like that thing, but on its being *caused* by the thing" (p. 426). This is right as far as it goes, but it passes over the crucial question of whether it is the causal relationship itself or something intrinsic to the representation that determines the content. Cf. Normore (1990), pp. 56–57.

78 Adams (1978), p. 455.

79 "Quod igitur actus iste repraesentet individualement rationem et proprietatem sui obiecti, non habet ex hoc quod sit in materia corporali aut ex hoc quod fluat a forma corporali ad hic et nunc limitata, sicut Aristotelici dicunt, immo potius ex hoc quod terminatur ad obiectum individuale, in quantum individuale" (*II Sent. q. 72; III, 37*).



another is that that one particular is a terminus or end point in the causal connections between cognizer and object. My visual content is of my car and not another identical-looking car, because it is my car that's in the proper causal relationship to my act of seeing. Olivi notes that the same analysis works for memory: a memory is of one particular and not another because of "the act itself by which it has been caused and which it expresses, as that act is or was terminated in such an object."<sup>80</sup>

Olivi's account shows promise where Aquinas's and Ockham's are obscure. According to Olivi, a cognition has a particular object for its content simply because the act "is terminated at it, insofar as it is this individual and not another."<sup>81</sup> (Ch. 4 will take up Olivi's rather idiosyncratic account of *how* an external object serves as the terminus of a cognitive act.) Olivi has no need to appeal to some obscure but uniquely referring inner state, as both Aquinas and Ockham do. The latter are both committed to what Hilary Putnam has called "methodological solipsism," the assumption that the content of an individual's psychological states can be accounted for entirely in terms of that individual's internal states.<sup>82</sup> This assumption leads Aquinas and Ockham to introduce considerable obscurity into their accounts. Even though Aquinas recognizes that causal connections play a role in determining cognitive content, he doesn't allow that the causal relation itself could determine this content. Instead, being cognized as "here and now" (3.22) gets explained in terms of cognizing the materiality of the particular object and all its individuating conditions – obscure ways of talking indeed. The hold that this assumption has on Ockham is even more clear. Ockham's theory insists – at the price of great obscurity – that these causal data be contained within the effect. The act of cognition is determined by its own nature to have a certain individual as its content (3.23), and no external facts or external relationships need be invoked.

Putnam claims that methodological solipsism has been with us since the seventeenth century.<sup>83</sup> But far from being an invention of the early modern period that has come to seem natural to us only after a long period of indoctrination, this is a view that has been with us at least

80 "Species vero memorialis ex tali actu relicta habet hoc ex ipso actu a quo est causata et quem exprimit, prout ipse actus est vel fuit in tale obiectum terminatus" (ibid.).

81 "Quia actus cognitivus obiecti individualis est terminatus in ipsum, in quantum est hoc individuum et non aliud: ideo de essentia talis actus est quod sit propria similitudo huius individui, in quantum huius, et quod non sit similitudo aliorum individuorum eiusdem speciei, pro quanto individualiter differunt ab isto" (ibid.).

82 The phrase 'methodological solipsism' was introduced in Putnam (1975), p. 220.

83 Putnam (1981), p. 19.

*The act itself as likeness*

since the Scholastic era.<sup>84</sup> Olivi deserves considerable credit for being willing to reject the assumption. As a result of doing so, his account of cognizing particulars takes on a clarity entirely lacking from what Aquinas and Ockham have to say on the subject.

5. THE ACT ITSELF AS LIKENESS

As discussed already, Olivi and (to some extent) Ockham maintain the standard account that mental representation is (at least partly) a matter of likenesses, even though they deny that there are any species in the senses or intellect that could be likenesses. The position they both take is at first glance a puzzling one: each holds that the act of cognition is itself a likeness of external objects. In Part II, we will see in some detail their motivation for eliminating species. But this is an appropriate time to consider how, on their act accounts, likeness explains representation. They express themselves in much the same way on this point. Olivi argues as follows:

- 3.25 When it is said that 'every cognition occurs through an assimilation to the object,' this is just as if it were said that 'every cognition occurs through an actual cognition just like the object and expressive of it.'<sup>85</sup>

According to Ockham,

- 3.26 No prior assimilation through a species is required before an act of intellectually cognizing. Rather, the assimilation suffices that comes about through the act of intellectually cognizing, which is [itself] a likeness of the thing cognized. For, according to Augustine, when something is intellectually cognized as it is in itself, then the intellection will be just like the thing, and no other likeness is required beyond the intellection.<sup>86</sup>

84 Tweedale (1990) has in fact noted this about Scholastic theories in general, although not for the reasons I have been setting forth: "Entities are mental, or carry intentional existence, in virtue of what they are intrinsically, not in virtue of relations they bear to things outside themselves" (p. 44). John Haldane (1989a), in contrast, has explicitly argued that Aquinas would reject methodological solipsism (pp. 29–30).

85 "[C]um dicitur 'omnis cognitio fit per assimilationem ad obiectum,' perinde est acsi dicatur 'omnis cognitio fit per actualem cognitionem obiecto simillimam eiusque expressivam'" (*II Sent.* q. 74; III, 130).

86 "Non requiritur ante actum intelligendi aliqua assimilatio praevia quae sit per speciem. Sed sufficit assimilatio quae fit per actum intelligendi qui est similitudo rei cognitae. Quia secundum Augustinum, V *De trinitate* [XV, nn. 21–23], quando aliquid intelligitur ut est in se, tunc intellectio erit simillima rei, et non requiritur praeter intellectionem alia similitudo" (*Rep.* II.12–13; *OTH* V, 295–96).

One might well wonder how these claims could be true. How could an *act* of cognizing be a likeness of an *object*? One can make sense of holding that one act is like another or that one object is like another. But it's hard to see how acts could be like objects. This, it seems, isn't merely to compare apples and oranges but to compare apples with the act of, say, throwing apples.

Notice that Ockham refers to the *actus* of cognizing and Olivi to a *cognitio actualis*: these Latin terms might be taken more broadly as referring to the actualized state of intellect rather than to the act itself. Then it would be less problematic to understand their claims about likeness. We can readily understand, for instance, how an actualized sculpture is a likeness of the thing it represents. The *actus* of the sculpture just is its shape, and so the likeness claim in this instance is unproblematic.<sup>87</sup> But in intellect's case, its actuality is its activity, its action. Olivi explicitly says that it is the cognition, not the cognitive faculty, that is like the object, whereas Ockham holds that what is like the object is the intellection, not the intellect. (Such claims accord nicely with Aristotle's famous remark that if the eye were an animal, *sight* would be its soul (*De anima* ii.1, 413b20). That is to say, the eye's first actuality is not a state but an activity.) So, the claim of 3.25 and 3.26 must be that the action itself of cognition is similar to the object of cognition. The puzzle, therefore, remains.

Unfortunately, neither Olivi nor Ockham tells us how he understands this likeness between act and object. But I think their view is nowhere near as implausible as it might seem. We might, to begin with, insist that a more fair analogy is to compare apples with the tasting of apples. The tasting of apples has certain characteristics, such as being sweet, tangy, crunchy, and so on. These are all characteristics that we can attribute to the apple. Therefore tasting an apple is like an apple. This, generally, is what Olivi and Ockham want to claim.

I see three objections that one might make to this example. First, it is vitiated by the primary–secondary quality distinction. Sweet and tangy aren't characteristics that belong to the apple; hence, in these respects, tasting an apple is not like an apple. Second, it's not the tasting of the apple that has certain characteristics but the experience of tasting the apple. One does not ordinarily say, after all, that tasting the apple is sweet; one says that the experience of tasting the apple is sweet. In tasting an apple, one has a certain experience, and it is the experience, if anything, that is like the apple. Third, the example of tasting an apple

87 I owe this line of thought to Scott MacDonald.

cannot be extended to perception in general. The act of seeing an apple, for instance, is neither red nor round. So, even if the account were plausible for the case of tasting, it does not work for other sensory activities.

To the first objection, I might reply that the Scholastics drew no such distinction between the primary and secondary qualities and were untroubled by the practice of attributing colors, sounds, tastes, and the like, to external objects. More to the point, the objection raises no particular problem for Olivi and Ockham that it does not raise just as well for any other theory of perceptual representation based on likeness. If neither sweetness nor redness is in the apple, then any likeness-based theory faces a difficulty on this point. As we've seen already, not all of the Scholastics were committed to taking 'likeness' in the strongest and most literal way. Neither Olivi nor Ockham are committed to holding that our sensations are literally sweet or red. But the relevant point for now is that, as concerns these issues, their act theories put them in no worse position than any of their contemporaries are in.

The second objection presupposes a distinction Olivi and Ockham would reject. For them, the experience of tasting the apple just is the act of tasting that apple. Neither would deny that we do, in a sense, have experiences. They agree, in other words, that our perceptions have a certain phenomenological feel. But they resist the tendency to reify such experiences or feels; they reject the assumption of their contemporaries that a distinction can be made between the experience and the act. The perceptual act has a certain feel, and that feel *is* like the external object. But their view is that that feel just is the act, and so for them it is equally true – and far less misleading – to speak of the act itself as being like the external object. Olivi and Ockham might rather have spoken of tasting sweetly and seeing redly, as has been suggested by recent philosophers. This way of speaking, just as peculiar sounding, serves to make much the same point: there are not both acts of perception and inner experiential objects of those acts. The experience is the act.

When the third objection claims that seeing an apple is neither red nor round, one of several things might be meant. First, this might be another way of saying that it is the experience that is red and round, not the actual seeing. We've seen, in the reply to the second objection, how Olivi and Ockham would deny this. Second, the claim might mean that no aspect of seeing an apple, neither the act itself nor the experience, is red or round. This is an objection to the likeness theory of representation in general, and so it is not a special problem for Olivi and Ockham. Further, it is not clear that either would insist that the sensation of an

*Form and representation*

apple is either red or round. Neither explains the kind of likeness they think is involved in perception.

I conclude that there is no obvious special difficulty with treating acts of cognition as themselves likenesses. This aspect of their act theories is not inherently implausible.

## Chapter 4

### Passivity and attention

THE Stoics, as Boethius recounts their views in *The Consolation of Philosophy*, held that the mind is a merely passive recipient of outside images, incapable of playing any active role in cognition. By their account, Boethius says,

- 4.1 the mind orders nothing by its own motions, but lies merely receptive under the impressions of bodies, reflecting empty images in a mirror in place of reality.<sup>1</sup>

Experience shows that such a view cannot be right, Boethius claims, and so he has Lady Philosophy come to the defense of the mind's own active capacity to analyze and judge: "in sensing physical objects, the mind is not marked by affections, but by its own force it judges the affections impressed on the body."<sup>2</sup> By and large the Scholastics were on Boethius's side in this dispute. Indeed, the way Boethius sets out the terms of the argument, it is hard to see how anyone could fail to be on his side. *Of course* the mind isn't totally passive. But a disagreement develops in the later Middle Ages over how and even whether an Aristotelian account of cognition, such as that championed by Aquinas, could account for the senses' and intellect's activity in cognition. One of the most interesting figures in this dispute is Peter John Olivi, who sees the Aristotelian theory's failure to answer this question as a decisive mark against it. Olivi's position seems to have influenced later writers and, in particular, to have motivated detailed attempts by John Duns Scotus and William Ockham to give a broadly Aristotelian resolution of

1 "Sed mens si propriis vigens/ Nihil motibus explicat,/ Sed tantum patiens iacet/  
Notis subdita corporum/ Cassasque in speculi uicem/ Rerum reddit imagines" (Bk. V, meter iv). For better evidence as to the Stoics' actual views, see Long and Sedley (1987), sec. 39.

2 "Si in sentiendis, inquam, corporibus animus non passione insignitur, sed ex sua vi subiectam corpori iudicat passionem" (ibid., prose v).

the issue. In the first section of this chapter I will discuss how the Aristotelian account gets into such a problem, again taking Aquinas as my model. In section 2, I consider Olivi's anti-Aristotelian argument, and in section three reconsider Aquinas in light of Olivi's claims. A closer reading of Aquinas, I argue, shows him to have a much more interesting and subtle view than he is normally given credit for. Finally, I take up Scotus's and Ockham's treatments of this question, as it concerns intellect. Ockham, as we will see, seems to side with Boethius's Stoics; he reaches the implausible-sounding conclusion that the mind is entirely passive. Scotus, in contrast, attempts a compromise between the two sides.

### 1. COGNITION AS A KIND OF BEING AFFECTED

The starting point for medieval Aristotelians on the question of whether cognition is active or passive is Aristotle's claim in the *De anima* that both sensation and intellection are "a kind of being affected."<sup>3</sup> Aquinas seems to accept this picture of human cognition all the way up, from the external senses to intellect. The human cognitive powers receive the likenesses of external objects – that is, sensible and intelligible species – and are thereby cognizant of reality. This is the manner of receiving, Aquinas says, "by which a patient receives from an agent."<sup>4</sup> By 'patient,' Aquinas means anything affected by something else, considered simply as such. (What is an agent in one respect may be simultaneously a patient in another respect.) There are, however, different ways of being a patient as well as different kinds of agents, and intellect and the various senses are not affected in the same way by species.

In *Quodlibet* 8.2.1, Aquinas's most extended discussion of these issues, he gives a taxonomy of the various kinds of agents and patients:

4.2 [A1] There is one kind of agent that is of itself sufficient for bringing its form into the patient. . . .

[A2] But there is another kind of agent that of itself suffices for bringing its form into a patient only if another agent intervenes. . . .

There is likewise diversity on the part of patients. [P1] For there is one kind of patient that in no respect co-operates with the agent. . . .

3 "Sentire enim pati quoddam est," as the medieval translation had it: *De anima* ii.11 (423b32). At iii.4 (429a15), he says that if intellection is like sensation, then it will either be a kind of being affected [*pati quoddam*] or something else of this sort. The rest of iii.4 makes it clear that he does take intellection to be "a kind of being affected."

4 "Anima humana similitudines rerum quibus cognoscit, accipit a rebus illo modo accipiendi quo patiens accipit ab agente" (*Quod.* 8.2.1c).

[P2] But there is another kind of patient that does co-operate with the agent.<sup>5</sup>

These four classes combine in various ways. Sensation is an event of the A<sub>1</sub>–P<sub>1</sub> type. The agent in question is the intentionally existing species, transmitted from sensible object to sense organ. This species *in medio*, as an agent of the A<sub>1</sub> type, is completely sufficient for producing a sensation.<sup>6</sup> In the case of sight, for instance, colors produce an effect in the air – a species *in medio* – which is transmitted to the visual sense, where the species produces vision. Paraphrasing Aristotle, but also giving his own view, Aquinas says, “air altered by color makes the pupil be of this sort (i.e., makes it have a certain quality), impressing on it a species of the color.”<sup>7</sup> Correspondingly, the senses are patients of the P<sub>1</sub> type: entirely passive, in no respect working along with the agent.<sup>8</sup> Rejecting what he characterizes as Plato’s position, Aquinas says, “to sense is not to move, but rather to be moved.”<sup>9</sup> At this point in the cognitive process no agent is needed to make the transition from species *in medio* to a species *in sensu*. Although some medievals had argued for a so-called agent sense to make the species sensible, Aquinas denies that any such power is needed.<sup>10</sup> Species *in medio* are sufficient by themselves for the job.

The situation is different for the inner senses, such as imagination (or phantasia) and the common sense.<sup>11</sup> Imagination involves an agent of the A<sub>1</sub> type and a patient of the P<sub>2</sub> type. External objects are “sufficient agents” with respect to the imagination: “for the action of a sensible

5 “Est enim quoddam agens quod de se sufficiens est ad inducendum formam suam in patiens. . . . Quoddam vero agens est quod non sufficit de se ad inducendum formam suam in patiens, nisi superveniat aliud agens. . . . Similiter etiam est diversitas ex parte patientium. Quoddam enim est patiens quod in nullo cooperatur agenti. . . . Quoddam vero patiens est quod cooperatur agenti” (*Quod.* 8.2.1c). For two other extended discussions of the passivity of cognition, see *II Sent.* 36.1.2c and *III Sent.* 15.2.1.2.

6 “Et secundum hoc, res quae sunt extra animam . . . ad sensus enim exteriores se habent sicut agentia sufficientia, quibus patientia non cooperantur, sed recipiunt tantum” (*Quod.* 8.2.1c). Cf. *InDA* II.23.225–31 [sec. 547]; *III Sent.* 14.1.1.2c.

7 “Dicit ergo primo quod aer immutatus a colore facit pupillam huiusmodi, id est facit eam aliqualem, imprimens in eam speciem coloris” (*InDA* III.12.142–44 [sec. 773]).

8 *Quod* 8.2.1c. See also *III Sent.* 14.1.1.2c; *InDA* II.6.131–37 [sec. 305].

9 “Non enim sentire est movere, sed magis moveri” (*SCG* II.82.1641).

10 See, e.g., *QDA* 4 ad 5; *ST* 1a 79.3 ad 1; *QDSC* 9c. On the subject of an agent sense, see Gauthier’s notes to *InDA* III.3.224–28 (p. 186), although it is dubious whether that passage is actually addressing the problem of an agent sense.

11 For an account of Aquinas’s four inner senses, see *Intro.*, sec. 2; and *ST* 1a 78.4.



thing does not stop in the senses but extends beyond up to the phantasia or imagination."<sup>12</sup> Unlike the five external senses, however, the imagination is a patient of the P<sub>2</sub> type: it is able to manipulate the sensible species it receives and form new images of things never seen – like golden mountains.<sup>13</sup> Here, Aquinas allows that the human cognitive faculties play an active role.

At the level of intellective cognition our faculties play an even more active role. Like sensation, intellective cognition is a kind of being affected; the intellect receives intelligible objects much as the senses receive sensible objects.<sup>14</sup> But there is a crucial difference between the senses and intellect, because intellect itself is incorporeal. Intellect's operation is thus subject to the restraint that bodies cannot make an impression on the incorporeal. And so the need arises for a distinction between two different powers of intellect, active and passive. The active power, which in the Aristotelian tradition is called the agent intellect, is responsible for making the imagination's species, the so-called phantasms, incorporeal and intelligible. Aquinas characterizes the agent intellect as "a kind of immaterial active power, capable of making other things like itself – that is, immaterial."<sup>15</sup> Thus intellective cognition is of the A<sub>2</sub>–P<sub>2</sub> type. External objects are "insufficient agents" with respect to intellect:

- 4-3 Phantasms move the possible intellect, but they do not suffice by themselves. For they are potentially intelligible, but the intellect is moved only by the actually intelligible. Hence, the action of the agent intellect must intervene, through the illumination of which phantasms are made actually intelligible.<sup>16</sup>

12 "Actio enim rei sensibilis non sistit in sensu sed ulterius pertingit usque ad phantasiam sive imaginationem" (*Quod.* 8.2.1c).

13 "Ipsa enim imaginatio format sibi aliquarum rerum similitudines, quas nunquam sensu percipit, ex his tamen quae sensu recipiuntur, componendo ea et dividendo; sicut imaginamur montes aureos, quos nunquam vidimus, ex hoc quod vidimus aurum et montes" (*ibid.*). Cf. *InDA* III.4.252–57 [sec. 633]; *ST* 1a 85.2 ad 3, 2a2ae 173.2c. See Ch. 8, sec. 1, for further discussion of imagination's capacity for forming images.

14 See *InDA* III.7.63–90 [secs. 675–76].

15 "[Q]uaedam virtus immaterialis activa potens alia sibi similia facere, scilicet immaterialia" (*InDA* III.10.156–58 [sec. 739]). See also *ST* 1a 79.1–5; *QDV* 10.6; *QDA* 4.

16 "Sed phantasmata ulterius movent intellectum possibilem. Non autem ad hoc quod ex seipsis sufficiant, cum sint in potentia intelligibilia, intellectus autem non movetur nisi ab intelligibili in actu. Unde oportet quod superveniat actio intellectus agentis, cuius illustratione phantasmata fiunt intelligibilia in actu" (*Quod.* 8.2.1c).

Phantasms are merely “instrumental agents” in this process, whereas the agent intellect is the “principal agent.”<sup>17</sup> These agents operate in tandem; literally, then, they “co-operate” (4.2).

Cognition at this stage does have an active component. But here, as at every other level of human cognition, the process’s distinctively cognitive feature is the reception of forms from without. As Aquinas says, “knowledge is nothing other than the impression or conjunction of the known onto the knower.”<sup>18</sup> This is not of course the whole story. It is only the initial reception of information that is entirely passive at the level of sensation and partly passive at the level of intellect. If one goes beyond this initial point, Aquinas’s account looks quite different. He allows that even the senses do not just passively receive information but also actively make judgments about the information they receive.<sup>19</sup> And at the level of intellect, the reception of species is just the first primitive intellectual operation. The mind goes on, after receiving species, to the active formulation of abstract and complex judgments about the world. (This will be the subject of Ch. 8.)

It is this active side of cognition that allows Aquinas to side with Boethius in his criticism of the Stoics. The Stoic position is shown to be false, Aquinas says, by intellect’s capacity to “compound and divide, compare the highest to the lowest things, and cognize universals and simple forms – things that aren’t found in bodies.”<sup>20</sup> Intellect, Aquinas thus claims, does not just receive the images of physical things: “it has some power higher than bodies.” The exterior senses, in contrast, do “merely receive the images of bodies.” The senses aren’t capable of the higher, active functions of intellect.<sup>21</sup> So, Aquinas takes the Stoic account (i.e., Boethius’s version) to have gone wrong only at the level of

17 “Et sic patet quod intellectus agens est principale agens, quod agit rerum similitudines in intellectu possibili. Phantasmata autem quae a rebus exterioribus accipiuntur, sunt quasi agentia instrumentalia” (ibid.). Cf. *ST* 1a 84.6c; *QDV* 10.6 ad 7; *III Sent.* 14.1.1.2c.

18 “Scientia nihil aliud est quam impressio vel coniunctio sciti ad scientem” (*I Sent.* 35.1.1 ad 3).

19 See, e.g., *Quod.* 8.2.1c (quoted as 4.9 below). The role of sense judgment will be considered at greater length in this sec. 3.1.

20 “Sed haec positio inde falsa apparet, ut Boetius ibidem dicit, quia intellectus componit et dividit, et comparat suprema ad infima, et cognoscit universalialia et simplices formas, quae in corporibus non inveniuntur” (*SCG* III.84.2592). Cf. *ST* 1a 85.2 ad 3; *InJoh.* 1.1.25.

21 “Et sic manifestum est quod intellectus non est sicut recipiens tantum imagines corporum, sed habet aliquam virtutem corporibus altiore: nam sensus exterior, qui solum imagines corporum recipit, ad praedicta non se extendit” (*SCG* III.84.2592). See the discussion of these passages in Verbeke (1983), pp. 42–44.

intellect. The senses are indeed passive. The mistake of Boethius's Stoics was to give the same account for intellect and sense, thereby ignoring intellect's distinctive active capacities.<sup>22</sup>

It is precisely at this point that Olivi takes issue most strongly with Aquinas. An account like that of Boethius's Stoics goes wrong, Olivi argues, not just at the level of intellect but at the level of sense as well. Olivi's argument is not that sense is more intellect-like than Aquinas seems to allow and therefore must be allowed an active role in shaping the input of sensible species. His position is rather that no matter how small a role a cognitive faculty plays in processing data, that faculty must still direct its attention to the data. The mere impression of data alone is not sufficient for cognition; the cognitive power must also focus on those data. This, according to Olivi, is an aspect of cognition the Aristotelians ignore.

## 2. ATTENDING TO THE OBJECT (OLIVI)

As discussed in the Introduction (sec. 3.1), Olivi's often-insightful philosophical work received a mixed reception at best. A factor that must have contributed to the negative response (but no doubt also contributed to his insightfulness) was his stubborn refusal to follow traditional theological and philosophical authorities. Although medieval philosophers in general were much less inclined to a slavish respect for authority than is often assumed, Olivi is unusual for his emphasizing, at times obnoxiously, how little he cares about following traditional doctrines. Speaking specifically of Aristotle's dictum that cognition is a kind of being affected, Olivi says,

4-4 Aristotle argues for his claim without any sufficient reason – indeed with almost no reason at all. But without reason he is believed, as the god of this age.<sup>23</sup>

This is just one instance of the harsh critiques of Aristotle and other non-Christian philosophers that fill Olivi's writing (cf. i.3). Such an attitude is of course very far from that of Aquinas. It is perhaps a telling indication of the vast difference between the two men that whereas Aquinas remarked at the end of his life that "all that I have written seems like straw to me," Olivi is reported to have said on his deathbed

22 SCG III.84.2591–92.

23 "Aristoteles nulla sufficienti ratione, immo fere nulla ratione probat suum dictum, sed absque ratione creditur sibi tanquam deo huius saeculi" (*II Sent.* q. 58 ad 14; II, 482).

that all his insights had come from a divine illumination that occurred while he was studying in Paris.<sup>24</sup>

If there is any philosopher Olivi did respect it is Augustine. But even Augustine comes in for rather pointed questioning. At one point in his question commentary on Lombard's *Sentences*, for instance, Olivi argues that Augustine's definition of sensation has "the fault of contrariety and, what's more, the fault of redundancy."<sup>25</sup> There was, in fact, a great deal of disagreement among the Scholastics as to what Augustine's theory of sensation really was. William Crathorn harshly criticizes Augustine for being inconsistent on the question of sensation, charging that, in his literal commentary on Genesis, Augustine holds that the senses are active, whereas in the *De trinitate* "he says something entirely contradictory." Crathorn concludes, with a bluntness unimaginable in Aquinas's era, that "therefore those who believe that all the words of Augustine are true must possess the greatest faith, because they have to believe that contradictories are true at the same time."<sup>26</sup> Olivi also thought that Augustine was not always consistent on this topic. But he puts the charge more delicately: "Concerning the act of the particular senses, Augustine said some things in the manner of someone uncertain and wavering from one view to another."<sup>27</sup>

Although Olivi doesn't accept all (or even most) of Augustine's theory of cognition, he does put great emphasis on one part of it: the claim that cognition requires the active focus of the cognitive power on the object being cognized.<sup>28</sup> This insistence that sensation and intellection are active and not passive is the starting point for Olivi's theory of cognition and for his critique of the Aristotelian account.

According to Aquinas, all that is required for cognition is the cognitive power and the impression of the cognitive species on the cognizer: "two things are required for vision, whether sensory or intellectual:

24 For Aquinas, see Weisheipl (1974), p. 321; Torrell (1996), p. 289; for Olivi, see Partee (1960), pp. 215, 233.

25 "Ergo haec definitio habet in se vitium contrarietatis et ultra hoc vitium nugationis" (*II Sent.* q. 58 ad 14; II, 484). See Ch. 5 (5.13) for the context of this criticism. For a general discussion of the extent of Olivi's allegiance to Augustine, see Jansen (1935).

26 "Sed in 11. De trinitate dicit omnino contradictorium. Ideo oportet quod illi, qui credunt quod dicta Augustini sint vera, sint maximae fidei, quia oportet quod credant quod contradictoria sint simul vera" (*I Sent.* q. 1 concl. 1; 88-89).

27 "Augustinus circa actum particularium sensuum more dubitantis et hinc inde fluctuantis aliqua dixit" (*II Sent.* q. 74; III, 113).

28 A crucial passage from Augustine is at *I Soliloquies* ch. 6, where he says that three things are required for the soul to see: "ut oculos sanos habeat, ut aspiciat et ut videat." Olivi cites this passage at *II Sent.* q. 74 (III, 120).

namely, a visual power and the union of the thing seen with sight.”<sup>29</sup> Olivi argues with plausibility that such a formulation leaves out a crucial element, namely, the focusing of the cognitive power’s attention on the object to be cognized.

- 4.5 However much the cognitive power is informed through a habit and a species differing from the cognitive action, it cannot advance to a cognitive action unless before this it actually tends [*intendat*] toward the object, so that the attention of its intention [*suae intentionis*] should be actually turned and directed to the object.<sup>30</sup>

Olivi does not actually accept the Aristotelian species account (as we will see in Ch. 5). But even if the species theory were right, Olivi argues here, it would still be incomplete unless supplemented by an account of how our cognitive powers can focus at will on one object instead of another. This seems true and even obvious. Olivi gives the kinds of examples of this that one would expect – of someone sleeping, for instance, whose ears receive the same impressions as someone awake but who does not sense these impressions.<sup>31</sup> Even when we are awake, he adds, we sometimes don’t perceive objects right in front of us when we are intently focused on something else:

- 4.6 Nor do our senses, when not unconscious but alert, perceive their present objects when the senses’ actual intention is removed from their objects by a strong focus [*attentionem*] on other things.<sup>32</sup>

On the face of it, Aquinas’s analysis of cognition in terms of being affected does not seem to have a way of handling these sorts of cases.

As for what exactly this attention of the cognitive power involves,

29 “Ad visionem, tam sensibilem quam intellectualem, duo requiritur, scilicet virtus visiva, et unio rei visae cum visu” (*ST* 1a 12.2c). At *III Sent.* 14.1.3.2, Aquinas says that three things are required for intellectual cognition: (a) the intellect’s power, (b) the light of the agent intellect, and (c) a likeness of the object to be apprehended. There need be no inconsistency between these two passages, because (b) and (c) can be taken as prerequisites for the “union” of intellect and the object of intellect.

30 “Quantumcumque potentia cognitiva per habitum et species ab actione cognitiva differentes sit informata, non potest in actionem cognitivam exire, nisi prius intendat actualiter in obiectum, ita quod aspectus suae intentionis sit actualiter conversus et directus in illud” (*II Sent.* q. 72; *III*, 9). Cf. q. 34 (*I*, 620–21), q. 58 ad 14 (*II*, 466), q. 73 (*III*, 89), q. 74 (*III*, 123), q. 76 (*III*, 148).

31 See *II Sent.* q. 73 (*III*, 89–90); q. 58 ad 14.3 (*II*, 484), quoted at 5.12 below.

32 “[N]ec sensus nostri non consopiti sed vigilantes percipiunt sua obiecta praesentia, cum per vehementem attentionem ad alia est actualis intentio sensuum retracta a suis obiectis” (*II Sent.* q. 73; *III*, 89). Cf. *Quod.* 1.7 (f. 4ra).

Olivi is not terribly clear. (I'll have more to say on this topic in Ch. 5.) He often invokes the notion of intentionality, as in 4.5 and 4.6, to explain cognitive attention. In a different passage, he explains that by 'attention' he means "the virtual or intentional turning of the power to the object."<sup>33</sup> This is indeed to explain the obscure through the more obscure – another case in which, as in Chapter 2, the concept of intentionality as employed by later Scholastics seems vague and mysterious. Olivi also offers an analogy so that, as he puts it, the notion of attention "can be easily grasped by the unsophisticated." Just as a piece of metal can be either unformed and inactive, or else hammered and sharpened into a sword, so, too, a cognitive power is sometimes "wrapped up in itself, so that its tending force [*vis intentiva*] tends toward no object." But at other times the power will be "sharply intent on something exposed to it."<sup>34</sup> Olivi says, more concretely, that one's attention can be directed to the objects of a particular sense organ, to objects stored in memory, or to the imagination.<sup>35</sup> Further, one's attention can either be focused on a specific object, as when someone directs your eye to a particular book, or be in a state of general alertness (as opposed, say, to being asleep).<sup>36</sup>

These experiential arguments for the existence of an active component in cognition are compelling. As Olivi says, if the mere reception of a species from a sense object were sufficient for cognition, then there would be no need to direct our attention to the object. But, he says, "the contrary of this we continually experience in ourselves."<sup>37</sup> As far as the Aristotelian account goes, we have already seen Olivi assert that there are no compelling arguments in its favor (4.4). Furthermore, Olivi believes that the account simply conflates two different events. Behind the Aristotelian account, Olivi writes, is the claim that "the seeing of a color is the same as the passive coloring of sight, and hearing is the same as a

33 "Aspectum autem hic voco conversionem virtualement seu intentionalem potentiae ad obiectum" (*II Sent.* q. 59; II, 543).

34 "Circa primum autem est primo attendendum quid sit ille aspectus. . . . Ut autem hoc a rudiioribus facilius capi possit, utamur ad hoc sensibili et grosso exemplo. Sicut enim ferrum aliquando recusum est velut massa informis et versus se involuta, aliquando vero per protensionem suarum partium acuitur in modum ensis: sic potentia cognitiva aliquando stat velut recusa et in se involuta, ita quod sua vis intentiva in nullum obiectum intendit, aliquando vero sic intra se protenditur et protendendo acuitur quod est acute ad aliquod sibi obiectum intenta. Hunc autem modum existendi et se habendi vocamus eius actualement aspectum" (*II Sent.* q. 73; III, 63–64).

35 *II Sent.* q. 58 ad 14 (II, 510–11).

36 *II Sent.* q. 72 (III, 32), q. 59 (II, 543–44).

37 "Cuius contrarium in nobis continue experimur" (*II Sent.* q. 72; III, 24). Cf. q. 57 (II, 333).

passive sounding produced in the sense.”<sup>38</sup> As discussed in Chapter 3, this characterization would be unfair to (at least) Aquinas if Olivi’s complaint is that the visual powers would actually become colored. But Olivi’s central charge here does appear correct, at least on the face of things. The Aristotelian account doesn’t seem able to distinguish the seeing of color from the passive reception of (intentionally existing) colored forms. These are, Olivi believes, two different events. His point, which seems plausible enough, is that for a cognitive faculty to go from mere reception to cognition, it must *do* something – it must be active.

### 3. JUDGING AND ATTENDING (AQUINAS)

Is there any reply Aquinas can make? The problem is most obvious and serious for him at the level of sensation. Remember that he accepts the claim of Boethius’s Stoics at the sensory level and allows that sensible species are an agent of the A1 type: completely sufficient for bringing about cognition. So although an Aristotelian like Aquinas faces a general problem on this issue extending to all kinds of cognition, it makes sense to focus on the case of sensation. Does Aquinas have the resources with which to reply to Olivi’s charges?

These questions become even more pressing when we see that Aquinas recognizes the sorts of phenomena that led Olivi to emphasize the need for cognitive attention. Speaking of intellect as well as the other powers of the soul (e.g., sensation, memory), he writes,

- 4-7 We find in all powers of the soul that when one power is intent on its act, another is either weakened in its act or is entirely distracted. Thus it’s clear in the case of someone whose visual operation is very strongly intent that his hearing does not perceive things that are said, unless perhaps by their vehemence those things draw the sense of hearing to themselves. The reason for this is that attention [*intentio*] is required for the act of any cognitive power, as Augustine shows in *De trinitate*.<sup>39</sup>

This familiar phenomenon of selective attention is, according to Aquinas, something “we find *in all powers of the soul*.” Further, the attention

38 “Unde [Aristoteles] dicit quod visio coloris est idem quod passiva coloratio visus et auditio est idem quod passiva sonatio in sensu facta” (*II Sent.* q. 74; III, 110).

39 “Hoc enim in omnibus animae potentiis invenimus quod, quando una potentia in suo actu intenditur, alia vel debilitatur in suo actu vel ex toto abstrahitur, sicut patet in illo in quo operatio visus fortissime intenditur quod auditus eius non percipit ea quae dicuntur nisi forte sua vehementia ad se trahant sensum audientis; cuius ratio est quia ad actum alicuius cognoscitivae potentiae requiritur intentio, ut probat Augustinus in libro *De Trinitate*” (*QDV* 13.3c).

of which Aquinas speaks “is required for the act of *any cognitive power*.” Here, he specifically gives an example of sensory cognition, but the same evidently applies to intellect. After the discussion of section 1, and the emphasis that we saw Aquinas put on the external object as the “sufficient agent” in sensation, it is quite surprising that he should insist, in 4.7, that some further attention (*intentio*) is required for every case of cognition. The example he gives seems to show fairly decisively that the external object is not a sufficient agent for sensation. Indeed, ironically enough, Aquinas refers to the very same text – Augustine’s *De trinitate* – that Olivi quotes so often in condemning the Aristotelian model on just this point.<sup>40</sup>

Aquinas’s talk of the need for a cognitive attention is not limited to this one passage from the *De veritate*. In the *Summa contra gentiles*, for instance, he claims that “the cognitive power doesn’t actually cognize anything unless an attention [*intentio*] is present.”<sup>41</sup> In the second part of the *Summa theologiae*, he refers several times to the phenomenon described in 4.7: the way focusing on one object can make us unable to apprehend other things, even when they are right in front of us. And in the *De malo*, he gives the example of someone who is so intent on hearing something that he doesn’t perceive another person walking past him.<sup>42</sup> The basic notion of intention and intending that Aquinas means to invoke here is clear enough. The term ‘intention,’ as he himself indicates in one place, “implies in its definition a certain order of one thing to another.”<sup>43</sup> I would suggest that the attention Aquinas discusses in these passages is no different from what he refers to more often as a turning (*conversio*) of the cognitive power to the object. Aquinas regularly speaks of the need for intellect to turn itself to phantasms (i.e., sensory images) in order to cognize.<sup>44</sup> But he also claims that there is a general need for this turning toward in order for a cognition to occur:

40 See, e.g., *II Sent.* q. 74 (III, 112–13).

41 “Vis cognoscitiva non cognoscit aliquid actu nisi adsit intentio: unde et phantasmata in organo conservata interdum non actu imaginamur, quia intentio non fertur ad ea” (SCG I.55.458). Cf. *I Sent.* 3.4.5c, speaking of the cognition of God and oneself: “Ad talem enim cognitionem non sufficit praesentia rei quolibet modo; sed oportet ut sit ibi in ratione obiecti, et exigitur intentio cognoscentis.” See also *Quod.* 7.1.2 ad 1.

42 *QDM* 3.9c; *ST* 1a2ae 33.3c, 77.1c.

43 “Intentio in ratione sua ordinem quemdam unius ad alterum importat” (*II Sent.* 38.1.3c). Cf. *ST* 1a2ae 12.1c: “Intentio, sicut ipsum nomen sonat, significat in aliud tendere.”

44 See, e.g., *ST* 1a 84.7. On Aquinas’s varying terminology to describe this activity, see Hayen (1954), pp. 197–200.



- 4.8 A power can cognize something only by turning itself to its object – as sight cognizes something only by turning itself to a color. Hence . . . however much intellect may have within itself some intelligible species, still it never actually considers anything on the basis of that species except by turning itself to the phantasms.<sup>45</sup>

But although the basic notion Aquinas is advancing in these passages is clear, it's not easy to say in any detail how we should understand this selective attention, especially given his insistence in other places on the passive character of cognition.

Furthermore, the tension between these two features of Aquinas's thought seems plain. How can he say, in *Quodlibet* 8.2.1, that "things outside the soul are related to the exterior senses as a sufficient agent with which the patients do not co-operate but only receive"<sup>46</sup> and also say, in 4.8, that sight can't cognize without "turning itself" to its object? It seems on the face of things that in one passage an activity is being attributed to the senses, whereas in the other passage all activity is being denied. In many other places, Aquinas creates similar problems for himself. He says in his *Sentences* commentary, for instance, that "for a sense's complete operation, the impression of its active [object] in the manner of a passion alone suffices."<sup>47</sup> He makes an even stronger claim in the *Summa theologiae*: "a sense's being affected is its very sensing."<sup>48</sup> Here, receiving an impression from without is said not just to be the sufficient cause of sensation but to be *identical* with the act of sensation itself. If this were true, then the phenomenon of selective attention described in 4.7 would appear to be impossible.

45 "Nulla potentia potest aliquid cognoscere nisi convertendo se ad obiectum suum, sicut visus nihil cognoscit nisi convertendo <se> ad colorem; unde . . . quantumcumque aliquam speciem intelligibilem apud se intellectus habeat, numquam tamen actu aliquid considerat secundum illam speciem nisi convertendo se ad phantasma" (QDV 10.2 ad 7).

46 "Ad sensus enim exteriores se habent sicut agentia sufficientia, quibus patientia non cooperantur, sed recipiunt tantum." Cf. nn. 6–9 above. Lonergan (1967), p. 131, quotes a great many more such passages. See also Kenny (1993), who reports without qualification or argument that "a sense . . . is a passive power whose function is to undergo change through the action of an external sense-object" (p. 33).

47 "Sed quia sensus non sentit nisi ad praesentiam sensibilis, ideo ad eius operationem perfectam sufficit impressio sui activi per modum passionis tantum" (III *Sent.* 14.1.1.2c). Cf. *Quod.* 5.5.2 ad 2 (8.2) and *ST* 1a 85.2 ad 3: "Et sic perficitur operatio sensus per hoc quod immutatur a sensibili."

48 "[S]ensum affici est ipsum eius sentire" (*ST* 1a 17.2 ad 1). Cf. 4.10 below: "actio visus potest considerari vel secundum quod consistit in immutatione organi a sensibili exteriori."

In describing the phenomenon of selective attention, Aquinas notes that a noise might “by its vehemence” draw the cognizer to attend to it (4.7). (In the *De veritate*, he notes that, when we are hit with something, we can’t help but notice the wound – this by way of establishing that it would be no problem for angels to get our attention.<sup>49</sup>) Moreover, our appetites can direct our cognitive faculties (see n. 95 below). A further way in which Aquinas suggests one’s attention might be shifted is on a command of the will. It is clear that he takes the will to be able to move both intellect and the senses: “the will moves other powers of the soul to their acts, because we use the other powers when we will [to do so].”<sup>50</sup> The example he gives to illustrate this claim involves the senses. (I’ll return to this important passage at 4.13.) This is a point Aquinas makes more often in the case of intellect: he explains, for instance, that it is on a command of will that we go from the mere capacity for thinking of something (i.e., having a *habitus*) to the actual thought of that thing.<sup>51</sup> But the same clearly goes for the senses; one wills to attend or turn the sense powers to a particular object, and in virtue of so doing one perceives that object. In fact, Aquinas makes the general claim that “it stands within will’s power to apply or not to apply attention [*intentionem*] to something.”<sup>52</sup>

Notice, however, that identifying the will as the motive force in cognition does not help reconcile Aquinas’s remarks in this section with his remarks in section 1. For one thing, if the will *commands* the senses to attend to an object, then that attention must be an *act* of the senses. Commands are effective only if made to the agent responsible for the action. It may be that the notion of commanding is the wrong one here and that the will should be thought of as *moving* the senses into an attentive state. This would allow the senses to remain passive, moved by the external object from one side, and by the will from the other. But this would seem to have the unattractive result of giving the will a central role in sensation. Another option is to say that the will com-

49 *QDV* 11.3 ad 2.

50 “[V]oluntas movet alias potentias animae ad suos actus; utimur enim aliis potentiis cum volumus” (*ST* 1a2ae 9.1c).

51 *ST* 1a 107.1c. Cf. *ST* 1a 82.4; *SCG* III.26.2076; *QDM* 6 ad 10.

52 “Applicare autem intentionem ad aliquid vel non applicare in potestate voluntatis existit” (*QDM* 3.10c). Aquinas often says that attention (*intentio*) is an act of will; see, e.g., *ST* 1a2ae 12.1; *QDV* 22.13. But usually he seems to be discussing a different sort of intention from the one being discussed in such cognitive contexts as 4.7. Cognitive attention is, it would seem, an act of a cognitive power, brought about (at least in some cases) by an act of will. On Aquinas’s various uses of the term ‘*intentio*,’ see Robert Schmidt’s careful treatment in Schmidt (1966), pp. 94–102.

mands or moves some other cognitive faculty, and that this other faculty carries out the active part of sensation. (I don't know what faculty this would be; the candidates for this role seem to be intellect and the various internal senses.) Even if we take one of these lines, in order to safeguard the passivity of the senses, the percipient taken as a whole would still not be passive; sensation would require the combination of an external impression and an internal act of will or another faculty. It would remain puzzling how Aquinas can say that the external object's impression is sufficient for sensation or that sensation just is an impression from a sensible object.

What we face, therefore, is the task of finding not just a way for Aquinas to reply to Olivi but also a way for him to be internally consistent. I will make two suggestions as to how this might be done. But although the first is philosophically attractive, only the second finds strong support in Aquinas's work.

### 3.1. *Judgment and apprehension*

Aquinas's problem would be solved if we could find in his account the kind of distinction that is often made by drawing a line between sensation and perception. If such a line could be drawn and if only the former were passive, then we could hold both that *sensing* is just a way of being affected (n. 48) and that *perception*, the level at which we can truly speak of *cognition*, requires an attending to or turning toward the object (n. 41 and 4.8). There is at least some reason for thinking that such a distinction can be found in Aquinas's writing, based on his distinction between sensory judgment and apprehension. Consider again, for instance, *Quodlibet* 8.2.1, where he explicitly notes that the entirely passive nature of the senses doesn't extend up to their act of judgment:

4.9 The exterior senses receive from things only by being affected – without co-operating in any respect in their formation. Those [senses] that are already informed, however, have a proper operation, which is judgment concerning their proper objects.<sup>53</sup>

Here, two elements of sensory cognition are distinguished: the original reception, in which the senses play a passive role, and a consequent judgment, in which the senses perform an operation (i.e., they are active). Elsewhere, Aquinas gives more content to the notion of sensory

53 "Sensus autem exteriores suscipiunt tantum a rebus per modum patiendi, sine hoc quod aliquid cooperentur ad sui formationem; quamvis iam formati habeant propriam operationem, quae est iudicium de propriis obiectis" (*Quod.* 8.2.1c).

judgment. Truth and falsity apply strictly to sensation, he says, only insofar as judgment is concerned. With respect to the prior reception from without, which he calls *apprehending*, there is truth and falsity “only insofar as it is related to judgment – namely, insofar as such or such a judgment is naturally suited to follow from such an apprehending.”<sup>54</sup> Strictly speaking, the senses are true or false (right or wrong) only insofar as their *judgment* is concerned, and he indicates that this is a matter of judging either that something does exist or that it does not exist.<sup>55</sup> At the first level of sensation, that of apprehension, there is no such judgment. At this level, truth or falsity is reduced to the question of veridicality: do the senses perceive things as they are? His answer, of course, is that they do, barring extraordinary impediments.<sup>56</sup> This means that true judgments *are* naturally suited to follow from sensory apprehension, and to this extent sensory apprehension is true (in a broad sense).

The foregoing account suggests a way of resolving the appearance of contradiction in Aquinas’s claims about the passivity of sensation. Only judgment, we might try saying, requires an act of attending or turning toward on the part of the sense power. Apprehension, the purely passive reception of sensible species, needs no such active turning toward. This is precisely how William Crathorn, as well as some recent commentators, read Aquinas.<sup>57</sup> But for this interpretation to hold up, we have to maintain that apprehending occurs at a precognitive level. This is because we have to take into account the claim of 4.8 that cognition requires a turning toward. We also have to honor the experiential evidence of 4.7, the phenomenon of selective attention, which leads Aquinas to postulate an attending to the object. On the interpretation under consideration, we have to say that one *apprehends* the sounds being uttered, even when one is too distracted to *perceive* them. It is because no *judgment* follows the apprehension that one doesn’t *cognize* those sounds. They remain at a precognitive level, received but not fully

54 “Unde et in sensu proprie veritas et falsitas dicitur secundum hoc quod iudicat de sensibilibus, sed secundum hoc quod sensibile apprehendit non est ibi proprie veritas vel falsitas sed solum secundum ordinem ad iudicium, prout scilicet ex apprehensione tali natio est sequi tale vel tale iudicium” (QDV 1.11c).

55 “[E]t sic dicitur esse veritas vel falsitas in sensu sicut et in intellectu, in quantum videlicet iudicat esse quod est vel quod non est” (QDV 1.11c).

56 “Et ideo semper sensus apprehendit rem ut est, nisi sit impedimentum in organo vel in medio” (QDV 1.11c); cf. *InMet.* IV.12.673; *ST* 1a 17.2, 85.6.

57 Crathorn reaches this conclusion after quoting from *Quod.* 8.2.1 at length (*I Sent.* q. 1; 144–45). André Hayen also seems to think that this account explains the respect in which for Aquinas, cognition is passive. See Hayen (1954), pp. 127–31, 138–39.

heard. In one sense of the term, we aren't fully *conscious* of such sounds. This low-level apprehension needn't be merely physical; we could allow that in some sense these sounds do register in the senses and make a (subconscious) impression on memory. But these low-level impressions are not fully processed.

The distinction I'm considering is quite difficult to draw with any precision. One would need to explain the difference between a cognitive and a noncognitive impression and say what precisely is meant by the denial that we are "fully conscious" of this low-level apprehension. But without embarking on this difficult task, we can still ask whether Aquinas wanted to draw *some* such distinction. As evidence that he did, consider the following passage, in which he seems to invoke the notion of consciousness in the course of distinguishing apprehending from judgment:

- 4.10 The action of sight can be considered, on the one hand, inasmuch as it consists in the organ's alteration by the exterior sense object. In this way, only color is sensed, and so through this action sight does not see itself seeing. The other action of sight occurs inasmuch as, after the organ's alteration, it judges the organ's very perception from the sense object, even once the sense object has left. In this way, sight senses not only color but also the seeing of color.<sup>58</sup>

Judgment, as explained here, is what enables us to grasp that we are seeing. It provides a second-order perception of our sensations. This might suggest that we are on the right track in taking the judgment-apprehension distinction to rest on levels of consciousness. But the proposal in question runs into trouble when we look at what Aquinas says in 4.10 about the first level of sight, which seems to correspond to apprehension. As we might expect, Aquinas insists that this is entirely a passive reception. But he also says that this passive reception is nothing other than seeing colors. Surely, however, Aquinas's claim that "color is sensed" is meant to refer to ordinary cases of vision. If Aquinas has in mind some special class of sensation – for example, sensation as contrasted with perception – then he would surely tell us that. But he never does. I take it then that apprehending is nothing other than sensing and that 'sensing' refers to nothing other than our ordinary, everyday

58 "[A]ctio visus potest considerari vel secundum quod consistit in immutatione organi a sensibili exteriori, et sic non sentitur nisi color, unde ista actione visus non videt se videre; alia est actio visus secundum quod post immutationem organi iudicat de ipsa perceptione organi a sensibili etiam abeunte sensibili, et sic visus non solum colorem sentit, sed sentit etiam visionem coloris" (*InDA* III.2.89–97 [sec. 588]).

seeing, hearing, and so on. Seeing colors and hearing sounds are therefore kinds of apprehension. But this isn't the result we were after, because the proposal in question was to reserve ordinary cases of seeing and hearing for the operation of judgment. So this passage (4.10) shows that the judgment–apprehension distinction will not do the work we've tried to give it.<sup>59</sup>

We can see on reflection, too, that 4.10 does not provide any support for taking the judgment–apprehension distinction to rest on the difference between conscious and subconscious sensation. The attempt to read the passage that way rests, in fact, on the confusion of two different levels of consciousness. One sort of consciousness is brought out in Aquinas's examples of selective attention. When we are so intent on one thing that we don't even hear something said to us, there is a sense in which we aren't conscious of what was said. We might call this *perceptual consciousness*. This is what Aquinas claims is required for cognition (4.7, 4.8, n. 41), and this is the active component that, as we have seen, the subject must contribute to sensory cognition. It is another sort of consciousness that Aquinas associates with judgment in 4.10. This we might call *introspective consciousness*; it involves not just (or perhaps not at all) being intent on the object of sensation but also (or instead) having a second-order awareness of the perception itself. Judgment, it thus seems, is associated not with conscious perception of the external world but with introspective consciousness. (Notice that for Aquinas sensory judgment isn't limited to introspective consciousness. It also makes judgments about the external world, in concluding that this or that object does or does not exist (cf. n. 55). How these two different functions of judgment are related is a further question I won't address.)<sup>60</sup> Apprehension, on the other hand, can't be equated with a

59 Henry of Ghent reaches a similar conclusion, in an insightful discussion of this problem in *Quod*. II.6. After first saying that the external senses (*sensus particularis*) are for the most part passive, he adds that they "nevertheless do something." As evidence for this, he cites the need for a conversion to the object on the part of the external senses. Then he considers the objection that, in cases in which this conversion is lacking, the agent *sees* but does not *judge*. He rejects this position, on the basis of examples like Olivi's.

60 For a very helpful analysis of the distinction in Aquinas between judgment and apprehension, see Benoit Garceau (1968). His focus is on intellectual judgment, but see pp. 241–51 for sensory judgment. As Garceau notes, sensory judgment takes place in both the external senses and the common sense (cf. *ST* 1a 78.4 ad 2).

There is a further question about whether sensory introspective consciousness (one aspect of sensory judgment, evidently) should be attributed to the external senses or to the common sense. In 4.10, Aquinas might seem to be opting for the

precognitive, unperceived impression from without. Apprehension, despite Aquinas's frequent assertions that it is passive, requires the active attending to that is associated with perceptual consciousness. So the problem of how the senses can be both passive and intent on their object remains unresolved.

### 3.2. *Doing versus doing this or that*

So the judgment–apprehension distinction, although interesting in its own right, turns out to be a dead end for resolving the particular tension we have found in Aquinas's thought. There is, however, another way out for Aquinas. Indeed, in the *Summa theologiae* (1a2ae), he offers a straightforward way of explaining the different respects in which the process of sensation is passive and active. The solution rests on distinguishing two different ways in which a power of the soul is moved from potentiality to actuality:

- 4.11 It should be said that something needs to be moved by something inasmuch as it is in potentiality to many things. For what is potential must be made actual through something that is actual, and this is to move. There are, however, two ways in which any power of the soul is found to be in potentiality to different things: in one way, as regards doing or not doing; in the other way, as regards doing this or that.<sup>61</sup>

Here we have a general account of the circumstances under which something needs to be moved from potentiality to actuality. Aquinas's claim is that something needs to be moved to act when it is able to do a number of different things and must be determined to one particular act. As far as powers of the soul are concerned (he continues), there are two general kinds of potentiality: a potentiality either to act or not act at all (“doing or not doing”), and a potency to act in one way or another (“doing this or that”).

former – “*visus non solum colorem sentit, sed sentit etiam visionem coloris*” – but that passage occurs as part of a discussion of whether there is a common sensory power. Still, that claim is made again at *QDV* 10.9c (6.11). At other times, however, Aquinas opts for the common sense, as at *ST* 1a 78.4 ad 2. (See Hayen 1954, pp. 138–39.) He also sometimes indicates that the senses are unable to reflect on themselves and that only intellect can do this; see, e.g., *DUI* 5.205–6 [sec. 110]. (Thanks to Jeff Hause for focusing my own attention on these issues.)

- 61 “*Dicendum quod intantum aliquid indiget moveri ab aliquo, in quantum est in potentia ad plura; oportet enim ut id quod est in potentia, reducat in actum per aliquid quod est actu; et hoc est movere. Dupliciter autem aliqua vis animae invenitur esse in potentia ad diversa: uno modo, quantum ad agere vel non agere; alio modo, quantum ad agere hoc vel illud*” (*ST* 1a2ae 9.1c). Aquinas also invokes this distinction at *ST* 1a2ae 10.2c; *QDM* 6c.

## *Judging and attending*

The distinction is interesting for our purposes because Aquinas chooses sight as his example to illustrate this general claim. The passage continues:

- 4.12** Sight, for instance, sometimes actually sees and sometimes does not. And sometimes it sees white and sometimes black. Therefore, it needs a mover for two things – namely, for the exercise or use of the act and for the determination of the act. The first of these comes from the subject, which is sometimes found to be acting, sometimes not. The other comes from the object, in accordance with which the act is specified.<sup>62</sup>

In light of this passage I can refine the problem about the passivity of sensation into two separate questions, which we can call, respectively, the act question and the determination question.

The act question: Is the agent active in being moved to an act of sensation?

The determination question: Is the agent active in determining what it is that is being sensed?

Aquinas's answer to the first question is yes: he says that the mover in this case "comes from the subject." One should wonder at this point how it is that the subject moves itself to sense. Aquinas offers some guidance here. The will is the internal agent responsible for moving the subject, on the basis of what seems good to the agent:

- 4.13** The good in general, which has the character of an end, is the object of the will. And so on this basis the will moves other powers of the soul to their acts, as we use the other powers when we will [to do so]. For the ends and perfections of all the other powers are contained under the object of the will, as a certain particular good.<sup>63</sup>

So, for example, the will determines that it would be a good thing to look to your left, and you therefore do so. The will does not determine

62 "Sicut visus quandoque videt actu, et quandoque non videt; et quandoque videt album, et quandoque videt nigrum. Indiget igitur movente quantum ad duo, scilicet quantum ad exercitium vel usum actus; et quantum ad determinationem actus. Quorum primum est ex parte subiecti, quod quandoque invenitur agens, quandoque non agens; aliud autem est ex parte obiecti, secundum quod specificatur actus."

63 "Bonum autem in communi, quod habet rationem finis, est obiectum voluntatis. Et ideo ex hac parte voluntas movet alias potentias animae ad suos actus; utimur enim aliis potentiis cum volumus. Nam fines et perfectiones omnium aliarum potentiarum comprehenduntur sub obiecto voluntatis, sicut quaedam particularia bona" (continuing 4.12).



what you see (white, black, etc.), but it can move you to engage in an act of seeing. In this case, the will's command is explicitly directed to the body: turn to the left. In other cases, the will might command the sensory powers themselves: *look* at what's in front of you; *listen* to what she's saying, and so on. So the subject does play an active role in bringing about the *act* of perception.

Aquinas's answer to the determination question, on the other hand, is no. As the last sentence of 4.12 indicates, the senses are moved *by the external object* to sense a determinate thing. Of course the subject can decide to turn in one direction or another and to focus on one thing or another. But once the sense faculties are focused on a given object, the object becomes the completely sufficient agent. A sense's act "is specified" – that is, given a certain content – "in accordance with" this object, as 4.12 says. Elsewhere, Aquinas makes this point more explicitly: "There is one cognitive power that cognizes only by receiving, but not by forming something from the things received. It is in this way that a sense cognizes precisely what it receives a species of and nothing else."<sup>64</sup> Aquinas goes on to contrast the senses with imagination and intellect. The latter two form their own species. The senses, in contrast, are mere recipients. Once the senses are properly aimed and focused, the percipient takes on an entirely passive role as regards perception.

So the agent as a whole may, in one respect, play an active role in perception inasmuch as the will plays an active role in moving the sensory powers. In fulfilling this function, the will may issue various directives: open the eyes, aim the eyes there, focus on that, *look* at that. It is the last step that is most intangible and (hence) most interesting; this is where cognitive attention comes to the fore. Here, above all, one wonders whether the sensory power plays an active role. If we are to take Aquinas's remarks on the passivity of sensation seriously, then it seems that the answer has to be no. The senses themselves are entirely passive; their operation consists in being acted on. This is the line one must take in order to make sense of Aquinas's theory of perception. As he says, "all the powers of the sensory part are passive, and it is not possible for a single power to be active *and* passive."<sup>65</sup> Cognitive attention, then, is not an activity that is the responsibility of the senses but is a state that the senses are put into, either as a result of will's command

64 "Est enim aliqua cognoscitiva potentia quae cognoscit tantum recipiendo non autem aliquid ex receptis formando, sicut sensus simpliciter cognoscit illud cuius speciem recipit, et nihil aliud" (*QDV* 8.5c). See Ch. 8, esp. 8.1 and 8.2.

65 "[O]mnes potentiae partis sensitivae sunt passivae nec est possibile quod una potentia sit activa et passiva" (*InDA* III.3.226–28 [sec. 612]). Cf. *SCG* II.57.1334.

(4.13) or perhaps just as an automatic reaction to a loud noise (4.7) or a sharp blow (n. 49).

Notice that this account commits Aquinas to an extreme position on a question now at the center of the philosophy of perception: how much do the perceptual faculties contribute to interpreting and processing the physical impressions received by the sense organs? Aquinas's answer is 'nothing at all.' (Perhaps one reason the line of interpretation offered in sec. 3.1 is initially tempting is that it gives Aquinas a more complex and interesting position on this question.) These considerations raise the question of how he could handle cases of "seeing as," as in the case of a drawing that one sees as either a duck or a rabbit. For Aquinas, if I am correct, it cannot be the senses that interpret the drawing one way or the other: the senses *do* nothing to determine the content of a perception. This suggests that intellect must be active in such cases. If so, we might ask a further question: to what extent is intellect involved in the activities that we ordinarily classify as perception? I'll leave this as an open question for now; in Chapter 8 we will have occasion to consider it again.

A solution to the tension discussed earlier now emerges. When Aquinas says that a reception from without is sufficient for sensation (n. 47), we should understand him as claiming that if the senses are in the proper state (not damaged, for starters, but also in a state of attentiveness toward the object), then the sensation automatically follows. And when he remarks that "a sense's being affected is its very sensing" (n. 48), he should be read as emphasizing that, given all the proper antecedent conditions (a properly working faculty, at a minimum, in the proper state of attentiveness), the reception of species just is the process of sensation. The passive character of sensation can be preserved, then, by analyzing attentiveness as a precondition for perception, a state that the perceptual faculties must be put into if perception is to take place.<sup>66</sup>

Finally, I am in a position to confirm the tentative conclusion of Chapter 1, that Aquinas's account of cognitive attention cannot be used to supplement his criterion for being cognitive. In that discussion, I argue that Aquinas is committed to viewing the capacity for cognition as nothing more than the capacity for receiving intentionally existing forms. The difficulty with this account is that air and other things that are manifestly noncognitive receive forms intentionally. One way of handling this difficulty, as discussed, would be to invoke the need for

66 The last two paragraphs owe much to comments made in reaction to this material at the APA Central Division meetings in 1994, particularly comments by Thomas Loughran and Eleonore Stump.

cognitive attention. The reason air is not cognitive, one might say, is that it does not – indeed, cannot – attend to any object.

There is obviously something true about this suggestion. Air and water do lack the capacity to attend to anything, and this is one of the many important elements of cognition that they lack. But invoking this sort of capacity doesn't at all help to explain cognition. Attentiveness, on Aquinas's theory, is simply one among various preconditions for perception; it is nothing more than a way of pointing to the fact that the perceptual faculties must be in the proper state if perception is to take place. Beyond this, Aquinas has no account at all of what this cognitive attention is or why some things have it and others don't. So it would be of little interest to be told that air and water aren't cognitive because they can't pay attention to things. That is of course true but only barely more illuminating than to be told that air and water aren't cognitive because they lack a sensory soul, or lack sensory powers.<sup>67</sup> As discussed in Chapter 1, Aquinas's own account of cognition, although dubious as a strict criterion, does have the substantial merit of being genuinely explanatory.

#### 4. A MIXED ACCOUNT (SCOTUS) AND PURE PASSIVITY (OCKHAM)

Aquinas thus has an account of cognitive attention, one that leaves room for the purely passive character of sensation. The contrast with Olivi at this point is quite stark, because for Olivi cognitive attention constituted the best evidence against the Aristotelian position on sensation. But we can see an even starker contrast with Olivi in the work of William Ockham. In contrast to both Olivi and Aquinas, Ockham argues for the unqualified passivity of cognition – even at the level of intellect. Ockham's main target, however, is neither Olivi nor Aquinas but rather John Duns Scotus, whose position is worth considering in some detail. Scotus, in his *Ordinatio*, considers six different answers to the question of whether intellect is itself the cause of intellectual cognition. Such a range of options reflects the extended debate this question was receiving in the last part of the thirteenth century. Franciscans like

67 In fact, Aquinas does make this last claim in his commentary on *De anima* ii.12 (424b14–18). There Aristotle, after noting that sensible qualities make an impression on air, asks what smelling is, beyond receiving the impression of certain sorts of sensible qualities. Aristotle's remarks at that point are brief and obscure, but Aquinas does little to clarify matters. He writes that "to smell is to be affected by a body in such a way as to sense the smell. Air, then, is not affected in such a way that it senses, because it does not have a sensory power" (*InDA* II.24.190–93 [sec. 563]).

Matthew of Aquasparta and Roger Marston sought to emphasize the activity of intellect and criticized the Aristotelian emphasis on cognitive passivity.<sup>68</sup> Others, less taken with the Augustinian outlook, took the opposite line. Godfrey of Fontaines, for instance, anticipates Ockham's later arguments for the absolute passivity of intellect.<sup>69</sup> Scotus himself draws on a variety of sources: Godfrey, Henry of Ghent, Giles of Rome, and Thomas of Sutton, all of whom to some extent give the objects of cognition an active role in intellectual thought. On the other side, Scotus considers Olivi's view, according to which intellect is strictly active, not at all a passive recipient.

Scotus attempts to moderate this dispute by offering his own compromise account. Neither intellect nor intellect's object is the complete cause; rather, the two combine to form one complete cause. He offers a range of arguments to show that neither intellect nor object could alone be the complete active cause. The object couldn't be the complete cause, because effects don't exceed their causes in perfection; but the rational soul clearly is more perfect than mere physical objects or than any representation of those objects (e.g., phantasms or intelligible species).<sup>70</sup> In a marginal note, Scotus indicates that this is his favorite argument for intellect's activity; Olivi, too, had found this a persuasive line of thought.<sup>71</sup> Scotus emphasizes a second line of argument as well, that intellect must be active because of our ability to think when we want to, and to give a greater and lesser attention to objects.<sup>72</sup> This, of course, was also a consideration that motivated Olivi. But here Scotus doesn't consider a move that we will see Ockham make: to attribute this selective attention to the power of will.

Although the object is not a complete cause, according to Scotus, neither is intellect. One reason is that, if the object did not play a causal role, then the act of intellect would not be a likeness of it.<sup>73</sup> Hence the object's activity is required to maintain what was, as we saw in Chapter 3, one of the key principles of Scholastic accounts of cognition. To show that intellect is not the complete cause of cognition, Scotus needs to

68 For some discussion of this, see Gilson (1934), pp. 323–25; Rohmer (1928), pp. 162–71.

69 See, e.g., his *Quodlibet* IX.19, as well as the passages cited in Scotus's *Ordinatio* I.3.3.2 nn. 422–49, 512–27.

70 *Ord.* I.3.3.2 nn. 429, 488 (III, 261, 289, 291 note b). See also *Quod.* 15.27 (Vivès XXVI, 140). The *Quodlibetal Questions* have been translated into English by Felix Alluntis and Allan Wolter.

71 See, e.g., *II Sent.* q. 58 (II, 411), q. 72 (III, 18–22).

72 *Ord.* I.3.3.2 n. 486 (III, 289); *Quod.* 15.28 (Vivès XXVI, 140).

73 *Ord.* I.3.3.2 n. 490 (III, 290); *Quod.* 15.30 (Vivès XXVI, 141).

refute Olivi's account, and in this connection he makes some interesting remarks. He points out that Olivi can hardly hold that the object plays absolutely no role in intellectual cognition. If intellect were completely sufficient for its action, then it would always be able to engage in any sort of cognition. This of course isn't possible; Scotus says, reasonably enough, that anyone taking Olivi's view will have to give some sort of role to the object, either "as a cause sine qua non or as a terminus or as an exciting cause." As we will see in Chapter 5 (sec. 2), this is precisely the move Olivi did make. But to do this, Scotus says, is tantamount to postulating some new, fifth kind of cause.<sup>74</sup> Olivi needs to hold at the same time both that intellect in itself is causally self-sufficient and that the object plays some sort of role. In trying to avoid this contradiction, Olivi is driven to making up new causal relationships. (Scotus's discussion of Olivi is unusual inasmuch as it is obviously directed against his fellow Franciscan – despite the prohibition against reading Olivi. (See the Introduction, sec. 3.1.) As usual, no names are mentioned, but it is clear that Scotus knows Olivi's work: he takes arguments directly from Olivi's *Sentences* commentary (Bk. II q. 58).)

Scotus's view is that intellect and object – more precisely, intellect and an intelligible species of the object – combine in acts of intellectual cognition. Neither is sufficient alone, but jointly they are sufficient. For Scotus, the principal puzzle now becomes to determine how the two causally interact. He distinguishes three different relationships between two causes that concur in the same effect:

4.14 [1] Some things concur equally, like two people pulling the same object. [2] Some do not concur equally but have an essential order, and this in two ways: [2a] On the one hand, so that the superior moves the inferior, so that the inferior acts only when moved by the superior. . . . [2b] Sometimes, however, the superior does not move the inferior, nor does it give to it the power by which it moves, but the superior of itself has a more complete power for acting, and the inferior has a less complete power for acting.<sup>75</sup>

74 "Si enim ponatur obiectum necessarium in ratione causae 'sine qua non', vel in ratione termini vel in ratione excitantis, – si non detur sibi aliqua 'per se causalitas' (cum anima semper sit in se perfecta et passo approximata), nec aliquod impedimentum de novo, remotum, – quomodo salvabitur quod ipsum necessario requiritur, nisi ponendo quinque genera causarum?" (*Ord.* 1.3.3.2 n. 415; III, 252). Cf. nn. 414, 416.

75 "Qualiter autem hoc sit intelligendum, distingo de pluribus causis concurrentibus ad eundem effectum. Quaedam enim ex aequo concurrunt, sicut duo trahentes aliquod idem corpus. Quaedam non ex aequo, sed habentes ordinem essentialem, et hoc dupliciter: vel sic quod superior moveat inferiorem, ita quod inferior non agit

Scotus rules out option one, that intellect and intelligible species might be related like two people pulling a boat. One reason this can't be right is that it implies that if either intellect or the species were a complete cause – fully capable of exercising the kind of causality it exercises – then that agent could bring about cognition by itself.<sup>76</sup> (Analogously, if either of the people pulling the boat were strong enough, then that one person could do the job alone.) This isn't the case for intellectual cognition, for the reasons discussed above.

Scotus concludes that intellect and the intelligible species must be essentially ordered. This means that they can't be equal partners but have to be in some kind of ordered relationship, in which one is superior and the other inferior. He distinguishes (in 4.14) between two kinds of essential ordering of causes (2a and 2b). The example of the first is a hand, a stick, and a ball: here the hand and the stick cooperate to hit the ball, while the hand gives the stick its causal efficacy. As an example of the second, he offers the way the mother and father combine in generating a child. The father, he supposes, is the more complete cause, but the mother's causal efficacy doesn't come from the father.<sup>77</sup> Intellect and intelligible species are related in this second way. Each has its causal efficacy inherently, not from the other, but they still need each other to produce cognition. More exactly, Scotus says, the intelligible species is like an instrument of intellect, something intellect uses for its action. Intellect is thus the principal agent in this causal ordering.<sup>78</sup>

In this highly abstract way, Scotus proposes to solve the dispute over intellect's activity and passivity. As is characteristic of his thinking about cognition, Scotus's focus is on general physical or metaphysical principles and not on the sort of psychological data that were of greater interest to Aquinas, Ockham, and especially Olivi. Scotus uses such data – for instance, the phenomenon of selective attention – when he finds it useful. But he conceives the central issue as being how to give intellectual cognition a precise location in a general causal framework;

nisi quia mota ex superiore . . . ; quandoque autem superior non movet inferiorem, nec dat ei virtutem qua movet, sed superior de se habet virtutem perfectiorem agendi, et inferior habet virtutem imperfectiorem agendi" (*Ord.* I.3.3.2 nn. 495–6). Cf. *Quod.* 15.33 (*Vivès* XXVI, 142).

<sup>76</sup> *Ord.* I.3.3.2 n. 497; *Quod.* 15.34 (*Vivès* XXVI, 142–43).

<sup>77</sup> *Ord.* I.3.3.2 n. 496; *Quod.* 15.33 (*Vivès* XXVI, 142–43). Scotus discusses essential ordering further in *De primo principio* chs. 1–2, but there he focuses on the essential ordering of causes to effects not of one cause to another.

<sup>78</sup> *Ord.* I.3.3.3 nn. 559–62.

for this reason, he has little patience with Olivi's rather ill-defined speculation about cognitive attention and terminative causes.

Scotus sought some sort of compromise position in an area where others clung to more extreme views, their assumption apparently being that intellect must be either the sole active cause of cognition or an entirely passive cause. The former view, as we've seen, belonged to Olivi. One of the most prominent defenders of the other extreme was Ockham. In one of three disputed questions given at roughly the time he was composing his *Reportationes* on Books II–IV of Lombard's *Sentences*, Ockham argues that if one puts aside all religious and philosophical authority, then "one need not, on the basis of any argument that concludes with necessity, postulate that the intellect is active, but merely passive."<sup>79</sup> In the course of this disputed question, Ockham runs through twenty-one arguments given by others in favor of intellect's being active. Although the question does not contain the usual author's reply (Ockham confines himself to rebutting the arguments for the other side), his position emerges gradually through these twenty-one rejoinders. And even though his focus is entirely on intellect, he clearly would say much the same about the senses. His position, then, advocates the complete passivity of cognition.

Intellect, he holds, is a cause of cognition only in the sense that it is a *material* cause, which is just to say that an intellection is received in it.<sup>80</sup> (A material cause, notice, may be incorporeal. Ockham is not a materialist about the mind.) The efficient cause of intellectual cognition is the object cognized.

4.15 I grant that knowledge is engendered by cognizer and cognized, but in different ways. For it is engendered by the cognizer as by the particular receiving matter, and by the thing cognized as by the efficient cause. And so each is a cause, because one is an efficient cause, the other material.<sup>81</sup>

79 "Circa activitatem et passibilitatem intellectus, sciendum quod circumscripta omni auctoritate Sanctorum et Philosophorum, propter nullam rationem necessario, concludentem oportet ponere intellectum activum, sed solum passivum" (*QV* 5; *OTh* VIII, 155). Ockham's three disputed questions are edited as *Quaestiones Varias* 3–5. For their dating, see the introduction to *OTh* VIII.

80 "Et ideo dico quod intellectus noster est causa intellectionis etsi non causetur ab intellectu [effective], quia est causa materialis quatenus intellectio illa recipitur in eo" (*QV* 5 ad 4; *OTh* VIII, 165–66). (The addition to the text is made by the editors.)

81 "Ad aliud concedo quod a cognoscente et cognito paritur notitia, sed diversimode, quia a cognoscente sicut a materia propria recipienti et a cognito sicut a causa efficiente. Et ideo utrumque est causa, quia unum efficiens et aliud materiale" (*ibid.*, ad 6; *OTh* VIII, 167).

### *A mixed account and pure passivity*

The account, so far, is one of utter passivity on the part of intellect. Intellect is no more active than a stone heated by the sun. Like the stone, intellect is just a recipient of external impressions. If this account seems questionable in the case of the senses, it seems outrageous in the case of intellect. Whatever we may say about sensible qualities and objects, intellectual concepts are just not out in the world, pressing in on us. We have to work at getting our concepts, through abstraction, inference, imagination, and so on.

Ockham wants to deny this, at least if one means by this that any part of intellect works at developing concepts and thoughts. To this end, he considers at length the (by now) familiar phenomenon of selective attention. In general, he notes, we aren't always thinking, and we certainly aren't always thinking about the same thing. Moreover, we have the ability to turn our thoughts from one object to another.<sup>82</sup> He recognizes, too, that there are degrees of attentiveness in thinking about things and that one can focus more or less intently on an object. He considers the following objection (cast in the very language that Olivi used):

- 4.16 The act of both intellect and sense is intensified or diminished according to a greater or lesser attention and effort of the power. This greater or lesser attention and effort, and the intensification and diminution of the act, can never be preserved without the activity of intellect.<sup>83</sup>

Clearly it cannot be the thing cognized that is the cause of this ability. Nor can it be intellect, Ockham claims in responding to the argument, because if the intellect were an agent it would be a natural one, meaning that its action would always take place when the appropriate conditions were present.<sup>84</sup> So there has to be some outside explanation of how we can stop and start to think about a given thing, and think about it more or less intently.

82 See *ibid.*, ad 7 (*OTh* VIII, 167), ad 21 (190). Ockham also discusses cognitive attention at *Quod*. I.14 (*OTh* IX,81).

83 "Tam actus intellectus quam sensus intenditur vel remittitur secundum maiorem attentionem et conatum potentiae vel minorem. Ista attentio maior vel minor, et conatus, et intensio actus et remissio numquam possunt salvari sine activitate intellectus" (*QV* 5 obj.17; *OTh* VIII, 160). Cf. Scotus, *Ord.* I.3.3.2, n. 467; *Quod*. 15.28 (*Vivès* XXVI, 140).

84 "Sed huius causa non potest esse activitas intellectus quia si agat, naturaliter agit, et ita semper aequaliter quantum est ex se" (*QV* 5 ad 7; *OTh* VIII, 168). "[A]gens naturale habens passum sibi approximatum et non impeditum necessario agit" (*ibid.*). See also ad 8, ad 11, ad 14, ad 15, ad 17, ad 18, ad 20, ad 21.



Ockham's solution is to invoke the will: "the attention, the greater or lesser effort, the actual intensification or diminution, are solely from an act of will, effectively or privatively."<sup>85</sup> That is, whether the act in question is a focusing of attention on a particular object or a shifting of attention away from an object, it is the will that is solely responsible for that occurrence. Intellect remains passive. It's important to distinguish two claims that Ockham makes in this regard. The first and weaker claim is that an act of will is a cause *sine qua non* for the phenomenon of selective attention. This is a fairly plausible claim, at least for the range of cases in which we *choose* to focus on one particular thought or object. Sometimes it is just this weaker claim that Ockham makes: "For such an intense degree, effort, or attention can in no way be caused without an act of will, whether the powers of those actions are taken to be active or passive."<sup>86</sup> But he also clearly wants to make a stronger claim, as in the passage quoted at the beginning of this paragraph: will is not just *a* requisite efficient cause of the intensity of a cognition, but it is the sole efficient cause. In cases like this, then, the will and the external object will be "immediate partial causes," leaving intellect to be the passive, material cause. He explicitly says that this holds for both sensation and intellection.<sup>87</sup>

What this stronger claim of passivity seems to entail, in the case of intellect, is a negative answer to both the act and the determination question (described in sec. 3.2). Intellect passively receives impressions. Aside from being a passive recipient, which Ockham calls being a material cause (4.15), intellect makes no contribution to either the actual occurrence of thinking or the content of those thoughts. In both respects intellect lies passive, like a stone heated by the sun.

We might expect Ockham to run into trouble in the case of our acquisition of universal concepts. Even here, however, he argues for intellect's passivity. Such concepts are caused naturally, he says, without any activity on the part of intellect. First we apprehend some particular, and from this another act naturally follows, which produces the universal concept.

85 "Ideo dico quod attentio, conatus maior vel minor, intensio vel remissio in actu sunt effective solum ab actu voluntatis, vel privative" (ibid., ad 17; *OTh VIII*, 180).

86 "Quia talis gradus intensus vel conatus vel attentio nullo modo potest causari sine actu voluntatis, sive ponantur potentiae illarum actionum activae sive passivae" (ibid., 182).

87 "Ita quod obiectum, sensus vel intellectus, et volitio ista sunt causae partiales immediate respectu actus intensioris in intellectu sive sensu" (ibid., 181).

*A mixed account and pure passivity*

- 4.17 For example: Someone intuitively seeing whiteness or two whitenesses abstracts from them whiteness in common – that is, the species [of whiteness]. This is nothing other than for those two incomplex apprehensions directed to whiteness as singular . . . to cause naturally (just as fire causes heat) one third distinct apprehension . . . without any activeness on the part of intellect or will. For such things are wholly naturally caused.<sup>88</sup>

Concept formation is an automatic process. We see singular instances, and from that an idea of the common nature is automatically produced, “just as fire causes heat.” But the agent of such cognition will be the external object. Presumably, if there is no external object and the subject is relying, for instance, on memory, then it will be the memory impressions – as distinct from intellect – that bring about the formation in intellect of a general concept. In any case, intellect plays no role other than as a receptacle for such concepts.

Again, it’s worth distinguishing a weaker and a stronger claim that Ockham wants to make. The stronger claim is that intellect is not in any way active: it is a purely material cause, as passive as a stone when heated by the sun. The weaker claim is that intellect, if it acts, acts naturally (see n. 84). What Ockham seems to mean by this is that intellect, if it acts, is *determined* to act in certain ways. So, in 4.17, when Ockham says that the abstraction of whiteness in common is “wholly naturally caused,” he means several things. On the one hand, he wants to insist that the efficient, active cause of abstraction is the external object. But he also seems to have in mind a weaker claim: if intellect is active, its action is naturally determined. This seems to be his fallback position if the stronger claim proves untenable. We might express the weaker claim by saying that intellect is hardwired to search for the common natures behind sensory appearances. Unlike the will, which is able to choose from among alternatives, intellect is fixed on performing this one kind of action (if, indeed, it is an action at all). Hence Ockham emphasizes that abstraction is brought about *naturally* (4.17): this helps him make his weaker point as well as his stronger one.

After he replies to the arguments in favor of an active role for intellect

- 88 “Exemplum: aliquis videns albedinem intuitive, vel duas albenines, abstrahit ab eis albedinem in communi ut est species. Quod non est aliud nisi quod illae duae notitiae incomplexae terminatae ad albedinem in singulari, sive intuitive sive abstractivae, causant naturaliter – sicut ignis calorem – unam tertiam notitiam distinctam ab illis quae producit talem albedinem in esse obiectivo qualis fuit prius visa in esse subiectivo sine omni activitate intellectus vel voluntatis quia talia mere naturaliter causantur” (ibid., ad 12; *OTh VIII*, 175).

in cognition, he contends that his principle of parsimony should take over, for “a plurality shouldn’t be posited without necessity.” But “while taking the cognitive powers to be *purely passive*, all the aforesaid [phenomena] can be preserved through an act of will along with an object or disposition.” Thus, there is no necessity in this case, and so the cognitive powers shouldn’t be taken to be active.<sup>89</sup> One might wonder why the principle of parsimony should favor postulating *passive* over *active* powers. But the deeper question here is whether Ockham really has shown that he can save the phenomena while taking intellect to be “purely passive.” There are several reasons for doubting this.

First, there is the consideration noted earlier, that the will could not command a faculty to turn from one thought to another or to take up one thought more intently unless that faculty plays some active role. Ockham insists that the conclusion he wants is that intellect is *purely passive* (nn. 79, 89). But if so, then there is no room for will to issue any commands to intellect. One cannot make commands to something that does nothing. And it is hard to see to what else the will could issue a command so as to bring about intellectual cognition. In the case of sensory cognition, the will can command the eyelids to open or the body to turn in one direction or another. But in the case of intellectual cognition, there doesn’t seem to be anything else for the will to command. One way in which Ockham might try to avoid this difficulty is to deny that will’s action involves issuing a command.<sup>90</sup> Instead, he might say that will acts by *altering* intellect in some way. This would be compatible with taking intellect to be purely passive. At one time, we might imagine, intellect is in a certain state, and so sensory impressions of such and such a nature lead to intellectual cognitions of such and such a kind. At a later time, on the will’s influence, intellect is in another state, and so sensory impressions of such and such a nature lead to cognitions of a different kind. This sort of account raises questions about the changeability of intellect, as well as about the function of will, which is standardly conceived as giving commands and directing action. But it looks as if something like it would have to be the case for Ockham’s view to come out right.

89 “Patet etiam quod propter talia non debent potentiae praedictae poni activae, quia pluralitas non est ponenda sine necessitate. Nunc autem non apparet necessitas ponendi potentias activas propter praedicta, quia ponendo eas pure passivas possunt omnia praedicta salvari per actum voluntatis cum obiecto vel habitu, sicut patet ex praedictis” (ibid., 182).

90 See Kenny (1993), pp. 87–88 on the connection between commands and acts of will.

Olivi himself raises what has to count as a second difficulty for Ockham's view. Olivi is willing to allow that one's attention toward a particular object is caused by the will: "A particular attention to a determinate object, however, is caused by the will and its act, both in itself and in other powers, when we will or think something on purpose."<sup>91</sup> He does not, of course, take this to show that intellect is passive but only that intellect need not be the efficient cause that triggers the action. But he maintains that there must be an original attention not brought about by the will; if this were right, then the will couldn't do all the work Ockham gives to it. Olivi's argument runs as follows: acts of will with a certain object as their end have to be preceded by the intellect's apprehension of that object, and this object can't be apprehended until intellect turns its attention toward it.<sup>92</sup> Given that the causal sequence works like that, there must be some original attention that is not produced by an act of will. Otherwise, there will be an infinite regress from (i) a cognitive attention to (ii) a prior act of will to (iii) a prior act of intellect to (iv) a prior cognitive attention, and so on. Because such a regress is impossible in a finite human life, Olivi concludes that there have to be some kinds of cognitive attention that are not caused by a prior act of will; he identifies this with the universal attention that isn't directed to any particular object (see n. 36).<sup>93</sup>

The most Olivi's argument shows, however, is that will cannot *always* be the efficient cause of intellect's focus on an object. It would remain open for Ockham to reply by saying that something else is the efficient cause of attention at the beginning of the causal chain. We can, in fact, borrow a suggestion from Aquinas at this point. In his *De veritate*, discussing how will moves intellect, Aquinas considers the objection that if will moves intellect to all of its acts, then there will be an infinite regress similar to the one set out above but with one fewer step: acts of will require prior acts of intellect so as to provide the objects of volition.

91 "Aspectus autem particularis ad determinatum obiectum a voluntate et eius actu causatur tam in se quam in aliis potentiis, quando aliquid ex proposito volumus vel cogitamus" (*II Sent.* q. 59; II, 544).

92 "[C]um voluntas nec se nec intellectum possit ad aliquod obiectum convertere nisi per actum volendi, velle autem non possit, nisi prius intelligat id quod vult, intellectus autem nihil possit intelligere, nisi prius ad id quod intelligit virtualiter sit conversus . . . : patet quod oportet quod semper praecedat aspectus aliquis omnem actum mentis qui, etsi per voluntatem posset auferri, per eam non posset modo aliquo restaurari" (*ibid.*).

93 Scotus seems to be making this same argument in *Quod.* 15.7 (*Vivès XXVI*, 119–20) but in a very elliptical fashion, when he denies that will is the sole active cause of cognition. The threat of a regress, incidentally, is only implicit in Olivi's argument.

But intellect is in turn moved by the will, so a regress threatens.<sup>94</sup> Aquinas's reply is that the causal sequence won't go on forever "but will be stopped at the natural appetite by which intellect is inclined to its act."<sup>95</sup> Human beings, in other words, have a natural inclination that gets intellect up and running before will gets involved in the process.

To imagine how this might happen, you needn't think of anything as remote as your first thought as an infant; your first thoughts upon waking will serve just as well. These thoughts, we can imagine, need not be the result of will's influence but may be the product of a natural appetite. It may take some time (for some of us) before the direction of our thoughts in the morning is brought under the control of our rational desires. Up to a point, Ockham can borrow this idea from Aquinas in order to rebut Olivi's objection. But, as we've seen, Aquinas, in making this point, does not want to hold that intellect is purely passive. As the above passage (n. 95) says, "intellect is inclined [by a natural appetite] to *its act*." Its act, in this case, includes both the determination of content (abstracting, compounding and dividing, etc.) and the production of the act itself. Aquinas, as we've seen, answers yes to both the act and the determination question, when applied to intellect. For Ockham to incorporate Aquinas's suggestion into his own account, he would have to claim not that natural appetite inclines intellect to its act but that natural appetite produces some alteration in intellect, so that intellect is affected differently. This is a price that Ockham has to pay in order to hold that intellect is passive.

This disputed question ends on a peculiar note. After claiming to have responded to all the arguments that try to demonstrate the activity of intellect, Ockham says, "nevertheless, because of religious and philosophical authority, which cannot be preserved without intellect's activity, I hold the opposite view [i.e., that intellect is active]."<sup>96</sup> The example of this authority that he goes on to cite is Aristotle's defense of an agent intellect in the *De anima*. (Earlier in the question, he had also considered a passage from Augustine.)<sup>97</sup> But Ockham concludes the disputed question by saying that although the arguments made in favor

94 *QDV* 22.12 obj. 2. Cf. *ST* 1a 82.4 obj. 3.

95 "Ad secundum dicendum quod non est procedere in infinitum; statur enim in appetitu naturali quo inclinatur intellectus in suum actum" (*QDV* 22.12 ad 2).

96 "Per praedicta potest haberi occasio respondendi ad omnia argumenta quae probant activitatem intellectus. Tamen teneo oppositum propter auctoritates Sanctorum et philosophorum quae non possunt salvari sine activitate intellectus" (*QV* 5; *OTh* VIII, 191).

97 *Ibid.*, obj. 6 (*OTh* VIII, 157).

of an agent intellect are compelling to some degree, they do not hold of necessity.<sup>98</sup> There are other places where Ockham defends a view provisionally, without calling it his own.<sup>99</sup> But this is a particularly blatant case of making an argument at length and then refusing to stand by it. Ironically, then, this most un-Olivian of disputed questions ends on a note reminiscent of Olivi's own tactics. We've seen, for instance, how Olivi argues against sensible and intelligible species without calling the view his own (i.6). Elsewhere, he argues against the theory of divine illumination, only to conclude that he holds the theory anyway, on the basis of authority.<sup>100</sup> Ockham, at the point at which his theory of cognition differs most radically from Olivi's, takes this same sort of evasive action.

A further irony in Ockham's account is that although, like Olivi, he sees a tight connection between free will and the passivity of cognition, he thinks the connection is almost precisely the inverse of what Olivi had thought. It is one of the more curious aspects of Olivi's argument that he perceives a close link between taking the cognitive powers to be passive and taking the will to be passive (hence, not free). He says that it is the doctrine of the passivity of cognition that "above all things moved many to believe that our will is totally passive."<sup>101</sup> It is apparently this that motivates Olivi to argue at such length in his *Sentences* commentary against the passivity of cognition. Olivi's point begins to emerge, however, only if the Aristotelian position is maintained to an extreme. He claims at one point that if the cognitive powers were merely the passive recipients of information from sense objects and were unable to turn away and perceive and think other things, then that would denigrate both our will and our intellect.<sup>102</sup> But of course no one could seriously defend such an extreme position. Even Ockham recognizes that one can literally turn away from things one doesn't want to see; obviously, too, one does have some control over one's thoughts. So it seems implausible to think that any formulation of the Aristotelian position would be a legitimate threat to free will.

98 "[S]unt rationes probabiles, licet non concludant necessario" (ibid.).

99 In *Ord.* 2.8, for instance, he refuses to endorse as his own either the *fictum* account or the act account of concepts. See Ch. 8.

100 See Peter John Olivi (1922–26), vol. III, pp. 500–517, and the brief discussion in Pasnau (1994), pp. 200–205.

101 "[I]llud quod meo iudicio super omnia movit multos ad credendum quod voluntas nostra sit totaliter passiva fuit et est hoc quod pro firmo tenent omnes alias potentias esse passivas" (*II Sent.* q. 58 ad 14; II, 461).

102 *II Sent.* q. 58 ad 14 (II, 477).

*Passivity and attention*

Ockham, for his part, agrees that the issues of free will and the activity of cognition are connected. But he takes the connection to run in a totally different manner:

- 4.18 And so it is, in the case of many arguments that prove the activity of intellect, that they more prove the activity of will than intellect, since many such [phenomena] cannot be preserved without an act of will.<sup>103</sup>

Ockham agrees that arguments for an active intellect are a means of defending an active will. But he takes such arguments to have conflated the two things (an active intellect and an active will) and to be erroneously directed at intellect when what they really show is that will must be active. Ockham thus denies that the passivity of intellect entails the passivity of the will. On the contrary, for him, recognizing the passivity of intellect helps one see that the will must be *active*. The defender of free will, if Ockham is right, should embrace this theory of intellectual passivity.

<sup>103</sup> “Et ita est in multis argumentis quae probant activitatem intellectus, quod plus probant activitatem voluntatis quam intellectus, quia multa talia sine actu voluntatis non possunt salvari” (QV 5 ad 21; OTh VIII, 190–91).

*Part II*

**Representations and realism**





## Chapter 5

### Are species superfluous?

IN Part I, we considered how species of the intelligible and sensible sort, as well as species *in medio*, play a central role in Scholastic theories of cognition. For the Scholastics, questions about the general nature of cognition focus on the mode in which these species exist: intentionally? spiritually? immaterially? Similarly, questions about mental representation become questions about the way in which species are likenesses of the external world. And questions about the extent to which cognition is passive are reduced to the problem of whether cognition is merely the reception of species. But as central as species are to Scholastic thought, in the later medieval period it was an open question whether there even were such things. Beginning with Peter John Olivi, philosophers came to question the familiar Aristotelian assumption that such species were needed as cognitive representations of the external world. For Olivi, and later on for Ockham, there seemed no need to posit both a species and an act of cognition. The act alone, they believed, is all that needs to be postulated. In this and following chapters, I consider some of the motivations for this new act theory and also evaluate the respects in which Olivi and Ockham are proposing a genuine alternative to the prevailing Aristotelian theory.

One of the principal motivations for the theory of species, Olivi and Ockham both claim, is the need to give an account of the causal link from external object to cognizer. This, according to Olivi, “was one of the primary reasons why many ancients supposed that extrinsic things are cognized through species generated by the object and sent in through the cognitive power.”<sup>1</sup> And Ockham claims that “if species were posited for the sake of representation, this is only because one

1 “Unde et haec fuit una de causis praecipuis propter quam [multi ab antiquo] posuerunt res extrinsecas cognosci per species ab objecto genitas et immixtas per potentiam cognitivam” (*II Sent.* q. 73; III, 55).

distant object cannot act on another.”<sup>2</sup> To rebut the species account, Olivi and Ockham had to develop an alternative theory of the way the cognitive faculties apprehend distant external objects. Their alternatives, although very different from one another, can both be considered direct-realist proposals. Both deny any need for species’ intervening in the cognitive process, either in the medium or within the cognizer. In this chapter, I consider what their counterproposals are and how they account for the phenomena that led Aquinas and others to the species theory. Because Ockham’s proposal is the more straightforward, I begin with it.

### 1. DIRECT REALISM VIA ACTION AT A DISTANCE (OCKHAM)

Ockham’s alternative to species relies on action at a distance. It need not be the case, he says, that “a mover and what it moves are in contact”; on the contrary, “something can act at a great distance, with nothing acting in between [*in medio*].”<sup>3</sup> His account of the causal process leading to the apprehension of a present object is consequently quite simple. All that is required is the presence of an object at a suitable distance from the cognizer.

- 5.1 It is not true that an object can be present to intellect only through species and inferior powers. For the object itself is sufficiently present if it is near in the right way. Nor is distance an obstacle, as long as the distance does not exceed the causal force of the power and the object.<sup>4</sup>

In this passage, Ockham is referring to intellect, but he extends his account generally to all cases of what he calls intuitive cognition, that is,

- 2 “Si [species] ponatur propter representationem, hoc non est nisi quia distans non potest agere in distans” (*Rep.* II.12–13; *OTh* V, 274).  
Cf. *Rep.* III.2 (*OTh* VI, 59): “Sed si esset aliqua ratio ad hoc, videtur esse haec, quod movens et motum sunt simul secundum contactum.”
- 3 “[A]liquid potest agere in extremum distans, nihil agendo in medio” (*Rep.* III.2; *OTh* VI, 59).
- 4 “Ad aliud dico quod concludit contra opinionem quae ponit quod obiectum non potest esse praesens intellectui nisi per speciem et potentias inferiores. Quod non est verum, quia ipsum obiectum in se debito modo approximatum est sufficienter praesens. Nec impedit distantia, dummodo non excedat virtutem causativam potentiae et obiecti” (*Rep.* II.12–13; *OTh* V, 309).

a cognition through which we know whether an object exists or not.<sup>5</sup> Visual cognition is naturally the paradigm case of intuitive cognition, but Ockham explicitly warns that it is not the only case; the other senses and intellect, too, he claims, can have intuitive cognitions.<sup>6</sup> Acts of memory and imagination are excluded from his remarks about species, as is any kind of cognition where there is no judgment being made about an object's existence. For these latter kinds of cognition (abstractive cognitions), some inner representation *is* required. But he denies that this representation should be called a species, preferring to call it a *habitus* (roughly, a disposition). By 'species,' he warns the reader, he means some representation that *precedes* an act of intuitive cognition.<sup>7</sup> On this terminology, then, Ockham denies the existence of all species. Nevertheless, he is not concerned with rejecting mental representations that are the products of our cognitions and form the basis of imagination and memory.

Ockham's view is that the efficient cause of an intuitive cognition is not some intermediary species but the external object itself. Aquinas had called the external object the "sufficient agent" of sensory cognition.<sup>8</sup> But it is the species representing the object that for Aquinas is the direct, immediate cause of cognition. Thus, he calls the species the source (*principium*) of cognition, the medium of cognition, and that by which (*quo*) cognition takes place.<sup>9</sup> For Ockham, in contrast, the thing

5 "Intuitiva est illa mediante qua cognoscitur res esse quando est, et non esse quando non est" (*Rep.* II.12–13; *OTh* V, 256).

The *locus classicus* for Ockham's distinction between intuitive and abstractive cognition is *Ord.* prol. 1.1 (*OTh* I, 16–47), partially translated in William Ockham (1957). For further discussion, see Adams (1987), ch. 13; Tachau (1988).

6 See, e.g., *Rep.* II.12–13 (*OTh* V, 269, 284).

7 Ockham announces the following at the outset of his attack on intelligible species: "Hic primo suppono quod species sit illud quod est praevium actui intelligendi et potest manere ante intellectiones et post, etiam re absente. Et per consequens distinguitur ab habitu, quia habitus intellectus sequitur actum intelligendi, sed species praecedit tam actum quam habitum" (*Rep.* II.12–13; *OTh* V, 253). (See Hyman and Walsh 1973, p. 670.)

Similarly, in his discussion of sensible species, Ockham's argument is limited to the rejection of a representation that is prior to the act of sensing and is, in standard cases, its cause. See *Rep.* III.3 (*OTh* VI, 98–129).

8 "[R]es quae sunt extra animam tripliciter se habent ad diversas animae potentias. Ad sensus enim exteriores se habent sicut agentia sufficientia" (*Quod.* 8.2.1c). See 4.2 and following.

9 "Omnis cognitio est secundum aliquam formam quae est in cognoscente principium cognitionis. Forma autem huiusmodi dupliciter potest considerari: . . . Secundum

itself brings about cognition – even intellective cognition – directly: “when the presence of the thing itself . . . is posited, without any other prior thing (habit or species), then intellect can intuitively cognize that thing.”<sup>10</sup> Whether this is an important epistemological difference is a question for Chapter 7. Leaving the epistemological issue to one side, there is an important difference in the ways Aquinas and Ockham conceive of the *causal* link between object and cognizer. For Aquinas, objects are cognized through an intermediary representation and likeness. For Ockham, the object itself, acting at a distance, directly produces an act of cognition, with the object as the intentional content. In contrast to Aquinas’s species account, we can call this an *act account* of cognition insofar as it eliminates any distinction between the internal act of cognition and the internal representation of the external object.

One central difficulty with Ockham’s act account is that his alternative to species *in medio* seems quite mysterious.<sup>11</sup> He argues at length (in *Rep.* III, q. 2) that “the immediate mover does not always coincide with the thing moved; rather, it can be at a distance.”<sup>12</sup> His argument for this claim rests on three examples: rays of the sun, pinhole images, and magnets. The empirical evidence from all three, Ockham asserts, shows that agents can act immediately at a distance. I won’t take the time to review Ockham’s discussion of these issues, which belongs more to the history of science than to philosophy.<sup>13</sup> The relevant question for pre-

quidem primum respectum facit cognoscentem actu cognoscere” (*QDV* 10.4c; 3.14). “Constat enim quod medium quo intelligitur lapis est species eius in anima” (*IV Sent.* 49.2.7 ad 6).

“Visus non videt nisi per hoc quod est factus in actu per speciem visibilem. Unde species visibilis non se habet ut quod videtur, sed ut quo videtur” (*QDSC* 9 ad 6).

10 “Sed posita ipsa re praesente et intellectu angelico sive nostro sine omni alio praevio, sive habitu sive specie, potest intellectus illam rem intuitive cognoscere. Igitur talis res est causa illius cognitionis. Sed non potest esse nisi causa efficiens, igitur etc.” (*Rep.* II.12–13; *OTh* V, 276). For the same conclusion with respect to sensory cognition, see *Rep.* III.3.

11 As Anneliese Maier has noted, it was easier for Ockham and other fourteenth-century Scholastics to criticize the species theory than to formulate an alternative. See Maier (1967), p. 429.

12 “[N]on semper movens immediatum est simul cum moto, sed quod potest distare” (*OTh* VI, 48). See also *ExPhys.* VII.3.4 (*Oph* V, 630–31); *Ord.* d. 37 (*OTh* IV, 563–66).

13 André Goddu (1984) gives an excellent evaluation of Ockham’s position. The interested reader should also see Maier (1967) and Tachau (1982), (1988). Crathorn paraphrases Ockham’s three arguments from experience in *I Sent.* q. 1 concl. 6 (108–9). And Crathorn criticizes Ockham on this point at q. 15 (433–36). See also Francisco Suarez’s evaluation of this debate, recently translated by Alfred Freddoso (Suarez 1994, pp. 178–221).

sent purposes is how Ockham's view about species *in medio* affects his account of cognition. It's not obvious that there should be any connection; the rejection of species in the medium between object and percipient does not entail that the percipient will no longer have *internal* species that represent the object. And if sensible and intelligible species remain, it's not clear that Ockham's account of *cognition* will be any different. So Ockham needs an argument to make the leap from rejecting species *in medio* to rejecting internal species.

All this he realizes, and the argument he gives runs as follows (continuing 5.1):

- 5.2 If a distant object can be the immediate cause of a species in sense and in intellect, . . . it can in the same way be the immediate cause of an act of sensing and intellectually cognizing without any species, nor is there more of a reason for one account than for the other.<sup>14</sup>

Ockham's point is that, if we admit that objects can act directly on the senses and intellect and can produce a sensible or intelligible species there, then we might as well go further and admit that objects can act directly on the cognizer to produce an *act* of cognition. There is no more need for species as intermediaries within the cognizer than there is *in medio*. Earlier in this same question, Ockham distinguishes five principal motivations for the species account.<sup>15</sup> In each case, the argument for species comes down to a question of causality. Ockham takes his denial of the principle that mover and moved must be spatially contiguous to allow him to deny species of all kinds and to maintain the most direct sort of cognitive realism:

- 5.3 The external sensible object immediately moves sense and intellect to an intuitive act, so that the first thing caused in intellect by an object is an intuitive act.<sup>16</sup>

Ockham is very careful, however, not to overstate the conclusion of 5.3. He has not shown that there are no internal species, only that there

14 "Quia si obiectum distans potest esse causa immediata speciei in sensu et in intellectu, – saltem in sensu, secundum eos –, eodem modo potest esse causa immediata actus sentiendi et intelligendi sine omni specie; nec est maior ratio de uno quam de alio" (*Rep.* II.12–13; *OTh* V, 309).

15 "Item, species non ponitur nisi propter assimilationem, vel propter causationem intellectionis, vel propter repraesentationem obiecti, vel propter determinationem potentiae, vel propter unionem moventis et moti. Propter ista maxime ponitur species" (*ibid.*, 272).

16 "Quia obiectum extra, sensibile, movet immediate sensum et intellectum ad actum intuitivum, ita quod primum causatum in intellectu ab obiecto est actus intuitivus" (*Rep.* III.2; *OTh* VI, 64–65).

need not be any and that there is no more reason to think that they exist than that they do not. Here, then, he is in a different position than in the case of species *in medio*. Ockham thinks he can show through empirical evidence (as noted above) that there are no species *in medio*. But such evidence isn't available in the case of internal species. Indeed, he concedes that the species theory "cannot be evidently disproved through natural reasons."<sup>17</sup> But it is more plausible (*probabilior*), Ockham says, to deny internal species, and to that end he gives a number of arguments. Although some of these are epistemological, the two he seems to attach the most weight to have nothing to do with the skeptical worries that have led others to dismiss cognitive intermediaries. The first of these latter two invokes his famous razor. If a phenomenon can be explained through fewer entities, there is no need to postulate more.<sup>18</sup> This argument depends not just on Ockham's being able to provide an alternative account of cognition but also on the assumption that the species account of cognition really does rely on more entities than Ockham's act account. I will question this latter assumption in section 4.

Ockham's second argument in support of a general rejection of species rests on what we might call an empiricist constraint on evidence:

- 5.4 We shouldn't claim that anything is necessarily required for some effect unless we are led to it by [i] a conclusive argument proceeding from things apprehended per se or by [ii] conclusive experience. But neither of these leads to positing species; therefore, etc.<sup>19</sup>

The effect in question here is cognition, and Ockham's claim is that we shouldn't claim that species are required for cognition unless we can infer this from either [i] an argument based on self-evident propositions or [ii] an intuitive cognition. The first is impossible, he says, because "it cannot be demonstratively proven that anything created is an efficient cause." This means that the only efficient cause that can be *demonstrated* is God, the ultimate efficient cause. The only way to show that species

17 "Ista opinio quantum ad primum partem non potest evidententer improbari per rationes naturales" (*Rep.* II.12–13; *OTh* V, 256).

18 "Frustra fit per plura quod potest fieri per pauciora" (*Rep.* II.12–13; *OTh* V, 268; 5.17). For other places where the razor is applied to species or mental concepts in particular, see *ibid.* (256); *Ord.* I.2.8 (*OTh* II, 269); *Ord.* I.27.2 (*OTh* IV, 205); *Rep.* III.2 (*OTh* VI, 59); *SL* I.12 (*OPh* I, 43); *ExPer.* I prooem. sec. 5 (*OPh* II, 351).

19 "Item, nihil est ponendum necessario requiri naturaliter ad aliquem effectum nisi ad illud inducat ratio certa procedens ex per se notis vel experientia certa; sed neutrum istorum inducit ad ponendum speciem; igitur etc." (*Rep.* II.12–13; *OTh* V, 268). See also *Rep.* III.2 (*OTh* VI, 59). John of Reading gives an interesting criticism of this argument; see Gál (1969) n. 263.

are such a cause is experiential: one would have to show of a species that "upon its presence the effect follows and upon its absence it does not." But Ockham claims that there is no evidence to show this; rather, the object itself seems to meet this criterion for being an efficient cause.<sup>20</sup>

As for the second possible way of arguing for species, Ockham denies that we can experience them.

- 5.5 Experience does not lead to this [positing species], because that involves an intuitive apprehension. For instance, if someone experiences that something is white he sees that whiteness exists in that thing. *But no one sees a species intuitively.*<sup>21</sup>

Notice that he doesn't argue for this last claim; he apparently thinks it obvious that no one perceives species. It is rather surprising, however, that he doesn't give more of an argument here, because it is precisely this point that foes of direct realism often take issue with. One might, on Ockham's behalf, emphasize that in 5.4 he says that the kind of experience needed is a *conclusive* one. (I'm not inclined to emphasize this point a great deal, because, in restating this argument in a later discussion, Ockham leaves off the requirement that the experience be conclusive.)<sup>22</sup> But however 'conclusive' (*certa*) is to be understood, the foe of direct realism may not concede even this point. The best-known argument to show that we do see species (or ideas or sense-data) is the argument from illusion. And one might argue that the existence of illusions and hallucinations does make it certain that we (at least in some cases, if not in all) see images of some sort – not the objects themselves. I consider in section 3 how Ockham (and also Olivi) deal with such cases. Until then, even if one grants Ockham the intelligibility of action at a distance, this part of his argument has to be considered indecisive.

20 "Nec etiam ratio procedens ex per se notis inducit ad hoc. Quia nulla ratio potest probare quod requiratur nisi quod habeat efficaciam. . . . Sed quod aliquid creatum sit causa efficiens non potest demonstrative probari sed solum per experientiam, per hoc scilicet quod ad eius praesentiam sequitur effectus et ad eius absentiam non. Nunc autem sine omni specie ad praesentiam obiecti cum intellectu sequitur actus intelligendi ita bene sicut cum illa specie, igitur etc." (*Rep.* II.12–13; *OTh* V, 269). See Adams (1987), ch. 18, for an excellent discussion of Ockham on efficient causality.

21 "Assumptum probatur: quia experientia non inducit ad hoc, quia illa includit notitiam intuitivam. Sicut si aliquis experitur aliquid esse album, videt albedinem sibi inesse; sed nullus videt speciem intuitive" (*Rep.* II.12–13; *OTh* V, 268, continuing 5-4).

22 *Rep.* III.2 (*OTh* VI, 59).



2. DIRECT REALISM VIA SPIRITUAL ATTENTION  
(OLIVI)

Olivi's criticisms of the species theory, like Ockham's, cover a particular class of cognitions, roughly, the kind that Ockham would call intuitive. Olivi accepts memory species and habits, and in general he allows (as Ockham does) that cognition based on memory and imagination may be explained by internal representations or species. Olivi does not even reject species *in medio*, and here of course he is differing from Ockham. But Olivi denies that these species are the efficient cause of cognition. He further denies that the external object or any other external thing is the efficient cause of cognition. Instead, he proposes an account based on what he calls *virtual attention*. Cognizers obtain information about the external world not by receiving physical impressions through the sense organs but by virtually extending the soul's cognitive attention to particular features of the external environment.

Properly understood, Olivi's project is far more radical than Ockham's. Although Ockham is more thoroughgoing than Olivi in his rejection of species, he at least preserves the broader Aristotelian framework according to which cognition is based on an impression from without. Olivi, in contrast, denies that such impressions play any direct role in cognition. This idiosyncratic position has led to frequent misunderstandings of his work. We have a record of Olivi responding angrily, for instance, to a contemporary who had condemned him for denying the multiplication of species *in medio*.

5.6 Sight so perceptibly verifies the multiplication of species in the case of rays of the sun and the shining out of illuminated colors that it is as if he who denies this needs punishment. And may God show mercy to those who attribute this [denial] to me, because I assert this everywhere. And in certain questions on the action of agents (which I composed too briefly and too obscurely), the multiplication of species is not only asserted but even presupposed as the subject of those questions.<sup>23</sup>

23 "Multiplicationes specierum in solis radiis et in refulgentia colorum irradiatorum visus ita sensibiliter comprobatur: quod quasi poena indiget qui hoc negat: et parcat deus illis qui hoc mihi imposuerunt: cum ego hoc ubique asseram: et in quibusdam quaestionibus quas de actione agentis nimis breviter nimisque obscure conscripsi non solum asseritur multiplicatio specierum: sed etiam presupponitur quasi subiectum quaestionum ipsarum" (*Epistola ad R.* no. 12; *Quod.* f. 64r).

The idea that anyone who would deny such an obvious fact "needs punishment" (rather than an argument) stems from the *Topics*, where Aristotle says,

Not every problem, nor every thesis, should be examined, but only one which might

The reference here is to his *Sentences* commentary, Bk. II qq. 23–31, in which he does indeed presuppose the multiplication of species. Given the peculiarities of his account, however, it's not surprising that there has been confusion on this point, even among modern scholars.<sup>24</sup> What Olivi denies is not the multiplication of species through the medium but rather that these species play the causal role in cognition attributed to them on the standard Aristotelian account.

Aquinas had said that "the entire teaching of the philosophers" supports the view that the senses and intellect receive impressions from without.<sup>25</sup> Olivi would not, as we saw in the last chapter, have been bothered much by the weight of such authority. But Olivi's idiosyncratic account departs not just from the pagan philosophers but from Augustine as well. Following an account widely accepted in his day, Augustine had defended an extromission theory of perception, according to which the sense organs send out corporeal rays to sense objects. These rays, Augustine thought, somehow enable the senses to receive information from the external world. No one, Olivi says, now holds that theory. And in this matter, he adds, there is no reason why Augustine should be followed.<sup>26</sup>

puzzle one of those who need argument, not punishment or perception. For people who are puzzled to know whether one ought to honour the gods and love one's parents or not need punishment. (i.11, 105a6; tr. by Pickard-Cambridge)

24 Tachau (1988) takes Olivi to have denied the existence of both sensible species and species *in medio*. She consequently wonders how he can deny rejecting the multiplication of species, and asks whether he is being "disingenuous" (p. 54). (Tachau does not seem to have known the full text of the *Epistola ad R.*, as quoted in 5.6.)

Curiously, Tachau denies that Olivi rejects *intelligible species*, referring to "the general and equally erroneous assumption by modern scholars" on this score (p. 51). She is also mistaken in this claim (see i.6, i.7, nn. 29, 33, 34 below), unless her point is that Olivi allows habits and memory species in intellect. But if this is her point, then she should make the same claim about Ockham, because he takes the same line on this issue. Instead, she attributes to Ockham the unqualified denial of intelligible species (pp. 130–35).

25 "In contrarium videtur esse tota philosophorum doctrina, quae sensus a sensibilibus, imaginationem a sensu, intellectum a phantasmatis accipere fatetur" (*Quod*. 8.2.1sc).

26 *II Sent.* q. 58 ad 14 (II, 482). See Lindberg (1976) for a detailed account of the extromission theory and the reasons it was ever considered plausible. Olivi argues that the theory is unworkable, in q. 73 (III, 55–61). See also his *Quod*. I.4, where Augustine is quoted as claiming that "rays shoot out of the eyes." Aquinas explicitly rejects extromission at *InDA* III.17.292–303 [sec. 864]; and *QDSC* 9 ad 12. At *IV Sent.* 44.2.1.3c (= *ST* 3a supp. 82.3c), he notes that some people believed we would sense through extromission in the next life, a view he also rejects.

*Are species superfluous?*

Although Olivi rejects the old corporeal extromission theory, he does accept what seems to be a kind of extromission: a virtual extension of the cognitive power to the object.

- 5.7 A power can be present to something either essentially or virtually. This is to say that it can be present to something either by its essence's being truly linked to that thing or by its power's attention's being efficaciously directed to it in such a way as if it were really attaining it. . . . It is in this second way that the visual power is present to a thing distant from it that is seen. . . . This presence suffices for the act of seeing.<sup>27</sup>

According to the Aristotelians, cognition is brought about by a connection of the first sort. The object seen is really present to the visual power, at least insofar as the object's form or species is present to the visual power. Olivi can deny that such a species is needed, because he thinks vision can be brought about in the second way, through the power's virtual attention to the object. It's hard to know how to understand this theory of virtual extension, because Olivi doesn't ever give us a clear account of what it amounts to. Often, he invokes the notion of intentionality, as if that were some help in explaining what is going on:

- 5.8 For a cognitive act and attention is fixed on an object and intentionally has it absorbed within itself. On this account, a cognitive act is called an apprehension of, and an apprehensive extension to, the object. Through this extension and absorption, the act is intimately conformed and configured to the object.<sup>28</sup>

One point that Olivi wants to make in passages like this one, as discussed in Chapter 4, is that cognition must involve some active attention toward the object. But his claim goes well beyond this. He also wants to attribute this attention to the cognitive power's virtual extension to the object itself. Such an extension to the object is completely sufficient for an act of cognition: "when a power and an object that does not transcend the power's capacities are present and the power is

27 "Virtus aliqua potest esse praesens alicui aut essentialiter aut virtualiter, hoc est dictu, quod potest esse praesens alicui per hoc quod sua essentia est vere iuxta istum aut per hoc quod aspectus suae virtutis ita efficaciter est directus in ipsum acsi realiter attingeret ipsum. . . . Hoc autem modo virtus visiva est praesens rei visae distantis ab ipsa. . . . Haec praesentia sufficiat ad actum videndi" (*II Sent.* q. 58 ad 4; II, 486–87).

28 "Nam actus et aspectus cognitivus figuratur in obiecto et intentionaliter habet ipsum intra se imbibitum; propter quod actus cognitivus vocatur apprehensio et apprehensiva tentio obiecti. In qua quidem tentione et imbibitione actus intime conformatur et configuratur obiecto" (*II Sent.* q. 72; III, 35). See also n. 42 below.

turned toward the object, then the apprehension of such an object can always follow"<sup>29</sup> (cf. the end of 5.7).

The crucial and striking consequence of this theory is that the object itself needn't exert any causal influence, not on the cognitive faculties nor even on the physical sense organs. The external object need only be close enough to be apprehended by the cognizer's spiritual attention. (In this life, the proper proximity will depend on the strength of the cognitive power's attention; in the next life, Olivi tells us, the apprehension of the blessed will transcend all spatial limitations.)<sup>30</sup> In the case of both sensation and intellection, the efficient agent is the cognitive power. As we saw in Chapter 4, Aquinas calls the external *object* the "sufficient agent" with respect to sensation and the "instrumental agent" with respect to intellection.<sup>31</sup> Olivi, in contrast, believes that the external object is merely a kind of final cause or, more precisely, a "terminative cause."<sup>32</sup> It is merely by being the object of the cognitive power's attention that the external object plays a role in cognition. Hence, in his *Epistola ad R.*, he admits having argued that "the soul's apprehensive powers are the total efficient cause of its acts, although objects co-operate with them – not in the manner of an efficient cause, but in the manner of an object."<sup>33</sup>

Olivi makes these claims regarding both sense and intellect, and he often doesn't bother to distinguish between the different kinds of cognition. For Olivi, in fact, there is less difference between sensory and intellectual cognition than there is for most Scholastics. One reason for this is that he takes this virtual attention to such an extreme that he is willing to allow that, theoretically, *intellect* should be able without sensory mediation to *perceive* objects in the external world directly. It should be possible, that is, for intellect to 'see' an object simply by directing its spiritual attention to that object. In his *Quodlibetal Questions* Olivi admits that we know from experience that this isn't the case: human beings in this life do need the senses to perceive exterior objects. (Thus, there is no verb to express the kind of apprehension Olivi has in mind.) As to why that is, he says simply that "we are not certain of the

29 "Praesente potentia et eius obiecto non transcendentem vires potentiae, factaque conversione potentiae super obiectum potest semper sequi apprehensio talis obiecti" (*Quod.* I.5 sc; f. 3rb).

30 *II Sent.* q. 58 ad 14 (II, 497).

31 *Quod.* 8.2.1c (see 4.2 and following).

32 *II Sent.* q. 72 (III, 36).

33 "[P]otentiae animae apprehensivae sint tota causa efficiens actuum suorum, quamvis obiecta eis cooperentur: non per modum efficientis, sed per modum obiecti" (*Epistola ad R.*, no. 12; *Quod.* f.64r).

*Are species superfluous?*

cause." And he goes on to criticize those (Aquinas would clearly be included here) who make the unargued assumption that the human intellect necessarily needs the senses to apprehend exterior objects on its own.<sup>34</sup>

But if there is to be a "virtual attention" directed outward, how does it happen? Olivi's answer is not entirely clear. The obvious answer is a literal emission of some sort of spiritual ray. Indeed, it is tempting to think that, on Olivi's account, the soul apprehends things in much the way bats do, emitting spiritual rays, like bats sending out squeaks.<sup>35</sup> One problem here is to decide what Olivi means by a *virtual* extension of the cognitive power. In English, the term 'virtual' has historically carried two sorts of meanings. On the one hand, it means effective or potent, a meaning we can trace back to the Latin root *virtus* (= power). On the other hand, 'virtual' means in effect but not actual.<sup>36</sup> This, of course, is the modern usage. (The word is now commonly used – perhaps misused – so that 'the race was a virtual tie' means nothing more than 'the race was almost a tie.')

The Latin *virtualis* occurs only in late Latin. In Aquinas, it seems generally to have the first sense.<sup>37</sup> He speaks, for instance, of virtual contact, contrasting this with physical contact. God and demons interact with human beings in the former way,<sup>38</sup> which makes it clear that virtual contact is not in any way nonactual. Aquinas also uses the adverbial form, speaking, for instance, of all being and goodness as existing virtually in God. Obviously, he doesn't mean to deny that such things actually exist in God; rather, he means that they exist there in some special way.<sup>39</sup>

Is a virtual extension, as Olivi describes it, some special (perhaps nonphysical) but perfectly real kind of extension or extromission to external objects? The problem is to decide what Olivi means 'virtual' to contrast with. Does he mean virtual as opposed to real? Or does he mean virtual as opposed to, say, physical? Often it's not clear. When he distinguishes Augustine's corporeal-ray theory from his own virtual-

34 *Quod*. I.5 (f. 3rb). Cf. Aquinas *ST* 1a 89.1.

35 The analogy was suggested to me by Sergio Sismondo.

36 The earliest date given by *The Oxford English Dictionary* for this latter usage is 1654; the former usage seems to be somewhat older: it is noted first in 1398.

37 See the entry in Deferrari and Barry (1948). The term *virtualis* is not classical, nor is it listed in Du Cange or other standard late Latin dictionaries.

38 See *ST* 1a 105.2 ad 1; *QDM* 16.10 ad 3.

39 See *ST* 1a 19.6 ad 2, 79.2c. But see *ST* 1a 77.8c, where the sensory and nutritive powers are said to remain in the separated human soul *virtually*, inasmuch as their root or principle remains. In this case, it is clear that the powers do not actually remain.

ray theory, he could mean either of the two.<sup>40</sup> But despite Aquinas's usage, the bulk of the evidence seems to show that Olivi means 'virtual' and 'virtually' to contrast with 'real.' He explicitly denies, for instance, that this virtual extension involves "any real emission of its essence."<sup>41</sup> Elsewhere, considering the claim that "our mind is where it fixes its intention," he says that "these words are metaphorical. For we are not there really or substantially, but only virtually or intentionally."<sup>42</sup> And in an epistle defending his work against censure, he characterizes the question he had addressed as follows: "Do the visual and auditory powers *virtually* attain their objects in their own locations [i] without any *real* emission and [ii] without species that radiate or resound, produced by their objects?"<sup>43</sup> These passages seem to show that Olivi uses *virtualis* to mean in effect but not actually.

What, then, is a virtual attention? Significantly, Olivi treats it not as a *sui generis* activity of the mind but as a general kind of causal relationship that can be applied to physical agents just as much as to mental ones. In considering the Aristotelian dictum that every agent is present to its immediate effect, Olivi recites two positions: first, the standard interpretation, according to which the cause must actually be contiguous with its immediate effect; second an account on which an agent need be present to its effect only virtually not substantially. Although Olivi does not in the end rule out either of these positions, he is clearly more attracted to the latter, judging from the many arguments, never refuted, which he advances on its behalf. Those advocating this latter account

5.9 have said that the power of the sun and of any agent acts at a distance through a virtual attention or through a virtual conversion and direction at a distance. Hence, as far as the efficacy of the virtual attention and

<sup>40</sup> See *II Sent.* q. 58 ad 14.8 (II, 494).

<sup>41</sup> The context is Olivi's rejection of Augustine's theory of corporeal extromission: "Superfluit emissio corporalium radiorum ad eorum speciem suscipiendam, ad videndum vero vel audiendum res ubi sunt sufficiet interna directio nostri virtualis aspectus ad ipsas res visas absque aliqua reali emissionem suae essentiae" (*II Sent.* q. 73; III, 61).

<sup>42</sup> "[A]nimus noster . . . ibi est ubi intentionem suam figit. . . . Ad decimum tertium dicendum quod verba illa metaphorica sunt. Non enim sumus ibi realiter seu substantialiter, sed solum virtualiter seu intentionaliter" (*II Sent.* q. 37 obj. 13, ad 13; I, 657, 672).

<sup>43</sup> "An virtus visiva et audita virtualiter attingant sua obiecta in locis suis absque aliqua emissionem sui reali et absque speciebus radiosum vel sonorosis, quae a suis obiectis gignuntur" (Laberge 1935, p. 405).

*Are species superfluous?*

direction is concerned, it is present to the whole medium, at a distance, extended up to the end point, beyond which it cannot act.<sup>44</sup>

On this account, Olivi explicitly says, every natural physical agent has a virtual attention of this sort that extends as far as its causal force does.<sup>45</sup> This shows that virtual attention need by no means be confined to the mind; there is nothing intrinsically *spiritual* about the phenomenon of virtual attention. Still, the doctrine seems no less spooky. Bernard Jansen comments that Olivi's virtual attention is "in fact equivalent to action at a distance,"<sup>46</sup> a characterization that seems just. As Olivi describes it, an agent can immediately act on a distant object without *actually* being contiguous to that object. If the notion of being virtually present makes this any less a case of action at a distance, it's not clear how. Nor does the concept of virtual attention – given its obscurity – render the account any less mysterious than Ockham's theory of action at a distance. Olivi offers a name for the mechanism of this action at a distance. But what's in a name?

Indeed, Olivi's account is in some respects more problematic than Ockham's. Olivi needs to account not just for the outward extension to the object but also, evidently, for some kind of return to the cognizer. Otherwise, it is hard to see how our faculties could have any information about the external environment. Olivi gives us several analogies, none of which is very helpful on this score. Directing one's cognitive attention to an object, he says at one point, is like shooting an arrow at a mark. The reason a greater object is more easily perceived, he says, is not that it is more able to move the senses but that, like someone aiming an arrow at a large target, "someone casting one's visual and auditory attention to a large and highly visible object more easily and unchangeably sees or hears it than something less wide and visible."<sup>47</sup> This, in contrast to the remarks quoted above, makes it seem as if there is something being emitted from the cognizer. But it gives us no clue as

44 "Dixerunt enim quod virtus solis et cuiuslibet agentis in longinquum agit per virtualem aspectum seu per virtualem conversionem et directionem in longinquum, et ideo quantum ad efficaciam virtualis aspectus et directionis praesens est toti medio in longinquum protracto usque terminum ultra quem non potest agere" (*II Sent.* q. 23; I, 424).

45 *Ibid.* (I, 425).

46 Jansen (1921), p. 118.

47 "[I]aciens suum visualem et auditivalem aspectum in obiectum altissimum et visibilissimum facilius et indeclinabilius videt illud vel audit quam minus latum minusque visibile" (*II Sent.* q. 72; III, 43–44).

to the nature of what is being emitted or how the emission manages to bring information back to the sender. He also gives a slightly better example, of light illuminating an object of a certain shape.<sup>48</sup> When light is shined on, say, a square table, the illumination takes on that shape. This, too, suggests that cognition involves some kind of real extrusion. But this still leaves obscure the kind of thing that will be emitted. (Olivi takes light to be corporeal,<sup>49</sup> ruling that out as the thing emitted by the soul.) And, crucially, the example of light taking on the form of the thing it shines on leaves unexplained how such information can be brought back to the sender. Olivi never comes close to giving a determinate account of virtual attention.

How does Olivi arrive at such an odd position? It's well to keep in mind that these claims were made in the absence of any well-confirmed theory of light or perception. What strikes us as obvious features of nature did not seem so to people of the thirteenth and fourteenth centuries. For them, these problems were wide open. Olivi advances a number of considerations in favor of his own account. In part, he appeals to introspection. We have two quite different introspective experiences of cognition, he claims. On the one hand, the action seems to be ours, and the action seems to be "extending to the object." On the other hand, cognition seems to be "a kind of affection driven into us, as it were, by the object."<sup>50</sup> But the Aristotelians among us, according to Olivi, misinterpret these experiences:

- 5.10 It is this second experience that influenced almost everyone who said that cognitive and even affective acts are imposed and impressed by their objects. They weren't paying attention to the first experience, with its fundamental characteristics.<sup>51</sup>

Those who posit species, or even one who, like Ockham, thinks that objects act directly on the percipient, pay too much attention to only one

48 Ibid. (III, 36).

49 See *Quod*. I.4.

50 "Nam pro quanto exit ab interno principio cognitivo, sentimus quod est actio nostra et quoddam agere nostrum a nobis exiens et quasi in obiectum tendens et in illud intendens. Pro quanto vero fit ab obiecto tanquam a terminante, videtur nobis esse quasi quaedam passio ab obiecto et cum ipso obiecto intra nos illapsa, acsi ipsum obiectum esset in intimo nostrae potentiae impressum et illapsum" (*II Sent.* q. 72; III, 38).

51 "Et propter hanc secundam experientiam moti sunt fere omnes illi qui dixerunt actus cognitivos et etiam affectivos influere et imprimi a suis obiectis immediatis, non attendentes primam experientiam cum suis fundamentalibus rationibus" (*ibid.*).



side of our experience. Careful attention to the experience of perception, Olivi argues, will show that the introspective evidence actually favors some kind of outward extension.

This appeal to introspection will probably not persuade many, even though Olivi may be right in claiming that perception feels more like a going out than a taking in. But Olivi's principal motivation for the virtual-extension account is not the weight of experience. Rather, he rests his argument on a negative answer to the question "Can bodies act on a spirit and on its apprehensive and appetitive powers?"<sup>52</sup> Aquinas, too, denies that the corporeal can act on the incorporeal. (Ockham, it is worth noting, did not hold this view.)<sup>53</sup> But because Aquinas holds that perception is a corporeal activity – or so I claim<sup>54</sup> – he has no problem with the traditional Aristotelian account at the level of perception. Corporeal bodies produce corporeal species *in medio*; these species produce a corporeal impression on sense organs, and this impression in turn produces a perception of the object. Aquinas finally does run into the problem of corporeal–incorporeal interaction at the level of intellect. But here he can rely on agent intellect to convert physical species into something able to inform the possible intellect.

Unlike Aquinas, Olivi viewed both perception and intellectual cognition as entirely incorporeal activities carried out by incorporeal powers. And he not only refuses to postulate some kind of agent sense to explain how physical impressions become perceptions, but he also rejects the distinction between possible and agent intellect. An agent intellect, Olivi claims, could not account for material species' making an impres-

52 "An corpora possint agere in spiritum et in eius potentias apprehensivas et appetitivas." This is the title of *II Sent.* q. 72 (III, 1).

53 See *ST* 1a 84.6c; *InDA* III.4.32–54 [sec. 617]. For Ockham, see *Rep.* II.12–13 (*OTh* V, 275), q. 14 (*OTh* V, 326, 327, 331); *Rep.* III.2 (*OTh* VI, 56, 67).

54 See Ch. 1, sec. 2. Notice that if Aquinas does not take sensation to be corporeal, it becomes hard to see how he could attribute to species *in medio* the role of "sufficient agent" (*Quod.* 8.2.1c), given his view that the corporeal cannot act on the incorporeal. If, like Hoffman (1990), one argues that species *in medio* are also incorporeal, that just pushes the problem back a step. Then it becomes hard to see how the multiplication of species could get started: how, that is, the color of physical objects could be transmitted into the medium.

Hayen (1954) suggests an imaginative (if philosophically unsatisfying) solution to this last problem. Physical objects, he proposes, are able to create immaterial and spiritual species *in medio* because of the causal influence of angels, which act indirectly through the sun and its light (p. 119). One needn't go to such lengths if one accepts my understanding of 'immaterial' and 'spiritual' in these contexts.

sion on intellect.<sup>55</sup> Generally, in fact, “no body can directly move the soul’s sensory powers, and much less the intellective ones.” And as far as

- 5.11 co-operating with some agent on its same action, or by directly producing some part of that action, in this way no body co-operates in the actions that are called apprehending or desiring or delighting in or being sad. And perhaps no one but God alone co-operates in these acts.<sup>56</sup>

Much later, George Berkeley would likewise hold that physical things cannot make an impression on spiritual things, and he would find himself drawn to an equally surprising conclusion. But whereas the conclusion Berkeley drew was that there are no such corporeal objects,<sup>57</sup> Olivi holds not that there are none, but only that they are not the efficient cause of cognition.

Olivi doesn’t think that the senses play entirely no role in cognition – his account is not that counterintuitive. The sense organs, he recognizes, do receive impressions from the external world. He notes, for instance, that the eyes can be physically damaged by looking at the sun for too long.<sup>58</sup> Indeed, because Olivi (unlike Ockham) accepts species *in medio*, he can allow that the senses receive species of light, color, sounds, and so on. But Olivi allows this reception of species only an indirect role in cognition. Indirectly, physical qualities can bring about cognition by producing a physical change in the sense organs, a change that can serve to direct the cognizer’s attention outward to some object. Olivi allows that a physical change can, through what he calls the *via colligan-*

55 See *II Sent.* q. 72 (III, 13–14) for his statement of the agent-intellect doctrine; see *ibid.* (III, 27–30) for his argument against using agent intellect to account for the physical world’s impression on intellect. At *II Sent.* q. 58 ad 13.9, he notes that Augustine never speaks of an agent or possible intellect, and says that “it has root only in the pagan Aristotle and in certain Saracens who were followers of his” (II, 460–61).

56 “[N]ullum corpus possit directe movere potentias animae sensitivas: et multo minus intellectivas. . . . Tertio modo est cooperari alicui agenti eandem eius actionem: aut aliquam eius partem directe efficiendo. Et hoc modo ad actiones quae dicuntur apprehendere vel appetere seu delectari et contristari: nullum corpus cooperatur. Et forte nullus nisi solus Deus” (*Quod. I.4; f. 3ra*). Cf. *II Sent.* q. 58 (II, 437), where he thinly veils this as the view of “some,” and q. 72 *passim*.

57 “For, though we give the materialists their external bodies, they by their own confession are never the nearer knowing how our ideas are produced; since they own themselves unable to comprehend in what manner body can act upon spirit, or how it is possible it should imprint any idea in the mind” (*The Principles of Human Knowledge*, sec. 19).

58 *II Sent.* q. 58 ad 14 (II, 480).

*tiae* (way of connection), indirectly result in a change in our spiritual faculties. (This *via colligantiae* plays an important role in Olivi's philosophy of mind and the will, being his general method of explaining the vexed connection between mind and body.)<sup>59</sup> On his account, a flash of lightning will make a physical impression on our eyes, and this physical impression can, through the *via colligantiae*, affect the spiritual sensory powers. But, crucially, this connection is not what brings about sensation. We *see* this flash, as opposed to receiving merely a physical impression from it, when we direct our spiritual attention toward it.<sup>60</sup> Speaking of someone daydreaming, he says that

5.12 frequently many affections are made on our senses that do not appear to us, as is clear in the case of someone sleeping with open eyes, ears, and nostrils. For the affections that are made in the senses then are not actual sensations, although they are specifically the same affections as those that are made in people who are awake.<sup>61</sup>

Receiving an affection (i.e., an impression) on the eye is different from seeing the thing that makes that impression, and one can have the former without the latter. Again, one point being made here is simply that the sense faculties must be active. But what makes Olivi's theory so unusual is that he denies that these physical impressions are linked to perception, as we ordinarily assume. Sensation is not the direct cause of the perception. In the case of lightning, for instance, the ocular reception of light contributes no more to seeing the flash of lightning than seeing the flash of lightning contributes to hearing the consequent thunder. In each case, the first impression serves only to get our attention.

It is important to recognize how central Olivi's advocacy of direct realism is to his position. If he were willing to say that the object of our spiritual attention is not the external object but an internal species of the object, then he could still distinguish physical impressions and cogni-

59 See *Quod. I.4; II Sent.* q. 59 (II, 546–54), q. 72 (III, 30–35), q. 87 ad 2 (III, 200–202), q. 111 (III, 273–74). See also the discussion of Jansen (1921), pp. 76–90.

60 *Quod. I.4* (f. 3ra). Also see *II Sent.* q. 58 ad 14.11 (II, 500) and q. 72 (III, 26–27), where Olivi discusses why loud noises awaken people from sleep. He refers in the last passage to “an object vehemently pressing upon and offering itself to the senses.” But this object can't be sensed, he claims, nor can this impression on the senses be noticed, unless the sensory faculties are already to some extent attentive.

61 “[F]requenter multae passiones fiunt in nostris sensibus quae nobis non apparent, sicut patet in dormiente apertis oculis et auribus et naribus. Passiones enim quae tunc fiunt in sensibus non sunt actuales sensus, quamvis sint eadem passiones secundum speciem cum illis quae fiunt in vigilantibus” (*II Sent.* q. 58 ad 14.3; II, 484).

tion. He could also give the cognizer an active role in perception and could maintain that the material does not affect the spiritual but is merely the object of a spiritual attention. Olivi works very hard, however, to avoid falling into any kind of position that might be called representationalist, that is, a view on which the immediate objects of cognition are internal. As we will see in Chapter 7, he thinks the Aristotelian account is committed to such a view. He also, to his dismay, finds Augustine sounding like a representationalist:

- 5.13 I wonder quite a bit, however, how Augustine . . . said that to sense external things is the same as not to hide or to turn toward and perceive an affection [*passionem*] – that is, a corporeal species impressed by an object not in the soul but in one’s body. For this would not be to sense the object itself but rather would be to sense only its effect, and this insofar as it exists now in the body of the one sensing.<sup>62</sup>

According to Olivi, Augustine commits himself to saying of someone asleep (cf. 5.12) that what she is aware of when awake, and not aware of when asleep, is the impressions made on the senses. In this way, he claims, Augustine confuses the objects of perception with the physical impressions those objects make. Olivi concludes that this position is contradictory and senseless, but adds that it is not necessary to follow Augustine on these points.<sup>63</sup>

Sometimes, despite Olivi’s efforts to maintain a pure direct-realist account, he comes close to slipping into this kind of representationalism. For instance, in the course of discussing the phenomenon of being awakened by loud noises, he says, “an affection brought about in a sense by contact or sound could hardly be sensed or noticed by sensing unless the power’s attention was naturally turned to the affection beforehand.”<sup>64</sup> What’s striking here is that Olivi has shifted from talking about apprehending external objects to talking about apprehending physical impressions. (This same drift can be seen in 5.12 above.) But

62 “Satis miror quomodo Augustinus, VI *Musicae* et libro *De quantitate animae*, dixit quod sentire res extrinsecas est idem quod non latere seu advertere et percipere passionem, id est, speciem corporalem ab obiecto impressam non in animam, sed in suum corpus. Nam hoc non esset sentire ipsum obiectum, immo solum esset sentire eius effectum, et hoc, prout iam existit in corpore sentientis” (*II Sent.* q. 74; III, 123–24).

63 “Ergo haec definitio habet in se vitium contrarietatis et ultra hoc vitium nugationis. Istis igitur de causis dicunt isti quod in hac parte non est necessarium Augustinum sequi” (*II Sent.* q. 58 ad 13; II, 484).

64 “[P]assio per impulsum vel sonum facta in sensu ita parum posset sentiri et sentiendo adverti, nisi aspectus potentiae prius naturaliter esset conversus ad ipsam” (*II Sent.* q. 72; III, 27).

this isn't just a careless slip on his part; Olivi has to hold that we are aware, somehow, of both physical sensory impressions and the external object. Take the case of lightning again. If the physical impression of lightning is to draw the sensory attention to noticing the lightning, then the impression itself must somehow be noticed. Olivi has several options here. He could claim that there are two sorts of perceptions, which we don't ordinarily distinguish: first, the direct perception of the external object; second, the perception of the physical impression on the sense organ.<sup>65</sup> On the other hand, Olivi could deny that this second kind of awareness is a case of perception. He might claim that we are not conscious of apprehending the physical impression (taking consciousness as a necessary condition for perception), or he might hold that even though we sometimes are conscious of apprehending the impression – say, in the case of afterimages – still, it is an abuse of language to call this apprehension a perception. It is not clear which approach Olivi would take. But regardless of his response, his direct realism will have to be qualified in some way, at least for nonnormal cases of cognition.

Olivi's arguments against species often presuppose the rejection of representationalism. Consider again the passage partially quoted in the last chapter (4.5). Here Olivi seeks to show that even if species were posited, all the elements of Olivi's account would still be needed. The species, in other words, wouldn't be doing anything.

5.14 However much the cognitive power is informed through a habit and a species differing from the cognitive action, it cannot advance to a cognitive action unless before this it actually tends toward *the object*, so that the attention of its intention should be actually turned and directed toward *the object*. And so, given that a species preceding the cognitive action is impressed by the object, beyond this the power must still actually tend toward, and intellectually attend to, *the object*; for it is impossible that it produce in itself a cognitive act without this.<sup>66</sup>

65 As we will see in Ch. 7, this sounds like Crathorn's view. Crathorn says that we perceive both the species of an object and the object itself, but we are unable, experientially, to distinguish the two.

66 "[Q]uantumcumque potentia cognitiva per habitum et species ab actione cognitiva differentes sit informata, non potest in actionem cognitivam exire, nisi prius intendat actualiter in obiectum, ita quod aspectus suae intentionis sit actualiter conversus et directus in illud. Et ideo dato quod species praecurrens actionem cognitivam sit influxa ab obiecto, adhuc praeter hoc oportet quod potentia actualiter intendat et intellective aspiciat in obiectum; nam impossibile est quod absque hoc producat in se actum cognitivum" (*II Sent.* q. 72; III, 9–10). See also q. 58 ad 14 (II, 468–69).

### *Explaining illusions*

Even if we were to apprehend the species imposed on us from without, Olivi claims here, this wouldn't count as a cognition of that object but would be a cognition of its effect only. The argument is based on the blunt assumption that we do directly apprehend external objects. The last sentence of 5.14 advances a general principle that makes this assumption explicit: a cognition not actually attending to an object cannot be a cognition (of that object). Attending to an object is a necessary condition for cognizing it.

Notice that Olivi doesn't defend this last claim. Indeed, one might hope to improve on Olivi's account by giving up his direct realism while retaining the rest of his account, which would leave us with something much like the Augustinian position described in 5.13. Given Olivi's other claims, this might appear to be a far more plausible position for him to hold. He could then say that we see the flash of lightning not by a virtual attention to the object but by directing that attention to the physical impressions made on our sense organs. On this account, then, there would be no need to postulate a mysterious virtual attention that somehow reaches out to objects themselves. Our cognitive faculties would remain thoroughly active, but a clearer role would be given to the external objects.

In fact, however, it's not evident that Olivi's view would become any more plausible if he confined this spiritual attention to the head, as he takes Augustine to have done. If, like Olivi's Augustine (and like many of the early "modern" philosophers), we accept some kind of spiritual awareness of the physical impressions inside our head and the rest of our body, then why not allow a spiritual awareness of *external* physical objects? A long philosophical tradition has made quite palatable the claim that if there is an immaterial soul, it will somehow have immediate awareness of what is happening in our body. But once the corporeal-incorporeal gap has been crossed, why not allow that the soul's attention can be directed externally as well as internally? The idea strikes us as extravagant, to say the least. But for Olivi, this extravagance is preferable to either allowing the corporeal to affect the incorporeal or being forced to say that all we directly apprehend are the impressions we receive from without.

### 3. EXPLAINING ILLUSIONS

Aquinas seems never to have argued explicitly for his species account – perhaps because during his lifetime it was never challenged. The need for species was attested to by Augustine, as well as by Aristotle and his

commentators, and it was not until Olivi that the theory would receive a systematic challenge. Indeed, as Cajetan notices, in his commentary on the *Summa theologiae*, Aquinas appears to take species for granted when considering the question of “through what the soul has cognition of corporeal things” (*ST* 1a q. 84). As Cajetan points out, the issue should get raised immediately after this question’s second article, in which Aquinas shows that intellect does not grasp corporeal things “through its essence.” Instead, Aquinas goes on in article 3 to *presuppose* that, if not through its essence, soul cognizes through species. To Cajetan, writing in the early sixteenth century, this looked like a potentially embarrassing hole in the argument.<sup>67</sup>

Aquinas wasn’t in a position to see how controversial these issues would become. But if he had thought to defend species, he might have appealed first to the need for contact between mover and moved: “in the case of a sense’s alteration, the things altering and altered coincide.”<sup>68</sup> But given Olivi’s and Ockham’s readiness to overthrow this Aristotelian causal principle, Aquinas might next have resorted to what has become known as the argument from illusion. The argument asserts that we sometimes have perceptions that do not match things as they really are, as when we see a stick bent in water or have blurred vision. In such cases, the argument runs, the direct object of our perception cannot be the external, material object, because that object lacks those features. Therefore, there must be something else, besides the physical object, being perceived.

The argument from illusion has often been taken as the best evidence for sense-data or some such intermediary between percipient and external object. (A. J. Ayer: “Why may we not say that we are directly aware of material things? The answer is provided by what is known as the

67 Naturally, Cajetan attempts to fill the hole on Aquinas’s behalf, and he makes a clever and interesting suggestion. Where question 84 refers to ‘intelligible species,’ Cajetan suggests that we understand Aquinas as speaking generally of likenesses. Then no argument for the existence of such species is needed, because (as Cajetan rightly remarks) “no one denies that in the soul of the one cognizing there is a likeness of the thing being cognized” (84.3.II). As for the controversial question of how this likeness or species is to be interpreted (“whether the likeness goes before the act, or is the act, or is the act’s terminus”), Cajetan says that Aquinas reserves this issue for q. 85 a.2.

68 “Deinde cum dicit: *Huic autem* etc., probat secundum, quod in alteratione sensus alterans et alteratum sint simul” (*InPhys.* VII.4.911). See also *InDA* I.6.157–59 [sec. 76], II.15.87–92 [sec. 432] (1.9), III.17.292–303 [sec. 864]; IV *Sent.* 10.1.4.1c.

argument from illusion.”)<sup>69</sup> Aquinas never makes anything like the argument from illusion; as we will see in Chapter 6, he denies that species are the immediate objects of perception. But Aquinas does often enough refer to sensory illusions. His favorite example is of sweet things tasting bitter because of sickness, but he has other examples, too, such as a white object seen through a colored window, and the double vision that results from pressing on the eye with one’s finger.<sup>70</sup> Although he doesn’t explicitly spell it out, it’s clear how Aquinas’s theory would account for such illusions. The species that is white when it leaves the object becomes colored when it passes through the window. The species *in medio* that represents a single image becomes a blurred sensible species when it passes through two eyes that aren’t properly aligned. For Aquinas, then, these cases are relatively unproblematic. (They aren’t wholly unproblematic: I’ll discuss in Chapter 6 whether Aquinas would want to say that in such cases we *see* the species.) Olivi and Ockham, in contrast, have to work to account for such cases, given that they have abandoned all representational intermediaries between percipient and object.

Olivi says that some have objected to his account with the example of afterimages from a bright light. The afterimage, the objection runs, “is a species of the light, existing in the eye, through which we first saw that extrinsic light.”<sup>71</sup> Olivi denies that the afterimage is a species. He points out, with some plausibility, that if the afterimage were a leftover species of the bright light, then it should seem to us as if we were still seeing that light. But that’s not how afterimages look; they look, he says, like

69 Ayer (1940), p. 3. But compare this with the view of Frank Jackson, himself a proponent of representationalism:

It is time to mention the notorious arguments from illusion, variation, perceptual relativity, and so on and so forth. And let me say straight away that I think these arguments prove nothing, and, consequently, nothing in what follows depends on them. I believe that the current opposition to sense-data derives in large measure from their unfortunate historical association with these arguments. (Jackson 1977, p. 107)

70 For the first example, see *InDA* III.6.70–72 [sec. 661], III.7.131–59 [sec. 680]; *ST* 1a 17.2c, 85.6c. For the latter two, see *QDV* 1.11 sc 2, 3. For more on Aquinas and sensory illusion, see Baertschi (1986).

71 “Dicunt enim quod illa lux quam tunc videmus est species lucis existens in oculo per quam primo videramus ipsam extrinsecam lucem” (*II Sent.* q. 73; III, 88–89). This passage merely refers the reader to the more-extended discussion of q. 58 obj. 14.8 (II, 406) and ad 14.8 (II, 493–96).



some illumination *in the eye*.<sup>72</sup> So he suggests that the afterimage is “some likeness or resonance of that vision, remaining in the organ.”<sup>73</sup>

Notice two things about this reply. First, Olivi is taking for granted that this leftover likeness will be apprehended somehow. But, as we saw in the last section, Olivi is committed, for other reasons, to thinking that we can perceive not just external objects, but also the internal impressions they make on our sense organs. So there is nothing surprising about his making that assumption here as well. Second, resorting to likenesses at this point is obviously a step in the direction of the traditional species theory. But it is a harmless step. As noted already, Olivi does not deny the existence of species *in medio*, he just denies that these species play a direct causal role in cognition. He can still insist that this likeness in the eye, however close it might seem to a species, neither is nor was an intermediary in the causal process of seeing the light. And there’s nothing implausible about Olivi’s insisting that the likeness itself is *only now* being perceived. He has already pointed out the important phenomenological difference between seeing the bright light and seeing its afterimage. It makes perfect sense, then, to think that the former case involves seeing the light directly, whereas the latter involves seeing only a likeness of the light.

This is, however, an easy case. And when Olivi takes on harder cases, his replies are not so plausible. Consider the example, which would later become common (cf. 2.6), of a burning torch being swung around in a circle. One sees a flaming circle, or so it seems. But how could Olivi explain this, given that there is no flaming circle toward which our virtual attention can direct itself? His rather implausible reply in this case is to deny that we do see a flaming circle. Instead, all we see is one part after another, and never two parts at the same time.<sup>74</sup> If it seems as if we are seeing a circle, that is because the interior sense retains a memory of the prior impressions and makes it seem that way. So Olivi denies that any illusion is taking place in the external senses. The illusion occurs in memory, where Olivi is happy to allow that we do store images. As far as our vision is concerned, we are not seeing any circle, whether real or fictive. We are simply seeing a flame at one point and

72 *Il Sent.* q. 58 ad 14.8 (II, 495).

73 “Et ideo post subitam clausionem oculorum adhuc remanet intrinsecus multum de illo aspectu, et in ipso organo remanet aliqua similitudo seu resultatio ipsius visionis educta in organo per ipsum actum visionis intensum et fortem” (ibid.; II, 496).

74 “[V]idemur nobis videre quendam circulum igneum; cum tamen visus in nullo uno instanti videat illum circulum . . . sed solum unam partem videt post aliam, sic quod nunquam duas simul” (*Il Sent.* q. 73; III, 99).

## Explaining illusions

then another, in such close succession that it *seems* as if we're seeing a circle. Despite his efforts, this doesn't seem like a promising line of argument.

Another problematic case for Olivi is that of double vision. He puts the objection to his theory quite clearly:

- 5.15 To the contrary, however, it may be said that because a thing never exists at the same time in more than one place, and because visual rays could reach it only where it exists, never on this reasoning will one thing seem to be two.<sup>75</sup>

Put in terms of Aquinas's example of creating double vision by pressing on the eye, the question becomes how doing something to the eye could lead our virtual attention to see double. Olivi's reply is that, in such cases, there are two virtual attentions (one for each eye), one directed to the actual object, the other thrown off course by the improper focus of the disturbed eye. There is no doubled species in such cases – there is no image inside us representing the object as doubled. Rather, there are two conflicting virtual attentions that result in one distorted act of vision. Olivi says much the same about mirrors. There is no internal species that is a mirror image of the object. Rather, "the attention that is fixed on the mirror is stronger than the one that is reflected from the mirror to the object."<sup>76</sup> So we see the object as it is reflected in the mirror. And perhaps he would say to Aquinas's example of the white object seen through the green window that our attention is more strongly directed to the window than to the object. But his theory sounds more and more contrived with every example, and because it is so unclear what this virtual attention really is, it is hard to know what could be done to save his account.

Ockham, as we saw in section 1, maintains that in cases of intuitive cognition we don't apprehend species. This was one of two arguments we saw him give against the species theory. The problem I raised at the time for this claim was the argument from illusion. It seems as if, in cases of illusory perception, a species is the only thing we could be perceiving. In making a reply to this sort of objection, Ockham has to concede one point to the traditional species theory: the external senses

75 "Si autem contra hoc dicatur quod cum res nunquam sit simul in pluribus locis, nec radii visuales possint eam attingere nisi ubi est, nunquam secundum hoc una res videbitur esse duae" (*II Sent.* q. 58 ad 14.8; II, 494).

76 "[R]es videtur esse in speculo et non in loco suo, quia fortior est ille aspectus qui figuratur in speculo quam ille qui de speculo reflectitur ad rem" (*ibid.*; II, 495). For another case of split attention, see q. 37 ad 5 (I, 667).

*Are species superfluous?*

do receive impressions from without. Ockham calls these impressions qualities, however, not species.<sup>77</sup> And, like Olivi, Ockham denies that these qualities play a direct causal role in normal cases of cognition.

His account runs most smoothly in the case of afterimages. Like Olivi, Ockham denies that the afterimage plays or played a causal role in the original perception. The afterimage is not a leftover, weakened species of the object. Rather, it is a by-product of the first perception and is itself only now being perceived:

- 5.16 Hence, that quality is impressed on sight by the sensible object at the same time as the first act of seeing, and it is not the object of that act. But after the first act is terminated at some outstanding sensible object, sight has another more imperfect act, which is called an apparition. . . . And with respect to this second act, that quality is the object and partial cause.<sup>78</sup>

Ockham is perfectly willing to allow that, in such cases, an internal “quality” becomes the object of perception. But he would insist that this does not show that internal impressions are *ordinarily* the objects of perception. Nor was that internal quality even a causal intermediary in the original perception. As we’ve seen, in such cases, Ockham relies on action at a distance.

What about harder cases? The case Ockham considers most often is that of mirror images. What is the object of vision when we see something in a mirror? Ockham recognizes, at one point, that something far in front of a mirror appears to be far behind it.<sup>79</sup> So how can we be seeing the object? Aren’t we instead seeing an image of the object, depicting the object as being behind the mirror?<sup>80</sup> Ockham insists that we don’t see an image or species of the object in either ourselves or the

77 See *Rep.* III.3 (*OTh* VI, 98–129).

78 “Unde illa qualitas imprimitur in visu a sensibili simul cum actu primo videndi, et non est obiectum illius actus, sed post primum actum terminatum ad aliquod sensibile excellens habet visus alium actum imperfectionum qui vocatur apparitio, et est cognitio intuitiva, imperfecta tamen, et respectu illius actus secundi est illa qualitas obiectum et causa partialis” (*Rep.* III.3; *OTh* VI, 111–12).

See also *Ord.* 27.3 (*OTh* IV, 250) and *Quod.* VI.6 (*OTh* IX, 606): “Non manet visio solis, sed manet aliqua qualitas, puta lux impressa oculo, et illa qualitas videtur.”

79 *Rep.* III.2 (*OTh* VI, 78).

80 Again, cf. Ayer (1940): “But can it be denied that when one looks at oneself in the glass one is seeing something? And if, in this case, there really is no such material thing as my body in the place where it appears to be, what is it that I am seeing? Once again the answer we are invited to give is that it is a sense-datum” (p. 5).

mirror. Rather, we see the object itself. The reason we see the object as differently situated is that we see it through a reflected path.<sup>81</sup>

Is this an adequate reply to the argument from illusion? It is, I think, at least plausible. Ockham denies what seems to be an implicit premise in the argument: when we see something as having certain characteristics, we must see *some thing* that actually has those characteristics. The argument assumes, in the case of the mirror, that we can't be seeing the object reflected in the mirror, because that thing doesn't have the proper characteristics: being reversed, looking as if it's behind the mirror, and so on. But Ockham would simply deny that there must be some object of perception that has those features: "The external sensible object immediately moves sense and intellect to an intuitive act" (5.3). Ockham thinks he can tell the causal story of how this happens without postulating any intermediary species. And he sees nothing in the logic or grammar of perception that should compel him to hold that, when the object *looks* as if it's behind the mirror, we are seeing something with that look.

This kind of response is plausible for a large number of illusions. He applies this approach to a variety of different cases, such as afterimages, a coin seen in water, a stick that looks bent in the water, a stick moved in a circle (Olivi's example above), and the apparent movement of the trees when one is moving in a boat.<sup>82</sup> In discussing these examples, his target is Peter Aureol, who (as we saw in Ch. 2, sec. 3) takes sensory illusions to be the best evidence for the existence of apparent entities that have some sort of nonreal, intentional existence. Ockham, after quoting verbatim from Aureol's work, gives a cogent reply. His answer to the last of these illusions is clearest. He simply denies the following inference: "the trees appear to move, therefore some movement appears or has objective existence."<sup>83</sup> With regard to a case in which one has a double vision of a candle, he denies that there are two candles or apparent candles: all there is is a judgment or perception that there are two candles. "But it doesn't follow from this that there is anything different in any way from the candle, its parts, and the act of cognizing in the [cognitive] power."<sup>84</sup> Generally, Ockham claims, there's no reason to think that the only way illusions can be explained is by postulat-

81 *Rep.* III.2 (*OTh* VI, 57, 68, 77–78, 96–97); *Ord.* 27.3 (*OTh* IV, 248–49).

82 *Rep.* III.2 (*OTh* VI, 78, 95); *Ord.* 27.3 (*OTh* IV, 230–50).

83 *Ord.* 27.3 (*OTh* IV, 244).

84 "Nec sunt ibi duae candelae in esse apparenti. . . . Intelligendo tamen quod sunt duae candelae in esse apparenti isto modo quod sit ibi iudicium quo iudicantur esse duae candelae, potest concedi in intellect et aequivalenter in sensu. Sed ex hoc non sequitur quod sit aliquid quocumque modo aliud a candela et partibus ipsius et ab

ing some kind of intermediary appearances. We can have nonveridical experiences in many different ways, he says, and “what suffices in every case is an external object along with acts of apprehension in the cognitive powers – without any medium such as intentional existence.”<sup>85</sup>

There is, however, one phenomenon that Ockham (and Olivi) would be hard-pressed to explain, namely, the temporal interval between the occurrence of a sensible event outside us and our perception of that event. This point can be made quite dramatically today: we know, for instance, that the things we now see taking place in distant parts of the universe actually happened thousands of years ago. Most of the Scholastics, in contrast, followed Aristotle’s lead in believing that light is transmitted instantaneously. (One notable exception is Roger Bacon, who claimed that the movement of light does require time: “an insensible amount, that escapes perception on account of its brevity.”)<sup>86</sup> But even if light and hence color were thought to be transmitted instantaneously, the Scholastics recognized that sounds and odors are not,<sup>87</sup> and this poses a serious problem for both Olivi and Ockham.

For Olivi, the problem will require more ad hoc explanations. In the case of lightning and thunder he will have to say that although our spiritual attention is fixed on the same object, it somehow takes longer for that attention to produce the sound of the thunder than it takes to

actu cognoscendi in potentia” (*Ord.* 27.3; *OTH IV*, 247–48).

It’s harder to know how Ockham would respond to color examples, because although he denies that intentional species of colors are multiplied *in medio*, he allows that real colors sometimes exist *in medio*. Hence, he might say that when we see a white object in a green window, we actually see the green colors that exist either in the glass or in the air on our side of the glass. But I don’t know how he could reconcile that with the intuition that in such cases we are still seeing the white object (cf. *ibid.*).

85 “Ad illud quod infertur quod negans tale esse apprens et intentionale negat omnem ludificationem, dicendum est quod non. Nam ludificatio fit multis modis. . . . Sed ad omnia ista sufficiunt res extra cum actibus apprehensivis in potentiis cognitivis sine omni medio tali quale ponitur esse intentionale” (*ibid.*, 250).

86 “Quoniam multiplicatio speciei ad omnem distantiam est in instanti, ut plures aestimant, vel magis in tempore sed tamen insensibili, et latet sensum hoc tempus propter sui parvitatem” (*Opus Majus* pt. V(1) d. 7 ch. 3). See also *ibid.* d. 9, ch. 3. In contrast, cf. Aristotle *De anima* ii.7 (418b20–27); Aquinas *InDA* II.14.183–98 [secs. 410–12], II.23.187–98 [sec. 544]; Olivi *Quod*. I.1. Bacon was by no means the first to deny that light is transmitted instantaneously. He himself was in fact drawing on the eleventh-century Arab scientist Alhazen, who had argued at length that the propagation of light requires time. For details, see Lindberg (1978).

87 See Aquinas, *InDA* II.23.187–98 [sec. 544].

produce the flash of the lightning. (Although Olivi didn't notice this problem, he did recognize the epistemological problems that would result if colors were not transmitted instantaneously.)<sup>88</sup> Ockham's position is little better. It seems he has to admit that the event producing the noise – the lightning bolt – can occur at one time and then a while later, after the event is over, can produce a sensation in a distant observer. He has to admit, that is, that one thing can directly affect another not only when spatially remote but also when temporally remote. (Indeed, it seems that a thing can be the direct cause of a sensation even after it has ceased to exist; think of our seeing a distant star that in fact no longer exists.) It is hard to see, however, how immediate causation could admit of, much less require, a temporal interval. A prior event can set a chain of motion into action, eventually resulting in an effect some time after the original event. (This is precisely the story that Aquinas would tell in such a case.) But for an event to be the *direct* and *immediate* cause of an effect, it seems that the two must coincide at least temporally. If Ockham is going to reject such a claim, then he needs at least to argue for it, just as he argues for action at a distance.<sup>89</sup>

#### 4. SPECIES AND PARSIMONY

The argument Ockham uses most often against species is based on the principle of parsimony:

- 5.17 In order to have an intuitive cognition, one need not postulate anything beyond intellect and the thing cognized, and no species at all. This is proved, because what is done through many is done in vain if it can be done through fewer. But through intellect and the thing seen, without any species, an intuitive cognition can be brought about; therefore, etc.<sup>90</sup>

This is, of course, Ockham's most characteristic form of argument. Olivi, in contrast, never argues against species on this basis, nor does he tend to use the principle of parsimony in other contexts. Assuming we accept the principle of parsimony (and no one who does not will find Ockham very interesting), there are two crucial premises in 5.17. One,

88 *Il Sent.* q. 26 (I, 452).

89 Maier (1951), pp. 154–60, raises a parallel problem for Ockham's account in the case of movement.

90 "Ad cognitionem intuitivam habendam non oportet aliquid ponere praeter intellectum et rem cognitam, et nullam speciem penitus. Hoc probatur, quia frustra fit per plura quod potest fieri per pauciora. Sed per intellectum et rem visam, sine omni specie, potest fieri cognitio intuitiva, igitur etc." (*Rep.* II.12–13; *OTH* V, 268). See also the passages cited in n. 18.

obviously, is that a tenable account of cognition can be given without species. We've already considered, to some extent, whether Ockham is right on this point. The second crucial premise, never clearly stated and never argued for, is that Ockham's act theory is actually more parsimonious than the rival species theory. I want to claim that Ockham isn't clearly entitled to this second assumption.

It is important, in considering this question, to distinguish the different kinds of species Ockham rejects. He denies that there are species *in medio*, species in the external sense organs, species in the internal perceptual senses, and species in intellect. (Here, as above, I am using the term 'species' as Ockham does, so as to exclude habits and memory species; see n. 7.) We can ask of any of these kinds of species whether Ockham is right in claiming that his account is more parsimonious. It is hard to answer this question for the species *in medio* and in the external sense organs, because it's just not very clear how Ockham conceives of colors, say, passing through air, or what he thinks is transmitted through the eyeball and down the optic nerve. Without a better idea of Ockham's physical theory of the medium and his physiology of the sense organs, it is hard to do the kind of counting needed to support a claim of parsimony. So I want to leave aside the physical, intermediary species that Aquinas thinks are needed to ensure contact between mover and moved and focus only on what we might think of as the *final* species in the series leading up to an act of cognition. It is this species that informs the cognitive faculty and actualizes it – that is, produces a cognitive action. This species will be either a sensible species, if the faculty is one of the senses, or an intelligible species, if the faculty is intellect.

To put the point more simply, although less precisely, I want to ask whether it is a gain in parsimony to eliminate sensible and intelligible species, putting to one side species *in medio*. Ockham's reasons for thinking that it would be a gain are quite straightforward. On the species theory, there seem to be three elements in an ordinary cognition: a cognitive power or faculty, a species of the right sort, and an object to produce that species. (Again, I leave aside species *in medio*.) But on Ockham's theory, only two things are required, as he says in 5.17: a cognitive power and the thing cognized (which is an external object). So, even putting aside the dispute about action at a distance, it appears that Ockham's theory can do with two things what Aquinas's needs three to do.

Ockham never tells us, however, what his criterion for counting is. He evidently would have us count the external object, the cognitive

## *Species and parsimony*

power, and the species as three separate things. At times, however, Aquinas suggests that the cognitive power and the species informing it should be taken as one thing, not two:

- 5.18 In a human intellect, the likeness of the intellectually cognized thing is different from intellect's substance and exists as its form. Hence, from intellect and the thing's likeness, *one complete thing is produced*, which is the intellect actually engaged in cognizing.<sup>91</sup>

Aquinas would have us count differently than Ockham would. The species that informs intellect isn't a separate thing (on his way of counting things) from intellect. It is, he says on many occasions, a form of intellect. An intelligible species, as he suggests in 5.18, is not the substantial form but an *accidental* form of intellect; it gives intellect the characteristic of actually cognizing a certain thing.<sup>92</sup> Hence it's quite misleading to think of intelligible species and intellect as two different things. A species, as an accidental form, is what we might call a property or a state of intellect (or of a sensory power). This should lead us to wonder about Ockham's criterion for counting. Is his theory more parsimonious merely in virtue of eliminating a cognitive state?

At this point, an even larger problem for the act theory looms. Even if we were willing to count the elimination of a cognitive state as a real ontological reduction, it's hard to see how Ockham can do without such states in his theory. On his view, "the external sensible object immediately moves sense and intellect to an intuitive act" (5.3). Surely, what this means is that the external object immediately puts sense or intellect into the sort of state required for an act of cognition to follow. Leaving aside action at a distance, however, that's exactly what Aquinas's view seems to be. Ockham talks of moving intellect, whereas Aquinas speaks of informing intellect with a certain species. But the analysis of these two claims seems identical: both involve putting intellect into a certain state such that cognition with a certain intentional content follows. So this portion of Ockham's account, I would suggest, is no more parsimonious than Aquinas's, because it isn't different from Aquinas's.

There seems to be only one way for Ockham to deny this point: he would have to hold that cognitive powers do not cognize in virtue of being brought into a certain state. So Ockham would have to hold that it

91 "In intellectu vero humano similitudo rei intellectae est aliud a substantia intellectus, et est sicut forma eius; unde ex intellectu et similitudine rei efficitur unum completum, quod est intellectus in actu intelligens" (II *Sent.* 3.3.1c). See also *ST* 1a 55.1 ad 2; IV *Sent.* 49.2.1c; *QDV* 8.1c, 8.6c, 18.1 ad 1; *SCG* I.44.376, I.51/52.434, III.51.2287.

92 See, in particular, *InJoh.* I.1.28.



is not the case that, when we see a red circle, our visual faculties are put into a certain state. Rather, he would have to claim that our cognitive faculties stay as they are and are moved to their act (seeing red) by the external object. Such a position would be the most extreme and absurd kind of externalism about mental representation. If Ockham were going to deny species in all cases, then he would have to hold that mental content is never determined by our internal mental states. This is absurd, no matter what one's theory of mental representation. And it is out of the question for Ockham, given his reluctance (as we saw in Ch. 3) to invoke any external facts to explain mental content. I don't see, therefore, how Ockham can deny that the external object's movement involves putting the cognitive power into a certain state. But, as we've seen, Aquinas's talk of the cognitive power's being informed by a species might easily be taken as Aristotelian shorthand for precisely this claim.

This same point can be made in another way. When Ockham says that the object itself can bring about an act of cognition, without any intervening species (5.2), we should wonder about the ontological status of the *act* he refers to. In Ockham's ontology, only substances and qualities are allowed; members of the other Aristotelian categories, such as quantity and relation, must be reducible to these two.<sup>93</sup> So, what is the status of an act of cognition, which would naturally seem to fall into the category of action? Presumably, Ockham will want to say that an act of intellectually cognizing can be reduced to an intellect that has certain qualities, that is, an intellect in a certain state. But here we reach the same problem as before, namely, that this seems to be Aquinas's position as well. If intellect's being informed by species amounts to nothing more than its being in a certain state, then Ockham can't do without such species.<sup>94</sup>

So, once a clear notion of sensible and intelligible species is developed, as the final step in the causal process leading to an act of cognition, and as distinct from the antecedent species *in medio* and in the sense organs, it looks as if Ockham's denial of such species is merely a terminological revision. He has given up talk of species, but he doesn't seem to have produced a substantively different account. These considerations suggest that the real disagreement between Ockham and Aquinas is over action at a distance and whether external objects move the cognitive power directly or indirectly. Their disagreement over species

93 See, e.g., *Quod*. IV.27, V.22; Adams (1987), chs. 5–9.

94 See Paul Vincent Spade (1990), pp. 602–8, for a general discussion of how Ockham might give a reductive account of actions.

need not be taken as a disagreement about the proper analysis of cognition but about the possibility of direct causal influence at a distance. When brackets are put around the latter dispute, their theories do not seem to differ significantly.

A moral that might be drawn from this discussion is that it is crucial not to reify species. Species exist independently no more than do any other kind of form. (Aquinas does treat angels as forms that exist independently of matter. But this is obviously not a very promising model for thinking about sensible and intelligible species.) To treat species as a kind of free-floating representation that exists sometimes *in medio*, sometimes in the senses, and sometimes in intellect represents a conceptual confusion. Species, as accidental forms, have the same ontological status as shapes or sizes. If the argument of the last few pages is correct, it is no more coherent to talk about eliminating species from cognition than to talk about eliminating shapes or sizes from objects. 'Cognition without species' makes no more sense as a slogan than does 'physical objects without shape.' (This mistake is closely connected to the interpretation of Aquinas I rejected in Ch. 1: that Aquinas holds an immaterial theory of sensation. If such an immaterialist account is right, then there had better be some immaterial stuff for sensible species to inform. But what could that be?)

Further, this mistake is quite analogous to the mistake (perhaps more often warned against than actually made) of taking Aquinas's rational soul to be equivalent to Descartes's immaterial mind. Aquinas himself draws the parallel between his concept of species and his concept of soul:

5.19 A species that is intellectually cognized in actuality must complete an intellect that is in a state of potentiality. From their conjunction, one complete thing is produced, which is an intellect in actuality – just as from soul and body one thing is produced, which is a human being having human operations. Hence, just as the soul is not different from a human being, so the thing actually cognized intellectually is not different from an intellect actually cognizing, but the same.<sup>95</sup>

In neither case, Aquinas emphasizes, should the form be taken as a separate entity. The soul is just the formal part of a human being, that is, that which makes it function. An intelligible species is just the formal

95 "Et oportet quod haec species, quae est intellecta in actu, perficiat intellectum in potentia: ex quorum coniunctione efficitur unum perfectum, quod est intellectus in actu, sicut ex anima et corpore efficitur unum, quod est homo habens operationes humanas. Unde sicut anima non est aliud ab homine, ita intellectus in actu non est aliud ab intellectu intelligente actu, sed idem" (I Sent. 35.1.1 ad 3).

*Are species superfluous?*

part of an actualized intellect. And, as we've seen, all the latter means is that the species is the state of a cognitive power in virtue of which it produces an act with a certain intentional content. But everyone thinks that cognitive powers have such states. Properly understood, then, there need be nothing controversial about such species.

In Chapter 6, however, we will see reason to question this conclusion as far as Aquinas is concerned. Aquinas does not always treat sensible and intelligible species as mere states of mind. Often, despite the availability of the position I've described here, he treats species as internal objects of cognition. Therefore, a certain ambivalence appears in Aquinas's treatment of species, and this is what makes Ockham's (and Olivi's) proposals genuine alternatives.

## Chapter 6

### Aquinas and direct realism

It is useful to distinguish between a naive and a sophisticated theory of species. On the naive account, species are themselves the objects of cognition. They are literally likenesses of the external world – pictures, almost. The naive species theory rejects direct realism. It holds, instead, a representationalist theory of perception, according to which it is species that we directly perceive, whereas the external world is perceived indirectly. The naive species theory, therefore, holds a realist theory of perception but not a *direct*-realist theory. In calling this naive account “representationalist,” I do not mean simply that it employs species as representations of the external world. Such species are by definition representations, in the bland sense in which I am using that term (see Intro., sec. 2). The naive theory, then, claims not just that species represent the external world but that they are the objects of our cognitive attention. Representationalism, therefore, embraces indirect realism, and this is the stance of the naive species theorist.

On the sophisticated theory of species, in contrast, species may be intermediaries between our cognitive faculties and the external world, but they will be only causal intermediaries. Species will not themselves be the objects of cognition, because they play their role at an entirely subcognitive level. There will be no grounds, on the sophisticated theory, for saying that human beings apprehend the external world indirectly. This is because according to the sophisticated theory, there is no more direct way in which we can apprehend the world. The sophisticated defender of species is a direct realist.

The conclusion of Chapter 5 was that species can be given a sophisticated defense. Indeed, conceived of as mental states, no theory of cognition can do without such species. So if one chooses to read Aquinas in this way, then his doctrine of the mind’s taking on species of the external object becomes entirely uncontroversial. But this is only one way to read Aquinas. Although at times he suggests that species might be

equivalent to mental states (see 5.18 and 5.19), in many other passages he gives species the status of *objects* of cognition – in other words, internal and immediately apprehended representations of the external world.

A choice confronts us. We can, on one hand, try to interpret Aquinas in such a way that his species (or something equivalent to them) will be an uncontroversial part of any theory of cognition. On this reading, Olivi's and Ockham's rejection of species turns out to be far less interesting than one might suppose. The supposed novelty of their proposals collapses, because their views turn out to be based on a misreading of the species doctrine.

I see things differently. On my reading, Olivi and Ockham have not misunderstood the species doctrine; they have instead seen that it is based on highly questionable suppositions about mind and perception. The Aquinas presented in Chapter 5, I will argue here, captures only one part of the real Aquinas, who is committed to a theory in which species function as the very sort of cognitive intermediary that Olivi and Ockham would eliminate.

The interpretative choice I'm proposing conflicts with the recent trend in Aquinas scholarship, which attributes to him a view like the one I described in Chapter 5. John Haldane, for instance, has argued at length that Aquinas's species are not in any sense the objects of cognition; he denies, for instance, that we should take Aquinas's mental concepts as "the *relata* of psychological attitudes."<sup>1</sup> Anthony Kenny, to take another example, writes in his recent book on Aquinas that "in Aquinas's theory there are no intermediaries like sense-data which come between perceiver and perceived."<sup>2</sup> And, according to Joseph Owens, both Aristotle and Aquinas are, epistemologically speaking, "radically distinct from modern philosophers, who from Descartes on base their philosophy upon ideas or sensations or vivid phenomena, instead of immediately on external things themselves."<sup>3</sup> I want to question how radically distinct Aquinas really is. As we will see, there is a sense in which Aquinas's epistemology *is* based on internal sensations as the objects of cognition.

The trend in recent scholarship, therefore, is to attribute to Aquinas a sophisticated theory of species. (No one seems to have noticed, however, that, if that interpretation is right, then Ockham's and Olivi's

1 Haldane (1989a), p. 25.

2 Kenny (1993), p. 35; cf. Kenny (1980), pp. 70–71.

3 Owens (1993), p. 53. For more in the same vein, see J. L. Solère (1989), p. 27; Ausonio Marras (1976), pp. 223–24; Édouard-Henri Wéber (1970), ch. 7.

rejection of such species becomes untenable.) My claim is that Aquinas can best be thought of as holding a seminaive species theory (or semi-sophisticated, if you prefer to see the glass as half full). Although he explicitly rejects representationalism and denies that species are (ordinarily) the objects of cognition, at the same time he takes species to mediate cognition not just causally but psychologically. For Aquinas, in other words, species themselves are in some sense the *objects* of apprehension. What I'm attributing to him is sometimes called an *act-object account* of perception.<sup>4</sup> According to this doctrine, as I'll be understanding it, the act of perceiving an external object takes place through the apprehension of a mental object. The proponent of the act-object doctrine will analyze cognition into a perception-like relationship between an internal cognitive faculty and an internal object representing the external world. An advocate of the act-object doctrine may or may not claim to be a representationalist. One might explain perception in terms of the apprehension of a mental object without insisting that this means we perceive the external world indirectly. As we will see, it's not obvious how to defend the act-object doctrine without falling into representationalism. But this, I believe, is the balancing act Aquinas must try to perform.

One problem with an act-object analysis of cognition is that the notion of a perception-like relationship between our cognitive faculties and our inner impressions is rather murky, and perhaps in the end unintelligible. Nothing in this chapter will shed much light on the plausibility of the act-object doctrine; where Aquinas seems to invoke such an analysis, he leaves utterly unclear the sense in which species are themselves apprehended. It might turn out, on close inspection, that this doctrine is nothing more than a misleading metaphor for the mind's operations, with no theoretical content behind it. But if it is no more than a metaphor, I think all the same that it is a metaphor to which Aquinas is committed.

## 1. THE OFFICIAL POSITION

Aquinas's official position on representationalism is that species are not themselves ordinarily the objects of perception or intellectual cognition

<sup>4</sup> The terminology I am employing in this and the previous two paragraphs – representationalism, direct realism, and the act-object doctrine – corresponds with contemporary usage in the philosophy of perception. See, e.g., the introduction to Dancy (1988), pp. 6–9. It is ordinarily assumed, however, that the act-object doctrine entails representationalism, an assumption I resist.

but are the media through which external things are apprehended. He states this position most often by distinguishing between that which (*id quod*) we perceive and that by which (*id quo*) we perceive. The crucial point is that the species are the intermediaries *in virtue of which* we apprehend the external world:

- 6.1 The likeness of a visible thing is that in virtue of which sight sees. And the likeness of an intellectually cognized thing, an intelligible species, is the form in virtue of which intellect cognizes. . . . That which is intellectually cognized first is the thing of which the intelligible species is a likeness.<sup>5</sup>

Aquinas thinks that species can be the objects of cognition when we reflect on our own acts of apprehension. But in the ordinary case, when we are focused on the external world, species are not the things cognized but the things by which we cognize. As we saw in Chapter 5, species do play a causal role in Aquinas's account. The species is causally more immediate to the cognizer than is the external object. For this reason Aquinas often calls species the "source" (*principium*) of cognition, or the "medium" of cognition.<sup>6</sup> But Aquinas maintains that these causal facts do not entail any further facts about what the objects of cognition are or whether we have knowledge of things beyond our own sensations.

On the "official" view, then, species are not the things cognized but the things in virtue of which we cognize (6.1). This insistence that species are not themselves (ordinarily) the things cognized is a frequent theme in Aquinas's writing and one he emphasizes from his earliest works on. In the *Sentences* commentary, he writes, "what is seen, strictly, is what has existence outside the one seeing."<sup>7</sup> In his later works, he tends to express himself even more absolutely: "the species received in the possible intellect is not constituted as that which is intellectually cognized. . . . The species of color in the eye is not that which we see."<sup>8</sup> What we see and cognize, in ordinary cases, is the external world.

- 5 "Unde similitudo rei visibilis est secundum quam visus videt; et similitudo rei intellectae, quae est species intelligibilis, est forma secundum quam intellectus intelligit. . . . Sed id quod intelligitur primo, est res cuius species intelligibilis est similitudo" (*ST* 1a 85.2c). See also *SCG* II.75.1550; *InDA* III.8.239–79 [secs. 717–18]; *QDA* 2 ad 5; *QDSC* 9 ad 6.
- 6 For species as source, see, e.g., *SCG* I.53.444; *QDP* 8.1c, 9.5c; *QDV* 18.1 ad 1. For species as medium, see, e.g., *IV Sent.* 49.2.1 ad 15; *QDV* 18.1 ad 1.
- 7 "[Q]uia illud proprie videtur quod habet esse extra videntem" (*III Sent.* 14.1.2.2c).
- 8 "Species enim recepta in intellectu possibili non habet se ut quod intelligitur. . . . species coloris in oculo non est id quod videtur" (*SCG* II.75.1550).

## The official position

The external object is not only the thing seen but also the thing we see *immediately*. Aquinas rejects representationalism by giving a rather subtle analysis of what it means to cognize something immediately. The term is a relative one, he says, and so what will count as immediate for some kinds of cognition will not be immediate when it comes to cognition of another sort. God, for instance, is said to be seen immediately when his essence is actually conjoined with our mind. This is indeed immediate – the essence of the object is united with the mind of the cognizer. But Aquinas’s criterion for physical objects’ being cognized immediately is less strict:

- 6.2 Corporeal creatures are said to be seen immediately only when that which in them *can* be conjoined with sight *is* conjoined with it. But because of their materiality, they are not conjoinable through their essence, and so they are immediately seen when their *likeness* is conjoined with intellect.<sup>9</sup>

Aquinas here treats ‘immediately seen’ as relative to the nature of the object seen. Because a physical object can’t itself inform the cognizer (the stone itself isn’t in the mind), Aquinas says that the perception of an object should be counted as immediate if a likeness of the object is in the mind. The immediacy of cognition is thus relative to the object being perceived; in the case of sight, no more immediate apprehension is possible than through species, and so that kind of mediation should not be taken to show that the external world is perceived indirectly.

The analysis of 6.2 seems to rest on the following line of thinking:

1. P sees  $x$  immediately iff P sees  $x$  and there is no more immediate way in which P could see  $x$  (where P is a percipient,  $x$  an object of perception).
2. There is no more immediate way in which human beings could see external objects than through sensible species.
- ∴ 3. The external world is seen immediately when it is seen through species.

Olivi and Ockham would deny (2), we saw in Chapter 5, because each, in his own way, holds that human beings can see external objects with-

9 “Creaturae corporales non dicuntur immediate videri, nisi quando id quod in eis est coniungibile visui, ei coniungitur: non sunt autem coniungibiles per essentiam suam ratione materialitatis; et ideo tunc immediate videntur quando eorum similitudo intellectui coniungitur” (IV *Sent.* 49.2.1 ad 16). See also *QDV* 2.6c. On how the criterion changes for the immediate apprehension of God, see the body of this question and also *ST* 1a 12.9c; *Quod.* 10.8c.



out the mediation of species. Aquinas would reject their causal accounts of perception, and he takes (3) to follow from this rejection. Notice, however, that for the argument to be sound, the notion of possibility contained in the first two premises has to be interpreted in a certain way. It is (at least arguably) *logically* possible for us to see external objects without the mediation of species. So if 'could' is interpreted in (1) and (2) so as to cover logical possibilities, then Aquinas might have to deny (2) himself and be stuck with representationalism. But I suspect Aquinas doesn't think that the mere logical possibility of a more immediate form of perception of the external world is grounds for treating perception through species as mediate (i.e., indirect). For perception through species to be indirect it would have to be *possible relative to how we and the world are constituted* for the external world to be perceived more immediately. Aquinas feels confident in denying this.

The real problem with the above line of argument, however, is not modal ambiguity but the first premise. That premise acknowledges only one criterion for a perception's being indirect, namely, whether there is a more immediate way to see the same object. But one might also call a perception of the external world indirect if that perception is at the same time a perception of some other, more-immediate object. Here, then, is a second criterion for immediacy (where P is a percipient, x an object of perception):

P sees x immediately iff there is no other object y such that (a) it is in virtue of seeing y that P sees x, and (b) y is a more immediate object of sight for P than x is.

I will have more to say about this in Chapter 7; as we will see, this criterion lies at the heart of Olivi's argument against the species theory. The point I want to make in this chapter is that, if we focus on this second criterion, then it's not so clear that Aquinas has an argument against representationalism. Aquinas, at least sometimes, does seem to imply that our apprehending the external world involves a concomitant apprehension of our own internal species. It sometimes looks, in other words, as if we perceive the external world in virtue of apprehending species. This is the act-object doctrine.

## 2. THE ACT-OBJECT DOCTRINE

We have seen a number of respects in which Aquinas's theory of cognition is more sophisticated than it might superficially seem. Despite his talk of species as likenesses, we saw in Chapter 3 that he is by no means

committed to a simplistic resemblance theory of mental representation. And we saw in Chapter 5 that his species can be viewed in the context of his Aristotelian metaphysics and identified as forms not free-floating inner representations. Both of these accounts put Aquinas in a good position to resist both representationalism and the act-object doctrine. He can insist that species play their role in bringing about an act of cognition with a certain intentional content without ever themselves being apprehended in anything like the way external objects are apprehended. This line would allow Aquinas to maintain, unqualifiedly, his official position. But I've been calling this Aquinas's official position because there are many discussions that either contradict this official position or suggest that it can be defended in at best a qualified manner. I will argue for this conclusion along three different lines. First, I will consider a number of passages in which Aquinas seems to embrace the act-object doctrine unreservedly. Interestingly, however, almost all of these passages come from Aquinas's early writings, either the *Sentences* commentary or the *De veritate*.<sup>10</sup> So my second line of argument is to show that even in Aquinas's mature works, such as his *Summa theologiae*, he never rejects the act-object doctrine, even in places that might be taken to have precisely this aim. Third, I will offer an interpretation of Aquinas's "official view" that shows how he can accept the act-object doctrine and still insist, resolutely, that representationalism is false.

As evidence for the first line of argument, we can start with the following passage:

6.3 It should be known, nevertheless, that a thing is said to be intellectually cognized in two ways, just as is a thing seen. For there is a *first thing seen*, which is a species of the visible thing existing in the pupil, which is also the completion of the one seeing and the source of vision and the intermediary light<sup>11</sup> of the visible thing. And there is a *second thing seen*, which is the thing itself outside the soul.

Likewise, the *first thing intellectually cognized* is the likeness of the thing, in intellect, and the *second thing intellectually cognized* is the thing itself, which is intellectually cognized through that likeness.<sup>12</sup>

10 The *Sentences* commentary was composed from 1253 to 1256. *QDV* was disputed from 1256 to 1259. (The first part of *ST*, in contrast, was written from 1266 to 1268, at the same time as the *De anima* commentary.)

11 The Vivès edition of 1871–82 has "medium nomen" (intermediary name). There is no critical edition.

12 "Sciendum tamen est, quod intellectum dupliciter dicitur, sicut visum etiam. Est enim primum visum quod est ipsa species rei visibilis in pupilla existens, quae est

Here Aquinas seems perfectly willing to grant not just the act–object doctrine but also representationalism. The species is seen and intellectually cognized – indeed, it is the *first* thing cognized. That, I take it, is just another way of saying that the species is cognized immediately. What are we to make of this passage? One uncontroversial thing that can be said is that 6.3 does not accord *terminologically* with Aquinas’s mature work. This passage, from the earliest part of the *Sentences* commentary (his earliest major work), seems to be the only place where he calls the species the *primum visum* or *primum intellectum*. On his considered view, as we’ve seen, it is the external thing, not the species, that is seen and intellectually cognized. Indeed, he often claims that it is the external object that is cognized first, *per se*, and immediately – for instance, in the first part of the *Summa theologiae*: “That which is intellectually cognized *first* is the thing the intelligible species is a likeness of” (6.1); “The external impression is what is perceived *per se* by a sense.”<sup>13</sup> (Aquinas does say in the third part of the *Summa theologiae* that “the final aim of the intellective power is not to cognize phantasms but to cognize *intelligible species*.”<sup>14</sup> But I am willing to grant that this is merely a slip on his part.)

Although we can easily admit that 6.3 is terminologically deviant, it is less clear what the implications of the passage are. One way of explaining the passage is to think of it as a dangerous step down the slippery slope of representationalism, but a step that the more-mature Aquinas quickly retracts. If one wants to credit him with what I’ve been calling a sophisticated version of the species theory, then this is one possible reaction. One would admit that this early passage makes the twin mistakes of (1) reifying species, by treating them as the sorts of things that can themselves be cognized, and (2) encouraging the supposition that species are literally likenesses of the external world, able to be perceived and understood by some inner audience. But the mature Aquinas, one would insist, makes no such mistake.

etiam perfectio videntis, et principium visionis, et medium lumen rei visibilis. Et est visum secundum, quod est ipsa res extra animam. Similiter intellectum primum est ipsa rei similitudo, quae est in intellectu et est intellectum secundum ipsa res, quae per similitudinem illam intelligitur” (I *Sent.* 35.1.2c).

13 “Exterius ergo immutativum est quod per se a sensu percipitur” (ST 1a 78.3c). See also QDV 10.4c; QDP 7.9c; ST 1a 12.9c, 87.3c; InDA III.1.166–71 [sec. 577]; IV *Sent.* 49.2.1 ad 16, 49.2.7 ad 6; *Quod.* 7.1.1c.

14 “Manifestum est enim quod finis potentiae visivae est cognoscere colores: finis autem potentiae intellectivae non est cognoscere phantasmata, sed cognoscere species intelligibiles” (ST 3a 11.2 ad 1). The Marietti editors confidently remark in a footnote to the text, “Species hic ponitur pro rebus per eam repraesentatis.”

If 6.3 were an isolated passage, then this would surely be a reasonable view: not just because it gives Aquinas a more sophisticated philosophical position but also (and more important) because there are so many places where he seems to assert precisely 6.3's opposite. But although this is the only passage I know of in which he seems to embrace representationalism, there are a number of other places where he seems to give an act-object analysis of cognition. In these other passages he never calls into question that it is the external world that is *cognized* directly, whether by sense or intellect. But he seems to explain this cognition of an external object in terms of an apprehension relationship between the cognizer and the species representing that object.

One passage in which this point is particularly clear comes from an early article in the disputed questions *De veritate*. Here Aquinas divides sensory operations into two kinds: judgment and apprehension. Apprehension, he makes clear, is just the ordinary activity of the senses – their ordinary seeing, hearing, and so on.<sup>15</sup> But look at the way he characterizes this activity:

6.4 But with respect to the apprehension of sense, it should be known that there is one kind of apprehensive force that *apprehends the sensible species* when the sensible thing is present – that is, the sense proper – and another that apprehends it [the species] when the thing is absent – that is, imagination.<sup>16</sup>

This passage is just Aquinas's straightforward characterization of how apprehension takes place. Apprehending the sensible species, here, doesn't seem to be something that the senses do *in addition* to apprehending the external object. Rather, the external object seems to be apprehended in virtue of apprehending the sensible species. If so, then this would be a paradigm case of an act-object analysis of perception.

As we will see Henry of Ghent do in Chapter 7, Aquinas seems to distinguish two different kinds of perceptions: one internal, the other external. A possibility we need to consider, however, is that 6.4's talk of apprehending the sensible species is not meant to suggest a cognitive relationship between the sensory power and the species as object. Apprehending, at least here, may be a merely causal relationship. Whereas the English verb 'apprehend' has cognitive implications similar to 'per-

15 See Ch. 4, sec. 3.1 for a more detailed discussion of apprehension. There I give a stronger textual basis for thinking that apprehension is just our ordinary sort of seeing and hearing.

16 "Sed circa apprehensionem sensus sciendum est quod est quaedam vis apprehensiva quae apprehendit speciem sensibilem sensibili re praesente, sicut sensus proprius, quaedam vero quae apprehendit eam re absente, sicut imaginatio" (QDV 1.11c).

ceive,' this is not necessarily the case for the Latin *apprehendere*, which in one sense means to grasp and need have no cognitive implications. Apprehending, therefore, could for Aquinas be a purely causal, subcognitive relationship between species and cognitive faculty.

This line of interpretation doesn't seem very plausible, however. Recall that 6.4 is meant as an explanation of sensory apprehending, which is the name Aquinas gives in that passage to the ordinary seeing, hearing, and so on, of external objects. But it would have been extremely careless for him to use 'apprehension of sense' in the first line of 6.4 to refer to our ordinary perceptual operations and then later in that sentence to use 'apprehends the sensible species' without any cognitive implications. If Aquinas is using 'apprehend' in the latter case to mean a causal relationship, then one would expect him to use it that way throughout the sentence. But the notion of apprehension he is explicating in this passage is a manifestly cognitive one.

It is less surprising that, in 6.4, Aquinas speaks of imagination's apprehending species. In general, when there is no external object to be grasped, as in the case of memory and imagination, Aquinas has no qualms about saying that we apprehend our own species.<sup>17</sup> Moreover, when he turns from apprehension of the external world to apprehension of our own internal states, then, too, the species is a cognitive object. Normally, what we see are colors, and what we intellectually cognize are the quiddities in things. But when we reflect on ourselves, this is no longer the case. Then the species becomes the thing that is cognized, and we cognize both the species and, thereby, the act of cognition itself. "Secondarily," Aquinas says, "the intelligible species is the thing that is intellectually cognized."<sup>18</sup> At least in some cases, then,

17 See *InDMR* 3.143–226 [secs. 338–43]; *QDV* 19.1c; *InJoh.* XIII.1.1742.

18 "Sed quia intellectus supra seipsum reflectitur, secundum eandem reflexionem intelligit et suum intelligere, et speciem qua intelligit. Et sic *species intellectiva secundario est id quod intelligitur*" (*ST* 1a 85.2c); cf. *InDA* III.8.269–74 [sec. 718]: "Quod autem videtur est color, qui est in corpore; similiter quod intellectus intelligit est quidditas, quae est in rebus; non autem species intelligibilis, nisi in quantum intellectus in seipsum reflectitur."

Putallaz (1991) reads Aquinas quite differently. Putallaz holds, first, that in these cases of reflection "il n'y a qu'une opération qui atteint à la fois la *species* et l'acte, puisque la *species* de la chose extramentale est identiquement l'acte, ou l'exercice vivant de l'intellect" (p. 160). This identity of species and act is an attractive doctrine to find in Aquinas, as we saw in Chapter 5, but one that finds little support in the texts. As evidence for this claim, Putallaz cites only the *ST* passage just quoted, which does nothing to support his case.

Second, Putallaz denies that the species or act is the object of reflective cognition:

the species is an object of cognition. But holding an act-object analysis of introspection by no means commits Aquinas to giving the same analysis of ordinary perception and cognition. Even if species are the objects of introspective cognition or of memory and imagination, they need not be the objects of our cognition of the external world.

When it comes to ordinary perception of the external world, Aquinas leaves no doubt that our knowledge is noninferential. He certainly doesn't think that we make an inference from the way our sensible species are (how things seem to us) to the way the external world is. He says, for instance, that there is no inference "when the thing itself is apprehended through its likeness. For in that way even the eye seeing the stone would have an inferred cognition of it."<sup>19</sup> So even if Aquinas does in some way think that we perceive the external world in virtue of perceiving our internal species, he shows no signs of thinking that we make an inference of any kind, conscious or not, from our own state to the external world's state. Such a result would be absurd, he clearly thinks. Elsewhere, he says that "someone is not said to infer because he cognizes an [external] thing through the thing's species that he has within himself." This is what we would expect him to say. But the passage is especially interesting because he takes it to follow from another claim: "In the case of a cognitive power, there is a single conversion to the thing's species and to the thing itself. Hence, someone is not said to infer. . . ." <sup>20</sup> This passage, too, shows Aquinas to be committed to the act-object doctrine. Our conversion to the thing itself, which, as we saw in Chapter 4, seems to mean our attending to the external object, is *the same* as our conversion to the internal species of the object. It's important to Aquinas here to emphasize that this is a single act, because he wants to conclude that we don't make an inference from one

[C]ontrairement à ce qui se passe pour l'analyse générale de la pensée, la réflexion ne pose pas son terme comme ob-ject: le soi n'est pas objectivé dans cet acte. L'opération réflexive n'est pas un savoir au sens où un ob-ject nouveau lui serait donné; il est un savoir particulier par lequel l'homme «voit» intellectuellement son acte (p. 161).

No good evidence, textual or otherwise, is advanced for this claim. Moreover, at the passage's end, Putallaz is betrayed by his own metaphor. To see intellectually implies that there is an object seen – even if this seeing is within scare-quotes.

- 19 "Cognitio discursiva est quando ex prius notis in ignotum devenitur, et non quando per similitudinem rei apprehenditur res ipsa: quia sic etiam oculus videns lapidem haberet cognitionem collativam de ipso (I *Sent.* 36.2.1 ad 4). Cf. III *Sent.* 23.1.2c.
- 20 "Virtutis cognoscitivae est una conversio in speciem rei et in rem ipsam; unde ex hoc quod aliquis per speciem rei quam apud se habet rem illam cognoscit, non dicitur conferre . . ." (II *Sent.* 4.1.1 ad 4).

to the other. Nevertheless, by way of reaching this conclusion, he treats species as objects to which we turn our cognitive attention.

If this is the way Aquinas conceives of perception, then representationalism seems to be just around the corner. So it's interesting to find him explicitly rejecting representationalism within the context of this notion of a "conversion to species." Consider the following passage:

- 6.5 Even when something is seen through the likeness of another thing, it can still happen that one seeing the thing through the medium considers the thing immediately, without its cognition being turned toward anything else.<sup>21</sup>

This passage is not addressed specifically to cognition through species but to seeing images in general. But it would seem, from the context, that Aquinas means sensible species to be included among the sorts of likenesses being discussed. It seems, then, that this is some sort of rejection of representationalism. Even though we see the external object through species, we still *consider* that object immediately. But look at the way Aquinas goes on to justify this claim:

- 6.6 For [its cognition] is not turned to that medium as it is a thing of some sort, but as it is an image of the thing cognized through it. Intellect's movement to the image qua image, however, *is the same* as its movement to the thing depicted [*imaginatum*] – although intellect's movement to the image qua thing of some sort is different from its movement to what it is an image of.<sup>22</sup>

Here Aquinas distinguishes two cases: one in which we turn to the medium as a thing of some sort, another in which we turn to the medium as an image of something else. The first case corresponds to introspection, the second to ordinary cognition of the external world.

21 "Etiam quando aliquid videtur per similitudinem alterius rei, potest contingere quod videns rem per medium, cogitet de re immediate sine hoc quod eius cognitio convertitur ad aliquam aliam rem" (IV *Sent.* 49.2.7 ad 8).

22 "[Q]uia in illud medium non convertitur ut est res quaedam, sed ut imago illius rei quae per ipsam cognoscitur. Idem autem est motus intellectus in imaginem in quantum est imago, et in imaginatum; quamvis alius motus sit intellectus in imaginem in quantum est res quaedam, et in id cuius est imago" (ibid.). This distinction comes from Aristotle's *De memoria* ch.1 (450b23–451a2). See Aquinas's discussion at *InDMR* 3.143–226 [secs. 338–43], where he takes the distinction to explain the difference between the operations of memory and phantasia. See also *ST* 3a 25.3c, which uses the distinction to explain how it is proper for Christians to adore physical images of Christ.

The striking feature of this passage is that, in each case, the cognition is produced by what he characterizes as a turning toward or movement toward the medium. Intellect's moving to the image "*is the same* as its movement to the thing depicted" (6.6). The difference between introspection and perception lies in the way we view the medium: either "qua image," or "qua thing of some sort." The apprehension of something through an image is nothing more than a "movement to the image" in a certain way. These passages raise renewed questions about whether Aquinas is truly committed to the passivity of cognition. I suppose that here, just as in Chapter 4, we can continue to understand this movement toward the image as a matter of the sense's being acted on. But, passive or not, cognition now seems to involve some attention toward our internal images.

Aquinas makes similar claims in other passages as well, specifically applying the account to both intellective and sensory cognition. When one turns to a species qua species of another thing, "then it is *the same* to turn to the thing and to the species of the thing."<sup>23</sup> Drawing his distinction between ways of turning to images, he compares the difference to "when someone considers an image qua stone body, and qua likeness of Socrates or Plato."<sup>24</sup> Elsewhere, drawing a parallel distinction, he speaks of intellect's considering the species as a likeness: "in this way intellect's consideration doesn't stop at the species, but through the species passes to the thing of which it is a likeness – just as the eye sees a stone through the species that is in the pupil."<sup>25</sup> These passages wouldn't be surprising as a general account of signs or images. What is noteworthy is that they show how Aquinas conceives of ordinary cognition. Ordinary cognition just is a way of considering our internal images.

Once again, the proponent of the sophisticated reading can reply by denying that Aquinas means 'turning to' and 'moving to' to entail a cognitive relationship between the cognitive faculty and the species. To

23 "[Q]uia in speciem vel in imaginem contingit fieri conversionem dupliciter: vel secundum quod est species talis rei, et tunc est eadem conversio in rem et speciem rei" (I *Sent.* 27.2.3c).

24 "[S]icut quando aliquis considerat imaginem in quantum est corpus lapideum, et in quantum est similitudo Socratis vel Platonis" (ibid.).

25 "Potest enim intellectus converti ad speciem quam apud se habet dupliciter: aut considerando ipsam secundum quod est ens quoddam in intellectu . . . aut secundum quod est similitudo rei, et sic intellectus consideratio non sistit in specie, sed per speciem transit in rem, cuius similitudo est; sicut oculos per speciem quae est in pupilla videt lapidem" (II *Sent.* 12.1.3 ad 5).



turn or move to the species, one might argue, is just a reference to the causal contact that of course must be present if species are to do their work. Such a view is hard to maintain in light of the last passage, given Aquinas's talk of "considering species." In any case, this reply seems no more plausible here than it did in the case of 6.4. Just as Aquinas gave an analysis there of apprehending the external world in terms of apprehending species, here he gives an analysis of intellect's moving to depicted objects in terms of moving to their images. Presumably, by 'moving to depicted objects,' a cognitive relationship is meant. But then it seems that we must interpret 'moving to images' as cognitive as well. Species, once again, seem to be the objects of apprehension.

Still, one might suppose that all of these passages should be taken as mere metaphor. Might all of this talk of turning toward, moving to, apprehending, and even seeing species be merely convenient (albeit potentially misleading) shorthand for the familiar Aristotelian doctrine that our cognitive faculties *take on* species?<sup>26</sup> This reply would, I concede, be tempting if we had independent reason to think Aquinas rejects the act-object doctrine. But, as I will go on to argue, Aquinas never does reject that doctrine. Texts that might seem incompatible with a literal reading of 6.4–6.6 are in fact perfectly consistent with these passages. There is nothing in Aquinas's corpus that forces us toward a metaphorical reading here.

Moreover, there is scarce comfort in being told that Aquinas is speaking metaphorically. It is no small part of philosophical work on the mind to get clear about what the right sorts of metaphors and pictures are. As I discuss at the beginning of this chapter, the act-object doctrine may at bottom be nothing more than a misleading picture of the mind's operation. So even if Aquinas is speaking metaphorically, I would still maintain that this is a metaphor to which he is committed and which (as we will see) he never rejects. For a supposed proponent of the sophisticated theory of cognition, then, Aquinas seems remarkably ambivalent.

We should, therefore, look at his official position in a new light. As quoted already, he says, "what is seen, strictly, is what has existence outside the one seeing" (n. 7). I propose that we emphasize the word 'strictly.' With that qualification, Aquinas is allowing that there is some sense in which a species *is* the *primum visum* (6.3) or, more standardly, the thing apprehended (6.4). It is only when speaking strictly that one shouldn't call species the things seen or cognized. As to why we shouldn't say this, when speaking strictly, we have yet to find out.

26 I owe this line of reply to Scott MacDonald.

### 3. TWO VERSIONS OF REPRESENTATIONALISM

Perhaps the best reply that a proponent of the sophisticated reading can make to the passages I've been discussing is to hold that they do not reflect Aquinas's mature theory. All of the passages I've quoted come from Aquinas's earliest works, and there is little in his later writings that directly supports these early texts. The least I would want to claim at this point is that Aquinas began his career by being committed to the act-object doctrine. But if some later shift in his thought took place on this topic, then one would expect to find not just that he stopped speaking in the old way but that he began explicitly to reject accounts on which species are the internal objects of cognition. One would expect to find, in other words, some positive evidence that he no longer held the act-object doctrine. I can't find any such evidence; this is my second line of argument. If we look closely at the places where Aquinas seems to be denying that species are the objects of cognition, it becomes clear that it is not the act-object doctrine that he is denying at all, nor even representationalism as I have been conceiving of it.

We can see this by looking at the classic statement of his official position, in the first part of the *Summa theologiae*, where he asks whether intelligible species are the things that intellect cognizes (q. 85 a. 2). His answer is negative: species are not the things cognized. Here, if anywhere, one would expect a clear rejection of the act-object doctrine and representationalism. But a close look at this article shows that Aquinas isn't arguing against either of these positions but against a kind of idealism. He begins his reply to the question by noting that some had claimed that the only things perceived are the states of one's own senses, and that the only things intellectually cognized are intelligible species. "But this opinion appears obviously false," Aquinas says, for two reasons. First, what we intellectually cognize is what we have scientific knowledge of. So if it were species that were intellectually cognized, then scientific knowledge wouldn't be about the external world but about species in our soul. This, Aquinas takes it, is plainly false.<sup>27</sup> His second objection is that it would entail a kind of Protagorean relativism, because all cognitive judgments would be true. If all one cognizes are the states of one's own sense organs, then that is all one will

27 "Sed haec opinio manifeste apparet falsa ex duobus. Primo quidem, quia eadem sunt quae intelligimus, et de quibus sunt scientiae. Si igitur ea quae intelligimus essent solum species quae sunt in anima, sequeretur quod scientiae omnes non essent de rebus quae sunt extra animam, sed solum de speciebus intelligibilibus quae sunt in anima" (ST 1a 85.2c). See also SCG II.75.1550.

make judgments about. But, because we don't err about judgments of this sort, all judgment will be true. Everyone's opinion, then, will be equally true. This, too, is plainly false.<sup>28</sup>

If we consider these two arguments carefully, it becomes obvious that it isn't representationalism or the act-object doctrine that Aquinas is concerned with arguing against. Instead, the position both replies are effective against is that knowledge claims and, more generally, judgment or belief claims should be analyzed as claims about one's inner states. Indeed, Aquinas makes it clear at the beginning of the article that these two arguments are directed at the view that *only* species are apprehended. Such a view is far more radical than what I've been calling representationalism; we might call it *representational idealism* (Rep<sub>i</sub>). According to Rep<sub>i</sub>, knowledge claims wouldn't be about the external world at all; they'd be about ourselves. And claims like 'honey is bitter' would be true or false according to how it seems to the one making the judgment. Hence, for one person, it may be true that honey is bitter. For another, it may be false that honey is bitter. The consequence, as Aquinas notes, is a violation of the principle of noncontradiction: "contradictory claims would be true at the same time" (n. 28).

Both of Aquinas's arguments are therefore effective against Rep<sub>i</sub> (assuming one agrees with Aquinas that the results are obviously false). But the argument has nothing to say against the act-object doctrine nor against the more-plausible realist form of representationalism: *representational realism* (Rep<sub>r</sub>). Rep<sub>r</sub> does not hold that the *only* things we apprehend are species, so Rep<sub>r</sub> does not deny either that knowledge and belief claims are true or false in virtue of the external world, or that if we have the kind of knowledge we think we do, it is knowledge of the external world. Rep<sub>r</sub> makes no controversial semantic claims about either the referents or the truth values of knowledge and belief. But Rep<sub>r</sub>, like Rep<sub>i</sub>, does maintain that it is species (or representations, etc.) that we *directly* apprehend and that we never directly apprehend external objects. (Crathorn, as we will see in Ch. 7, is an example of someone who holds Rep<sub>r</sub> but not Rep<sub>i</sub>.) Now, perhaps Rep<sub>r</sub> entails Rep<sub>i</sub>, so that a refutation of the latter would constitute a refutation of the former. But this is surely an implausible claim, one which Aquinas would need an

28 "Secundo, quia sequeretur error antiquorum dicentium quod omne quod videtur est verum; et sic quod contradictoriae essent simul verae. Si enim potentia non cognoscit nisi propriam passionem, de ea solum iudicat. Sic autem videtur aliquid, secundum quod potentia cognoscitiva afficitur. Semper ergo iudicium potentiae cognoscitivae erit de eo quod iudicat, scilicet de propria passione, secundum quod est; et ita omne iudicium erit verum" (ST 1a 85.2c).

argument for. And so far he has had nothing to say about this friendlier kind of representationalism, stripped of the implausible semantic claims and based on the act-object doctrine.

Aquinas immediately continues the article's reply by claiming,

- 6.7 And hence it should be said that intelligible species are related to intellect as that by which intellect cognizes.<sup>29</sup>

In asserting this, he seems to suppose it nailed down that species are not themselves cognized and that their role must therefore be to serve "as that by which intellect cognizes." It is surprising to see him reaching this conclusion so quickly, because he so far seems entitled to no such claim: so far, he just rejects that part of Rep<sub>i</sub> that is also rejected by Rep<sub>r</sub> – that species are the *only* things apprehended. But he immediately goes on to argue for 6.7 in a more direct manner, saying that 6.7 "is clear in this way":

- 6.8 Action is of two kinds, as is said in *Metaphysics* ix, one that remains in the agent (seeing and intellectually cognizing, for instance) and one that passes to external things (heating and cutting, for instance). Each is brought about in virtue of some form.<sup>30</sup>

The point he wants to make with this comparison is that just as heat is the form *in virtue of which* a thing is heated, so too sensible and intelligible species are the forms *in virtue of which* we cognize. But all this comparison seems to show is that species, as forms of the cognitive powers, play a certain causal role in producing a cognitive act with a certain content. There is nothing in these considerations to refute the further claim of Rep<sub>r</sub> that species are the immediate objects of cognition. The conclusion he draws from the argument seems to acknowledge as much, for he says, "the likeness of a visible thing is that *in virtue of which* sight sees, and the likeness of an intellectually cognized thing, an intelligible species, is the form *in virtue of which* intellect cognizes" (6.1). This claim attributes to species a certain causal role. But it doesn't rule out that that causal role might be brought about by species themselves being, in a certain sense, apprehended.

This point can be seen even more clearly in a different passage, in which Aquinas uses the same line of argument. An intelligible species, he says, "is precognized by intellect in advance of its two operations" –

29 "Et ideo dicendum est quod species intelligibilis se habet ad intellectum ut quo intelligit intellectus" (ST 1a 85.2c).

30 "[S]it duplex actio, sicut dicitur IX *Metaphys.*, una quae manet in agente, ut videre et intelligere, altera quae transit in rem exteriorem, ut calefacere et secare; utraque fit secundum aliquam formam" (ibid.).

that is, in advance of (1) the apprehension of quiddities and (2) compounding and dividing. This must be the case, he says, because it is by means of an intelligible species that intellect is brought to actuality and thereby engages in its operations. The same is the case for sensible species, he adds. On this basis, he concludes, “hence a visible species is not that which is seen but is that by which something is seen. And it is the same for the possible intellect.”<sup>31</sup> If this means that the species is not in any sense an object of cognition, then it is hard to see how he could be entitled to such a conclusion. Indeed, his premise for his conclusion was that the species is precognized (*praeintelligitur*), in advance of certain later operations. How can he conclude from such a premise that species aren’t themselves apprehended? To be sure, it’s not clear what he means here by ‘precognized,’ and we shouldn’t assume that precognition is a form of cognition. But surely neither is one entitled to conclude from such a premise that species are *not* in any sense cognized. The most he is entitled to conclude is that species play a certain causal role: that the presence of species is a prerequisite for certain later operations. If there are good reasons for saying that only those later operations should count as cognitive, we have yet to see them. (This will be the aim of sec. 4.)

The situation is the same in question 85 of the *Summa*. Nowhere in the article we’ve been considering, so far as I can see, does Aquinas refute the act–object doctrine, and it is not even clear how Rep<sub>r</sub> might be refuted. He certainly thinks he has refuted the latter; in the end, he gives a negative answer to the question of the article, asserting that “that which is intellectually cognized first is the thing of which the intelligible species is a likeness” (6.1). But he has not shown that external objects are cognized first. Nor has he shown that species are not, in normal cases, themselves cognized. All he has shown is that (a) the semantic theses of Rep<sub>i</sub> have implausible implications and (b) species play a certain causal role in the cognitive process. The central claims of the act–object doctrine and representationalism remain unchallenged. So even in this classic, mature statement of Aquinas’s species theory, there is no evidence that he rejects the act–object doctrine. Worse yet, it is not even clear that he is warranted in rejecting a plausible version of representationalism. And although there are other places where

31 “Utrique autem harum operationum praeintelligitur species intelligibilis, qua fit intellectus possibilis in actu; quia intellectus possibilis non operatur nisi secundum quod est in actu, sicut nec visus videt nisi per hoc quod est factus in actu per speciem visibilem. Unde species visibilis non se habet ut quod videtur, sed ut quo videtur. Et simile est de intellectu possibili” (QDSC 9 ad 6).

Aquinas echoes the arguments we've just considered,<sup>32</sup> I can't find a passage in which he does any better than what we have just seen.

In a way, however, this section has proved too much. It now seems as if Aquinas fails to reject not only the act-object doctrine but also representationalism. This raises a serious problem: what are we to make of his frequent assertions that species are not ordinarily cognized and that it is the external world that is cognized first, immediately, and per se (n. 13)? Although we cannot give these passages the meaning that the sophisticated reading would demand, we can, all the same, make perfectly good sense of these claims. Section 4 advances my third line of argument, showing how we can read Aquinas as simultaneously accepting the act-object doctrine and rejecting all forms of representationalism.

#### 4. THROUGH THE SPECIES AND TO THE WORLD

In section 1 we saw how Aquinas would respond to a certain kind of argument for representationalism, one that claims that an object is seen immediately if and only if there is no more immediate way in which that object could be seen. Aquinas denies that there is any more immediate way in which we can see the external world than through species. But, as I noted in concluding that section, his argument in 6.2 doesn't show how he could reply to a more powerful kind of argument for that same conclusion, one based on a second criterion for immediacy:

P sees *x* immediately iff there is no other object *y* such that (a) it is in virtue of seeing *y* that P sees *x*, and (b) *y* is a more immediate object of sight for P than *x* is.

If the conclusion of the last two sections is right, and Aquinas is committed to an act-object analysis of cognition, then he will be especially vulnerable to this more powerful argument for representationalism. The act-object doctrine has it that one who sees the external world also sees species at the same time or, at least, apprehends species in some manner. Further, on this doctrine, it is in virtue of apprehending such species that the external world is perceived. But if this is right, then it would seem, even if we can't give a systematic account of what we mean by 'immediately' or 'mediately,' that species are the things apprehended immediately, leaving the external world to be perceived indirectly.

32 See, e.g., *InDA* III.8.264–79 [sec. 718]; *SCG* II.75.1550; *DUI* 5.186–206 [sec. 110].

Aquinas has several ways of blocking this conclusion, and in the end it will turn out that he is perfectly warranted in rejecting certain forms of representationalism, both Rep<sub>i</sub> and Rep<sub>r</sub>, even if he does accept the act-object doctrine. One move I find him making, although it doesn't go very far, is to claim that it is an abuse of ordinary language to say that we see, perceive, or intellectually cognize species. An instance of his appealing in this way to the proper use of language comes when he discusses the hallucinations of the mentally ill. When we speak of such cases, Aquinas says, "we don't say that . . . [they] truly sense [their delusions], but that it seems to them that they sense [such things]." The reason we don't talk this way, he explains, is that "in the case of the external senses the proper agent is the thing existing outside the soul, and not its intention existing in the imagination or reason."<sup>33</sup> So in cases in which it's not an external object that is the cause of perception, it's a misuse of language to speak of *sensing*. This passage does not explicitly reject representationalism but only the claim that we truly sense internal images not caused by an external object. This illustrates, however, the first kind of reply that Aquinas can make to the representationalist: we do not, in ordinary cases, truly and strictly perceive our own sensations. Verbs of perceiving and cognizing take only items in the external world as their objects. This, perhaps, is the thought behind the remark I've quoted several times already: "what is seen, strictly, is what has existence outside the one seeing" (n. 7).

If this were the only reply Aquinas had to the representationalist, we might rightly feel let down. Appealing to language on this question seems for the most part to evade the real issue, which is whether species, in the ordinary case of our cognition of the external world, should be conceived of as the immediate objects of some sort of cognitive apprehension. Ordinary language simply may not give us any insight into the function of our inner sensations (i.e., species); it may be that even if we don't ordinarily speak of our inner sensations themselves being seen, heard, and so on, there is nevertheless good reason why philosophers should speak that way. If representationalism is to be rejected, we would like to have a principled reason why that way of speaking is mistaken.

33 "Unde cum proprium activum in sensu exteriori sit res existens extra animam, et non intentio eius existens in imaginatione vel ratione; si organum sentiendi non moveatur a rebus extra, sed ex imaginatione, vel aliis superioribus viribus, non erit vere sentire. Unde non dicimus quod phrenetici et alii mente capti . . . vere sentiant, sed quod videtur eis quod sentiant" (IV *Sent.* 44.2.1.3c).

I think that this is just what Aquinas gives us in a number of places. In one of his *Quodlibetal Questions*, for instance, he distinguishes three ways in which cognition is mediated: (1) by an illuminating light (either the agent intellect or the sun); (2) by a species; and (3) by either an inference of intellect (e.g., from an effect to a cause) or the reflection of a sensible object (e.g., seeing something in a mirror). The third kind of mediation does make cognition indirect. But the first two, he says, do not:

- 6.9 Therefore, the first medium and the second do not make vision mediated. For someone is said to see a stone immediately, even though he sees it through its species received in the eye and through light, because sight is not drawn to these media as to visible things, but through these media is drawn to one visible thing, which is outside the eye.<sup>34</sup>

Notice the crucial explanatory clause: the reason someone is still said to see the external object immediately, even if that object is seen through a species, is that sight is *drawn* to the external object not to the medium. Elsewhere, he gives the same reason external objects are the things intellect cognizes first: "the things intellectually cognized first are things outside the soul, to whose intellectual cognition intellect is first drawn."<sup>35</sup> The second part of this sentence, as I read it, justifies the first, so that the reason intellect is said to cognize things outside the soul first is that it is drawn first to those things. Elsewhere, he makes a similar claim, using slightly different terminology:

- 6.10 The regard of the one having the intellectual cognition first attains the intellectually cognized thing of which the species through which it is cognized is a proper likeness. Now the species through which our intellect cognizes is a likeness of the external real thing that is intellectually cognized, and hence [the external thing] is the first thing intellectually cognized primarily.<sup>36</sup>

34 "Primum ergo medium et secundum non faciunt mediatam visionem; immediate enim dicitur aliquis videre lapidem, quamvis eum per speciem eius in oculo receptam et per lumen videat: quia visus non fertur in haec media tamquam in visibilia, sed per haec media fertur in unum visibile, quod est extra oculum" (*Quod.* 7.1.1c). See also *IV Sent.* 49.2.1 ad 15; *QDV* 18.1 ad 1.

35 "Prima enim intellecta sunt res extra animam, in quae primo intellectus intelligenda refertur" (*QDP* 7.9c).

36 "Ad illud intellectum primo respectus intelligentis consequitur cuius species per quam intelligitur est propria similitudo. Species autem per quam intellectus noster intelligit, est similitudo rei exterioris intellectae, unde primo prima intelligitur." This is taken from the first discarded version of *SCG* I.53, in appendix II.8 of the 1961–67 Marietti edition.



The conclusion of the passage is that the external object is the first thing cognized by intellect. But the reason given for this conclusion is that the external thing is what the cognizer's "regard . . . first attains."

But what does Aquinas mean, in these passages, by saying that the senses and intellect first attain and are first drawn to external objects, not to species? These had better not be nothing more than obscure ways of saying that the external world is seen or understood first. (That, of course, is the claim we are trying to justify in the first place.) To avoid making Aquinas's account circular, we need an explanation of these passages that doesn't just explain 'first attains' and 'first drawn to' in terms of first perceiving and intellectually cognizing. What I suggest fits the bill is an analysis in terms of beliefs and judgments. Sight or intellect is drawn to external objects insofar as it is drawn to producing judgments and forming concepts about the external object. When Aquinas says that "those things are said to be seen that, through themselves, move our intellect or senses to a cognition of them,"<sup>37</sup> I would understand this as meaning that those things are seen that move us to form thoughts and beliefs about them. So the reason that the external world is rightly said to be the thing perceived and cognized is that it is the external world that we (ordinarily) come to have beliefs about on the basis of our cognitions. When Aquinas claims, in 6.9, that sight is not drawn to species as visible things but is drawn to the external world, this should be understood as meaning that it is the external world that the senses form beliefs and judgments about.

Instead of resting on the conventions of language, this line of argument is based on facts about us as cognitive beings. It is a matter of how our cognitive powers function that we are rightly said to cognize the external world, not our internal impressions:

6.11 The force of every power of the soul is determined to its object; hence, its action tends first and principally to its object. But it cannot tend to those things by which it is directed to the object except through a kind of return. So we see that sight is first directed to color, but it is not directed to the act of its vision except through a kind of return, when in seeing color it sees that it sees.<sup>38</sup>

37 "Illa autem videri dicuntur quae per seipsa movent intellectum nostrum vel sensum ad sui cognitionem" (*ST* 2a2ae 1.4c). Cf. Gilson (1956): "The expression 'that which is primarily understood is the thing' signifies therefore that thought first forms the concept of the object" (p. 233).

38 "Cuiuslibet potentiae animae virtus est determinata ad obiectum suum; unde et eius actio primo et principaliter in obiectum tendit. In ea vero quibus in obiectum dirigitur non potest nisi per quamdam reditionem, sicut videmus quod visus primo

The point here is that we are cognitively determined to forming thoughts and judgments about the external world. It is only through a self-conscious, reflexive attention to ourselves that a cognitive power is able to treat its inner states – in 6.11, “the things by which it is directed to the object” – as themselves the objects of cognition. We see the external world and not species, therefore, not because it goes against the conventions of language to speak of seeing our internal states but because Aquinas takes it that the cognition of an object entails the formation of beliefs about that object. And however species may mediate our cognitive processes, they are certainly not (in ordinary cases) the things we form beliefs and thoughts about.<sup>39</sup>

One further place where Aquinas seems to employ this line of thought is in his *De anima* commentary. In *De anima* ii.10, Aristotle argues that touch and taste are not mediated by an external medium in the way that sight, smell, and hearing are mediated by air and water. But at 422a11–17, Aristotle considers a case that draws into question this uncontroversial-looking claim. Imagine we lived in water, not air; if something sweet were dropped into the water we would taste it. Wouldn't this be a case in which taste is mediated in the way that sight, for instance, is? Aristotle argues that the cases are not parallel: sight is mediated by the intervening air, but taste is not mediated, even in the imagined scenario. It's not clear, however, why Aristotle insists on a difference here. Aquinas, in commenting on this passage, offers an explanation. In the imagined case, he says, “taste perceives the distant body's flavor not *as* it is the flavor of such a body, but *as* it is [the flavor] of the water altered by such a body.” In the case of vision, in contrast, “sight does not perceive color *as* belonging to the air or to the water, but *as* belonging to the distant colored body.”<sup>40</sup> The difference, in other

dirigitur in colorem, sed in actum visionis suae non dirigitur nisi per quamdam reditionem dum videndo colorem videt se videre” (*QDV* 10.9c). See also *ST* 1a 87.3.

39 One might ask for clarification, at this point, about precisely what Aquinas counts as *having a belief*. Might we all, in some sense, have beliefs about how we are appeared to, and what the contents of our visual field are? (So I have been asked, by Michael Tooley.) I don't want to attempt here to work out a theory of belief for Aquinas. But whatever the shape of that theory, it seems clear that he regards beliefs of the introspective sort (e.g., I am being confronted with a redlike appearance) as somehow secondary and derivative: “that which is first cognized by the human intellect is an object of this sort [an external object]; secondarily, intellect cognizes the act itself by which the object is cognized” (*ST* 1a 87.3c).

40 “Unde gustus non percipit saporem corporis distantis ut est talis corporis sapor, sed ut est aquae immutatae a tali corpore. . . . Unde visus non percipit colorem ut aeris vel ut aquae, sed ut corporis colorati distantis” (*InDA* II.21.87–99 [sec. 506]).

words, comes from how we perceive the respective objects. In the imaginary case, we would perceive the flavor as belonging to the water immediately around us rather than to the object originally dropped into the water. We perceive colors as belonging to distant objects and not to the intervening air. Here, as in the earlier passages, Aquinas is invoking the notion of seeing things in a certain way. As before, I would interpret this in terms of what sorts of beliefs we form on the basis of our perceptions.

If this interpretation is right, then Aquinas's official position – that species are not the things cognized but that in virtue of which we cognize – commits him to nothing stronger than that species are not the subjects of our judgments and beliefs. This is bad news for the proponent of the sophisticated reading, because on this interpretation the official position is perfectly compatible with an act–object analysis of perception and thought. Species may be, in some sense never clearly specified, the internal objects of apprehension. All that Aquinas would deny is that species are ordinarily *seen* or *intellectively cognized*. In this light, we can make sense of earlier passages that seemed to conflict with the official position. We will have to say that 6.3 is badly formulated, because species are not ordinarily seen or cognized at all, much less the first things seen or cognized. But 6.4 is perfectly acceptable, because we can understand him as saying that the external world is seen and cognized by means of the apprehension of species. The fact that he is willing to speak of species being *apprehended* shows that he conceives of cognition along the lines of the act–object doctrine. But the claim is not incompatible with his resolute opposition to representationalism. Aquinas, as we have just seen, has a principled reason for holding that even if species are in a sense apprehended, they are still not the objects of *cognition*.

This reading also puts 6.5 and 6.6 in a new, clearer light. In 6.5, he had claimed that one can think of a thing immediately even if it is seen through an image, and he seemed to explain what he meant by 'immediately' by adding: "without its cognition being *turned toward* some other thing." What this means, I would suggest, is that the object can be said to be thought of immediately in case there is no other object that is the subject of beliefs, thoughts, and so on. This is confirmed in 6.6, when he goes on to explain that for us to think of an object immediately through an image we must move or turn to the image not "as it is a thing of some sort" but "as it is an image of the thing," that is, an image of the object itself. To turn to the image in the first way, I take it, is to form beliefs and judgments about the image itself, whereas turning to

the image in the second way involves forming beliefs about the thing the image depicts. Recall that Aquinas said that to turn to the image in this second way is the same as to see the object itself through the image. We can now understand why this does not commit Aquinas to representationalism. In such a case, it is still the thing depicted by the image that is in every sense the object of *cognition*. The image is a mere intermediary, for although it is in some sense “turned to,” it is still not cognized – insofar as an object’s being cognized entails that beliefs are formed about that object.

Finally, we can also make sense of the classic argument of the *Summa* (1a q. 85 a. 2) against representationalism. Earlier, my claim had been that Aquinas’s argument isn’t effective against the act–object doctrine nor even against a moderate form of representationalism (Rep<sub>r</sub>). Now we can see why Aquinas could have ever taken the argument to be effective. If representationalism is the claim that we see, hear, and otherwise cognize species, and if seeing and cognizing species entails that it is species we form beliefs about, then it becomes plausible to think that any kind of representationalism would entail Rep<sub>i</sub>. On these presuppositions, the absurd consequences he warns of really would follow: “No science would be of things outside the soul; . . . all judgment would be true” (nn. 27–28).

Once again, this interpretation of Aquinas has to be embarrassing for the proponent of the sophisticated reading; it turns out that Aquinas is entitled to reject representationalism only when that doctrine is understood rather narrowly, as the claim that we don’t *see* or *cognize* the external world directly. We should not let Aquinas’s persistent claims to this effect obscure the fact that species do play the role of objects of our cognitive attention. Although it is the world and not our inner representations that we form beliefs about in standard cases, we nevertheless acquire those beliefs about the external world through a perception-like relationship with our sensible and intelligible species. It is debatable whether such a view should count as a form of direct realism. But, whatever labels we decide to attach to Aquinas’s position, it is very far from what a proponent of the sophisticated reading would expect.

## Chapter 7

### The veil of species

J. L. AUSTIN, speaking of the doctrine that we never *directly* perceive or sense material objects, characterized this as “a typically *scholastic* view.”<sup>1</sup> Austin’s claim was presumably not meant to be historical. But it is still an ironic fact that none of the prominent medieval Scholastics defended such a view, which I refer to as representationalism. Indeed, Olivi and Ockham, as we saw in Chapter 5, even went so far as to deny that perception was *causally* mediated by species of the external object. As we will see in this chapter, the Scholastics by and large agreed that however one is to explain the process of perception, one does not want to end up being committed to the claim that what we primarily perceive are our inner likenesses of the world. Aquinas, too, as Chapter 6 showed, is an avowed foe of representationalism, although this needs to be interpreted carefully. However, despite Aquinas’s frequent insistence that it is the external world that we perceive, later Scholastics were not convinced that he could maintain his species account without falling into representationalism. In the late–thirteenth century, such criticisms were made only rarely and seem to have originated in the work of Olivi. But by the early–fourteenth century, epistemological worries about the species theory had become, in the words of the historian Katherine Tachau, “virtually *de rigueur*.”<sup>2</sup>

It is no surprise that such worries arose. As we’ve now seen, even the most philosophically sophisticated proponent of the species theory, Aquinas, could not help but treat such species as internal objects – as the things we *apprehend* in order to have knowledge of the external world. It is only natural to wonder, when confronted with such an account, whether we actually can have such knowledge. When turning to the external world is identified with turning to our species in a certain way (6.6), the external world begins to look rather remote and

1 Austin (1964), pp. 2–3.

2 Tachau (1988), p. 232.

inaccessible. Knowledge of the external world now seems to presuppose a further piece of knowledge: that the world is as our species represent it as being. Given the account of cognition that is being offered, in particular its insistence that we get to the world through species, this further piece of knowledge seems utterly inaccessible. We seem to have lost touch with the world outside us.

Aquinas is silent on such issues, a fact that has exercised his admirers for centuries (cf. Appendix A). For a Scholastic answer to these problems, we have to turn to his successors. In this chapter we will see two different strategies for coping with the epistemological threat. On the one hand, there is the strategy of Henry of Ghent and William Crathorn, who attempt to argue within the species theory for the reliability of the senses. The problem they face is to formulate an account that is noncircular – that is, that does not, in the end, presuppose the reliability of the senses. On the other hand, there is the strategy of Olivi and Ockham. Their more radical proposal, already partially described in Chapter 5, is to eliminate the species account entirely, in favor of direct realism, and to reject explicitly the act–object doctrine, in favor of what I’ve been calling an act theory. Their project is important for the new way of thinking of mind that they develop. But in the end, I will claim that they are not in a better epistemological position than their opponents.

### 1. HERCULES AND HIS IMAGE (HENRY OF GHENT)

Henry of Ghent lectured and wrote at the University of Paris in the last quarter of the thirteenth century.<sup>3</sup> He is usually considered the most influential philosopher in the years immediately after Aquinas’s death; his work receives extensive comment from both Scotus and Ockham. Henry’s two major works are his *Summa quaestionum ordinariarum* and his *Quodlibeta*, both massive collections of questions written and debated over the same extended period of time, from the mid 1270s until his death in 1293.<sup>4</sup> Henry’s writing is often directed against the increas-

3 Marrone (1985) gives the basic biographical information and references to more detailed studies.

4 The critical edition of Henry’s work has so far published a large part of the *Quodlibeta* but very little of the *Summa*. Most of the questions I will be discussing have not yet been published in the new edition (1979–), so my references will be to Renaissance editions of the *Quodlibeta* (1518) and the *Summa* (1520). The only translation of Henry’s work into English that has been published is a set of his quodlibetal questions on the will – see Henry of Ghent (1993). A translation of *Quodlibet X* is in progress for the Yale Library of Medieval Philosophy.

ing dominance of Aristotelian thought; he tends to advocate reinstating Augustine's doctrines to the philosophical importance they had had until the mid-thirteenth century. This traditional perspective is evidenced from the opening questions of his *Summa*, a systematic theological treatise that would, if finished, have been similar in scope to Aquinas's *Summa theologiae*. Whereas Aquinas's *Summa* begins by discussing the importance and methods of theology, Henry devotes the first thirty-nine questions (articles 1–5) of his *Summa* to human knowledge in general and only after that goes on to consider the particular case of theology. Henry addresses from the outset, in the two long opening questions of the first article, the problem of what human beings can know:

Question 1: Can a human being know anything?

Question 2: Can a human being know anything without divine illumination?<sup>5</sup>

These questions are notable for being perhaps the first occasion on which a Scholastic author gave serious attention to the possibility of skepticism. He initially gives seven arguments *quod non*. The last of these arguments, and the only one that isn't said to be taken from ancient sources, is based on representationalism:

- 7.1 One who doesn't perceive the essence and quiddity of a thing, but only its image, can't know [*scire*] the thing. For one who has seen only a picture of Hercules doesn't know [*novit*] Hercules. A human being, however, perceives nothing of a thing, except only its image, that is, a species received through the senses, which is an image of the thing and not the thing itself. For not the stone but a species of the stone is in the soul. Therefore, etc.<sup>6</sup>

Before turning to Henry's reply to this argument, it is worth taking the time to list its premises explicitly. The heart of the argument runs as follows. For any external object *x* and person *P*,

1. *P* can't know *x* unless *P* perceives something more of *x* than its image.
- 5 "Primum: utrum contingat hominem aliquid scire. Secundum: utrum contingat hominem aliquid scire sine divine illustratione" (f. 1r). Note that Henry's *Summa*, confusingly enough, has the inverse of Aquinas's structure: Henry's *Summa* is composed of articles, each article containing questions.
- 6 "Ille non potest scire rem qui non percipit essentiam et quidditatem rei: sed solum idolum eius. Quia non novit Herculem, qui solum vidit picturam eius. Homo autem nihil percipit de re nisi solum idolum eius, ut speciem receptam per sensus, quae idolum rei est non ipsa res. Lapis enim non est in anima, sed species lapidis, ergo etc." (*Summa* 1.1 obj. 7; 1vA). Cf. *Summa* 1.2 (6r1), 34.5 (XXVII, 219), 58.2 ad 3 (130vH).

## *Hercules and his image*

(In fact 7.1 makes a claim that is much stronger than this, in that it requires P's perceiving "the essence and quiddity" of *x*. Taking up this aspect of the argument is not necessary for present purposes, however, nor does Henry focus on this issue in replying to the argument [in 7.2 below].)<sup>7</sup>

2. The most P perceives of *x* is its image.
- ∴ 3. P can't know *x*.

The argument is valid, but clearly both of the premises are questionable. Obviously, one might deny the second premise and hold that one does perceive more of external objects than their images. This is a claim that Aquinas insists on, as we saw in Chapter 6. One might also question the argument's first premise: the claim that I cannot know an object by knowing only an image of it. The objector in 7.1 supports this first premise with the example of Hercules. One who has seen only Hercules' picture does not know Hercules. The force of the example is diminished, however, because the objector at this point is playing fast and loose with verbs of knowing. In the first sentence of the passage, the verb *scire* is used, a term Henry will later define as a veridical apprehension that is *certain* (see n. 11). But in the second sentence, the objector switches to a second verb, *noscere*, which in this context implies knowledge by acquaintance. (This could more easily be translated by the French *connaître* or the German *kennen*.) This vacillation makes the Hercules example suspect as support for premise 1. Although I might not know Hercules by acquaintance on the basis of his picture, I might be able to know (*scire*) something about him on this basis. I might, for instance, do some research and thereby find out whether the artist was in a position to produce a good likeness of Hercules. Given the possibility of uncovering this sort of information about the painting's origins, there doesn't seem to be any reason to deny that I might know, on the basis of the painting plus supplemental background facts, something about Hercules. There is another ambiguity here: it's not clear what it means to "know the thing," as the objector puts it, as opposed to knowing something about the thing. I may be able to know something about Hercules, on the basis of his painting. But can I know Hercules in that way? What does it even mean to *know Hercules*, if that knowing is not meant to be knowledge by acquaintance? Leaving this difficulty aside, the considerations just mentioned do seem to show that the Hercules example is not a good one for making the broader claim that we have no

7 I explore some of Henry's views about the knowledge of essences in Pasnau (1995a).



knowledge of external things. There are ways of obtaining knowledge about things other than by directly apprehending them.<sup>8</sup>

The reply I've just made to 7.1 is not the reply that Henry makes. This is what he says:

7.2 To the seventh, . . . one ought to say that one may perceive the image of a thing in two ways. In one way, as the object of cognition. In this way it is true that one perceiving only the thing's image does not cognize the thing; for example, someone seeing the image of Hercules painted on a wall does not thereby either see or cognize Hercules. In another way, as the basis [*ratio*] of cognizing, and in this way the claim is not true. For through only a species perceived of a thing the thing is truly cognized – as a stone is truly seen through its sensible species alone, received in the eye, and is truly intellectually cognized through its intelligible species alone, received in intellect.<sup>9</sup>

The first thing to notice about this reply is that Henry shifts to less theory-laden verbs of knowing. He changes the language of the conclusion from *knowing* an object to *cognizing it truly*, by which he simply means a perception or intellectual cognition that is veridical. Instead of asking obscurely whether the external world can be *known* through our species of it, the question becomes whether one can have a veridical apprehension of the external world. This is a far more manageable problem.

"A stone," Henry says in 7.2, "is truly seen through its sensible species alone, received in the eye." This claim by itself reminds one of Aquinas's official position, as in 6.1. The species is not the thing seen but that *through which* we see, and so forth. The interpretation one would naturally give to such a claim is that the species is a causal intermediary

8 But cf. G. J. Warnock, who claims, "to decide that a portrait is a good likeness of a man, I must look both at the portrait and at the man. If the man is, like Locke's external objects, not to be seen, I can decide nothing at all" (Warnock 1953, p. 102). When the argument is put this baldly, I should have thought that it would appear obviously wrong. But Warnock takes it to be "wholly conclusive" (p. 101).

9 "Ad septimum, quod homo nihil percipit de re cognoscibili nisi idolum solum: dicendum quod percipere idolum rei contingit dupliciter. Uno modo tanquam obiectum cognitionis: hoc modo verum est quod percipiens solum idolum rei non cognoscit rem. Sicut videns imaginem Herculis depictam in pariete, ex hoc non videt neque cognoscit Herculem. Alio modo tanquam rationem cognoscendi: sic non est verum. Per solam enim speciem perceptam de re cognoscitur vere res, ut lapis vere videtur per solam speciem suam sensibilem receptam in oculo: et vere intelligitur per solam speciem suam intelligibilem receptam in intellectu" (*Summa* 1.1 ad 7; 3vK).

but not a psychological intermediary. The species, that is to say, is not an object of our cognitive faculties. And when we see Henry make the distinction between species as the basis of our cognition and species as the object of our cognition, he seems to establish a further basis for making this move. But, despite appearances, this doesn't seem to be Henry's position. He is happy to allow that species are perceived. He says, in 7.2, "through only a species *perceived* of a thing the thing is truly cognized." Conceivably, he is thinking here of the original, core meaning of the Latin *percipio*: to take in or to receive (see Ch. 1, p. 51). But he gives the reader no warning that, in this thoroughly cognitive context, he means the term to have purely causal implications (cf. 7.3). So it seems more likely that he himself is accepting the account of cognition that the skeptic advances in 7.1: species are not just causal intermediaries but are themselves objects of perception. It will be in virtue of perceiving them that we cognize the external world, if we cognize it at all.

How, then, do we cognize the external world? How is the skeptic answered? Henry is not, evidently, concerned with rejecting the second premise of the skeptic's argument, that we perceive only the images of things. Although he wants to conclude that we do see and understand the external world, and this veridically, he is willing to allow that we do so "through *only* a species perceived of a thing" (7.2). To admit this much is to accept the picture of cognition that the skeptic presupposes. Henry thereby gives the skeptic half of what she wants. Like Aquinas (as I read him), Henry is willing to explain our perception of the external world in terms of an interior apprehension of our species. This leaves him especially vulnerable to the skeptic. His only move now is to deny the skeptic's first premise: he has to show how, through the perception of species alone, we can get at the external object.

Henry attempts to do this, in 7.2, by distinguishing two different ways of perceiving species. When species are perceived as the object of cognition, one isn't able to cognize the external object. But when they are perceived as "the basis of cognizing," one can truly see and intellectually cognize the external object. This reply seems to miss the point of the objection (7.1) altogether. Henry's reply gives an account of how, through a species, one comes to have a belief about the external world and not about that species. He explains that, when one perceives the species *in a certain way*, the result is cognition of the external world, and he emphasizes that this will be a true (i.e., veridical) cognition. This story, as far as it goes, has a certain plausibility. But the skeptic's point

seemed to be an epistemological one. She isn't questioning whether through species, perceived in the right way, we can come to have beliefs about the external world, but is demanding an account of how this can result in knowledge. The skeptic never tells us, in 7.1, what would count as an adequate reply to her objection. It seems, however, that it is not a sufficient reply just to explain how we come to form *beliefs* about the external world. We also need an account of how those beliefs can be consistently true. Surely, the objector's point, after all, was to cast doubt on how we could arrive at truths about the external world on the basis of our inner impressions. (She wasn't denying that one might see a picture in a museum and rashly conclude, "so that's what George Washington looked like.") But although Henry does assert that our seeings and cognizings are true, he just asserts this. He gives no argument for that claim, nor does he say anything that might even partially ease the worries that the skeptic had raised about how we could ever reach *true* beliefs about what is outside us.

If Henry could give an account of why our beliefs about the external world are consistently true, then I think he would have answered the skeptic. One might think that something more is needed here: that Henry needs also to show that those beliefs would be justified. But it's a mistake to think that three things have to be established here: first, how we arrive at beliefs; second, how those beliefs are true; third, how they are justified. To show a group of beliefs to be consistently true *just is* to justify those beliefs. If I establish that on the basis of the paintings in the National Portrait Gallery, in London, I will arrive at consistently true beliefs about how those people actually looked, then I have at the same time shown that my beliefs in that respect are justified. It's not as if I first need to show that they are true, and then need to show that they are justified; doing the first constitutes doing the second. The same is true in Henry's case, but unfortunately he never does show that our beliefs about the external world are (generally) true – he simply asserts it. So his own objection (7.1) gets the better of him (in 7.2).

In the body of this first question of the *Summa*, Henry makes some further remarks designed to show that the senses and intellect engage in true cognition. A sense, he claims, is reliable when (a) it is perceiving its proper object (seeing color, hearing sounds, etc.) and (b) it is not contradicted by any other more accurate information.

- 7.3 In sensory cognition a thing is truly perceived as it is, without any deception or mistake, by a sense that during its own action of sensing its proper

## *Hercules and his image*

object is not contradicted by a more truthful sense or by an intellection received from a different, more truthful sense, whether in the same or in another [person]. Nor concerning something that we perceive in this way should one be in any doubt whether we perceive it as it is.<sup>10</sup>

When the senses meet these conditions, their apprehensions will be veridical, nor should anyone doubt them. (Intellect, too, is reliable, when it meets the second of these conditions.) He takes these claims to show that we do have knowledge from the senses and intellect. But in fact he hasn't *shown* any such thing. He has provided a criterion for when the senses and intellect should be trusted, and he issues the injunction that in such cases no one "should be in any doubt" (7.3). But he hasn't given an *argument* for these claims, so he hasn't met the skeptic's challenge – no more than he did above (in 7.2). In this same question, he defines 'knowing' (*scire*) in a broad sense as "every certain apprehension by which a thing is cognized as it is, without any mistake or deception."<sup>11</sup> And he maintains that apprehensions that meet the above criterion (7.3) are *certain*.<sup>12</sup> Notice that, as he defines knowledge, it may be that we have knowledge even though we can't show that we have it. It is unclear whether Henry has in mind an objective or a subjective sense of certainty – whether the apprehension must actually be certain or merely feel certain. Regardless of this, his criterion for knowledge doesn't require that we *show* our beliefs to be true, justified, or certain. (In this sense, his account of knowledge can be classified as *externalist*.) But although we may have knowledge, this mere possibility wouldn't satisfy the skeptic, who wants to be *shown* that we have knowledge.

Henry confronts a different line of skeptical argument in the very next question of the *Summa*. There, he distinguishes between knowledge of the true and knowledge of the truth. The former is roughly the same as veridical cognition, whereas the latter requires certain knowl-

10 "In cognitione enim sensitiva sensus ille vere rem percipit sicuti est sine omni deceptione et fallacia: cui in actione propria sentiendi suum proprium obiectum non contradicit aliquis sensus verior vel intellectus acceptus ab alio sensu veriori sive in eodem sive in alio. Nec de eo quod sic percipimus dubitandum est quin percipiamus ipsum sicuti est" (*Summa* 1.1; 1vB). See also *Summa* 1.1 ad 2 (3rF).

11 "Dicendum quod scire large accepto ad omnem notitiam certam qua cognoscitur res sicut est absque omni fallacia et deceptione" (*Summa* 1.1; 1vB). For further discussion of this definition see Pasnau (1995b), esp. pp. 353–54.

12 "Quantum est ex parte sensus et cognitionis sensitivae, patet quod simpliciter et absolute dicendum est quod contingit aliquid scire et cognoscere certa cognitione sensitiva" (*Summa* 1.2; 4vB).

edge of the essences of things. He rejects the objection in 7.1 insofar as it is meant to show that we can have no knowledge of the true. But when he turns to considering knowledge of the truth, which he wants to claim human beings are unable on their own to have, he embraces an argument that rests on the fact that species are intermediaries between us and the world. An intelligible species, he claims,

7.4 has a likeness with the false just as with the true. . . . For it is through the same images of sensible things that [i] we judge in sleep and in madness that the images are the things themselves, and [ii] we judge concerning the things themselves when awake and healthy.<sup>13</sup>

His point is that the truth cannot be distinguished from nontruth with absolute certainty. The same image – qualitatively the same image – can appear to me in a dream and in an ordinary case of cognition. Only in the latter case is the image veridical. But how is one to be certain, in any given instance, that such an image is veridical? Couldn't one be dreaming or mad? The argument here is importantly different from that of 7.1. There, the skeptical conclusion was based on the difficulty in principle of ever getting from the species to the external world. Here, the objection is based on a special difficulty: given that we do in general have impressions that accurately represent the external world (the claim Henry makes in 7.2 and 7.3), how will we pick out the illusory cases? Just because our cognition of the world is consistently veridical does not mean that it is always so. How, on any given occasion, can we be certain that our cognition is veridical? Henry thinks we never can be certain in this way, and from this it follows that we can't, on our own, have absolutely certain knowledge. At this point, he resorts to the theory of divine illumination: "no certain and infallible apprehension of pure truth can be had from anything except by looking to the exemplar of uncreated truth and light."<sup>14</sup> That exemplar, of course, is God.

It is never clear how this kind of certainty, which we can achieve only through God, differs from the kind we can attain on our own (nn. 11–12). But, if we look at the broader picture, Henry seems right to distinguish this special-case skeptical objection (7.4) from the general version discussed earlier (7.1). One of the attractive features of his posi-

13 "[S]imilitudinem habet cum falso sicut cum vero. . . . Per easdem enim imagines sensibilium in somno et in furore iudicamus imagines esse res ipsas: et in vigilia sani iudicamus de ipsis rebus" (*Summa* 1.2; 5vE).

14 "Nulla certa et infallibilis notitia veritatis syncerae a quocunque potest haberi nisi aspiciendo ad exemplar lucis et veritatis increatae" (*Summa* 1.2; 6vK). For further details of his account at this point, see Pasnau (1995a).

tion is that, although he grants the possibility of occasional undetectable illusory experiences, he doesn't take that to show that we shouldn't ordinarily trust our senses and intellect, as long as certain specified conditions are met (7.3). Moreover, it seems plausible that he can grant the special-case objection and still hold that we have knowledge. Because his account of knowledge is externalist (inasmuch as it doesn't require that we be able to show our beliefs to be true or justified), the threat of an occasional illusory impression that is indistinguishable from the real thing does not preclude knowledge. We don't have to be able to detect those false impressions; we'll just occasionally be wrong about the world.

What if we're wrong about the world all the time not just occasionally? What if our impressions aren't leading us to any true beliefs about the world? That was the challenge of the general skeptical argument (7.1), a challenge that, as I've argued, Henry fails to meet. Working within the framework of the species theory, he goes some of the way to developing a coherent reply to the skeptic. Unlike Aquinas, who (for whatever reason) never tries to answer these sorts of problems, Henry does confront the difficulties inherent in the species account as he (and Aquinas) formulate it. But he fails to appreciate the depth of the problem.

## 2. WOULD GOD DECEIVE US? (WILLIAM CRATHORN)

Henry of Ghent led the way toward the deepening Scholastic appreciation of the problem of skepticism. After Henry, there were many who, rather than attempting to refute skepticism from within the species theory, chose to revise or reject the theory altogether. Nevertheless, species continued to have their defenders, one notable instance being William Crathorn. Crathorn, like Henry of Ghent, begins his major theological–philosophical work (his *Sentences* commentary of 1330–32) by considering the scope of human knowledge. To a much greater extent than Henry, Crathorn looks at the challenge to our most basic kinds of knowledge. In the end, as we will see, he is no skeptic. But he begins by running through a series of claims that seem to promote skepticism. First, he argues that human beings cannot, through the senses, infallibly identify objects in the external world as being of a certain kind:

- 7.5 In this life we will not be able, on the basis of any sensory cognition, to have natural, evident and altogether infallible cognition of propositions

## *The veil of species*

of this sort: 'That is a stone,' 'That is bread,' 'That is water,' 'That is fire,' and so on for others.<sup>15</sup>

His arguments for this claim all turn on God's supernatural ability to preserve the accidents of a substance while changing the substance's nature. The obvious example of this is the Eucharist, but Crathorn says that in general "God could annihilate the nature of any corporeal substance at all and conserve its accidents in the same form and shape that they had before."<sup>16</sup> The conclusion he draws from this is that the senses are not an "altogether infallible" (7.5) source for knowledge of this sort. (In these texts, Crathorn is talking about what we call *knowledge*. But notice that his terminology shifts from one term to another, from 'cognition' [7.5, 7.6] to 'apprehension' [7.8] to 'evidently conclude' [n. 27].)<sup>17</sup>

This claim is broadened in his next conclusion, in which he extends the argument to the knowledge of accidental properties:

- 7.6 A human being in this life cannot on the basis of a sensory cognition have certain and altogether infallible cognition of the existence of any accident whatsoever outside the soul.<sup>18</sup>

By this he means that one can't even know infallibly that some color, sound, or the like, exists outside us. Crathorn gives a wide range of arguments for this claim, including the possibility of afterimages, hallucinations, and divine interference. His principal argument rests on species as a mediating representation of reality:

- 7.7 Someone seeing whiteness sees at the same time, indistinctly, both whiteness and a species of whiteness; nor can he by the mere fact that he is

15 "Alia conclusio probanda est ista quod pro statu isto non poterimus habere cognitionem naturalem evidentem et omnino infallibilem de huiusmodi complexis: Lapis est; panis est; aqua est; ignis est, et sic de aliis ex cognitione quacumque sensibili" (*I Sent.* q. 1, concl. 8; 122).

16 "Deus posset naturam cuiuscumque substantiae corporalis adnihilare et ipsius accidentia conservare in eadem forma et figura, quam prius habuerunt" (*ibid.*, 123). Later, John Wyclif would argue against the doctrine of transubstantiation in the Eucharist on the basis of its dangerous epistemological implications. See Kenny (1985), p. 85.

17 It is hard to know which Latin term is best translated into English as 'knowledge.' In my translations, I reserve 'knowledge' and its cognates to translate *scientia* and its cognates.

18 "Nona conclusio est ista quod ex cognitione sensitiva non potest viator habere cognitionem certam et omnino infallibilem de existentia cuiuscumque accidentis extra animam" (*ibid.*, concl. 9; 123).

seeing distinguish between whiteness and the species of whiteness. Therefore, even if he sees a whiteness that is external, he cannot be made certain on the basis of the vision (i.e., by the mere fact that he sees it) that it is external.<sup>19</sup>

This argument is based on representationalism: he states at the very outset of his *Sentences* commentary that species are the things “immediately cognized,” whereas the external object “is cognized mediately – mediated, that is, by its likeness.”<sup>20</sup> In this respect, he is much more extreme than any defender of the species theory we have yet met. Aquinas, I’ve argued, did tend to think of species as internal objects of apprehension. And Henry of Ghent flatly admits that species are perceived (7.2). From such positions, it *could* follow that species are the things immediately cognized, as Crathorn holds. But Aquinas explicitly denies that inference, as we have seen (6.1, 6.2, 6.5, 6.9, 6.10), and Henry never goes so far. Of the figures we have been studying, Crathorn is the only one who explicitly accepts representationalism. As a Dominican friar, he was under formal obligation to uphold the teachings of his great Dominican predecessor, who by then was *Saint Thomas Aquinas*.<sup>21</sup> But here, as elsewhere, Crathorn is no blind follower of tradition. When he finds himself disagreeing with Aquinas, Crathorn is happy simply to deny that Aquinas really meant what he had said.<sup>22</sup> Within the broad framework of Aquinas’s theory of cognition, Crathorn feels free to work the issues out in any way he sees fit; his representationalism is characteristic of that tendency. Oddly, he gives no explicit argument for representationalism. The view is a natural corollary to some of

19 “Videns albedinem simul et indistincte videt albedinem et speciem albedinis, nec potest ex hoc solo quod videt distinguere inter albedinem et speciem albedinis. Igitur etsi videatur albedo, quae est extra, videns eam non potest virtute visionis, id est ex hoc solo quod videt eam, non potest certificari, utrum sit extra” (ibid.).

20 “Istud nomen ‘cognitio’ . . . aliquando supponit pro illa re, quae est similitudo rei cognitae, quae similitudo est in cognoscente et immediate cognoscitur. Aliquando vero hoc nomen ‘cognitio’ supponit pro re cognita, quae est extra cognoscentem et mediate cognoscitur, scilicet mediate sua similitudine, quam gignit in cognoscente” (ibid., dist. 1; 70).

21 To cite just one example of this official pressure, the Dominican general chapter meeting in 1313 resolved that “no one should dare teach, determine or respond differently from what is commonly thought to be his [Aquinas’s] teaching” (quoted in Weisheipl 1974, p. 343).

22 Crathorn rejects, for instance, the theory of universals as singular in things, universal in intellect, and neither in themselves. As to Aquinas’s defense of that doctrine (e.g., in the *De ente et essentia*), Crathorn writes, “Sed quod illa sint de mente illius Sancti non credo, sed forte dixit praedicta conformando se modo loquendi hominum pro tempore suo” (*I Sent.* q. 2; 193).



his other views, in particular, his claim that species are literally likenesses of the things they represent (see Ch. 3, sec. 1). And one can infer that his representationalism is based on the existence of illusions. He does explicitly argue that “the likeness existing in the cognizer . . . is *sometimes* cognized and sensed when the thing of which it is a likeness is not intuitively cognized or sensed.” His arguments for this conclusion are based on various kinds of illusions, in which there is nothing existing externally like what is seen.<sup>23</sup> From that conclusion, it must have seemed to him a short step to the further conclusion that our internal impressions are *always* perceived.

As 7.7 indicates, Crathorn does maintain that the external world is seen. Indeed, he takes it that we see both the species and the external world and that we are unable to distinguish between the two. This seems, at first glance, a rather odd thing to say. Does he mean to say that, in ordinary cases of seeing, there are two objects, the species and the external object? The natural thing to reply is that we can’t distinguish in this way, because there is no distinction to make. All we see is the external object.

Crathorn’s underlying point in 7.7 is familiar, however, despite his distracting talk of seeing “both whiteness and a species of whiteness.” The point he really wants to make is that we can’t distinguish between (1) the case in which we see both a species of whiteness and external whiteness, and (2) the case in which we see only the species of whiteness. Each case looks precisely the same to us.<sup>24</sup> Therefore, as Crathorn puts it, “one cannot be made certain” that there is anything in the world corresponding to our sensations. Suitably understood, the argument is just a perfectly standard statement of the epistemological consequences of representationalism. In essence, the argument is the same as Henry of Ghent’s special-case skeptical argument (7.4), although Henry’s argument pointed to specific illusory phenomena (dreams and mental illness).

The peculiar features of Crathorn’s theory of cognition allow him to reach one further and rather distinctive skeptical conclusion. He claims that we not only do not have certain knowledge of the external world, but that we also cannot be certain that there is an internal species corresponding to our perception:

23 “Tertia conclusio est quod praedicta similitudo existens in cognoscente . . . aliquando cognoscitur et sentitur non cognita intuitive nec sensata aliqua re, cuius est similitudo” (ibid., concl. 3; 98). Cf. pp. 98–102, 118, 124.

24 Cf. ibid., concl. 4 (102), where Crathorn makes many of these points.

- 7.8 Someone seeing a color cannot in virtue of his vision have an infallible and certain apprehension that there is some species of color or some color in his soul.<sup>25</sup>

Standardly, the skeptic will allow that we can at least have some knowledge of our internal states. If we can't know there's a lemon in front of us, at least we can know that we're being confronted with a sense-datum (for instance) of the sort we associate with lemons. Crathorn wants to deny, however, that we can even know we're having a sensation in the standard way. It might be, he thinks, that we could see yellow without having any species of yellow at all. He argues for this claim by contending that it is possible, through the power of God, to see an object without the mediation of species. A color could, in such a circumstance, be seen, and yet it "would in no respect affect one's visual power"<sup>26</sup> – that is, it would not produce any sensible species there. The result is that one can tell, on the basis of sensation, neither that things are in the external world as they seem to be nor even that our internal impressions are as they seem to be.

Crathorn does not let these skeptical claims stand unqualified for very long. Having made things look very bad for human knowledge, Crathorn begins his defense. Although someone seeing whiteness cannot know whether this whiteness exists externally, he can know the phenomenal truth that he is seeing whiteness (conclusion 11). And he can know first principles, such as the law of noncontradiction (*ibid.*). But most important, he can know that "God or the first cause does not act groundlessly and supernaturally so as to lead human beings into error." Crathorn imagines the possibility of radical deception: that God might constantly deceive us so that none of our sensations have any correspondence with external reality. "Such an action," Crathorn says, "everyone of sane mind judges to be incompatible with divine goodness." His conclusion, therefore, is that, on the basis of the premise that God would not deceive us – known *per se* – combined with sensory cognition, we can have knowledge that things are as they seem to be.<sup>27</sup>

25 "Videns colorem non potest virtute visionis suae habere notitiam infallibilem et certam quod in anima sua sit aliqua species coloris vel aliquis color" (*ibid.*, concl.10; 125).

26 "Sed color ille in nullo potentiam suam visivam immutaret" (*ibid.*). Crathorn defends this claim at length in conclusion 4 of q. 1, although many of his arguments there seem quite weak.

27 "[E]x cognitione sensitiva et isto complexo per se noto: Deus vel prima causa nihil agit frustra et supernaturaliter ad inducendum homines in errorem, potest evidenter concludere tales res sensatas esse, quia conservatio specierum ita generalis scilicet

The skeptical conclusions of 7.5, 7.6, and 7.8 hold if one considers what can be known through sensory cognition alone. But on the basis of sensory cognition plus supplementary premises known per se, knowledge of the external world is possible.

The line of argument I've just sketched reveals a great deal about Crathorn's theory of knowledge. He allows that one might cognize the world as it is, forming true beliefs on this basis, and yet still not have certain knowledge of the world. True beliefs, consistently generated, are not sufficient for such knowledge. For Henry of Ghent, recall, we didn't need to show that our beliefs were true in order to have knowledge. Crathorn, in contrast, thinks that for certain knowledge we must not only cognize things as they are but also know that God would not deceive us. He says explicitly that anyone who doesn't know this further fact per se will not have certain knowledge.<sup>28</sup> This shows that Crathorn is presupposing an account of knowledge on which one must be able to produce a justification for everything one knows. One's knowledge must not only be justifiable in theory (by the experts, say) but also in fact justifiable by the knower. If you cannot, on demand, produce a demonstration that what you believe is true, then you do not know it. This is the criterion for knowledge implied by Crathorn's discussion.

One wonders whether he would be happy with what his theory of perceptual knowledge implies, that is, that only a lucky few (notably, philosophers) know anything about the external world with certainty. There is a further question about whether in fact anyone would know anything with certainty. Where will we find the premises known per se on which to base our knowledge? Later in his *Sentences* commentary, Crathorn argues that demonstrations must be based on premises that are either (1) known per se; (2) entailed by other premises known per se; or (3) known to the senses.<sup>29</sup> As we've seen, the third option itself falls back on premises known per se. And Crathorn is not terribly forthcoming in providing us with a list of things that are known per se, so that we can figure out just how much we know. He doesn't even tell us how to decide for ourselves whether something is known per se. So it is not

quod homo per totam vitam suam nihil videret nisi tales qualitates existentes in vidente, foret miraculosa et vana et effectiva errorum multorum, qualem actionem quilibet sanae mentis iudicat divinae bonitati repugnare" (ibid., concl. 12; 126–27).

28 "Argumenta posita superius bene concludant quod ex sola cognitione sensitiva talium qualitatum sensibilium non posset evidenter concludere ille, qui tales res sentit, quod tales res sint in rerum natura" (ibid., 127).

29 *I Sent.* q. 4 concl. 9 (283).

clear how we are to know per se that God would “not act groundlessly and supernaturally” to deceive us (n.27). Later in his commentary, he argues at length that we cannot demonstrate that there is only one God, rejecting various arguments purporting to show that there is a first cause or highest exemplar.<sup>30</sup> But if we can’t even show that there is only one God, how can we know per se that some god would not act groundlessly so as to deceive us? If that is one of the basic premises of human knowledge, essential to all empirical knowledge, then at the very least Crathorn owes us an argument to establish its status as such. But he is strangely silent on this point.

The obvious similarities between Crathorn and Descartes’s *Meditations* could easily lead one to be overly impressed with Crathorn’s work.<sup>31</sup> But the comparison shows not so much that Crathorn is a visionary thinker as that, in these respects, Descartes’s thinking is not novel. Indeed, even in Crathorn’s time, these moves were not particularly original. He was just one of many philosophers worrying about the problem of global skepticism and, in particular, the skeptical problems arising from God’s ability to deceive.<sup>32</sup> Moreover, in another respect, Crathorn is decidedly not innovative. Like Henry of Ghent, Crathorn generates general skeptical problems from the way in which he understands the species theory. It is not just that both Henry and Crathorn accept species. As I’ve argued in Chapter 5, on one interpretation of the theory, anyone would have to accept the existence of species. So defending species does not in itself force one to the skeptical difficulties associated with representationalism. It is the way both Henry and Crathorn conceive of species that leads them into this trouble. Each treats species as cognitive intermediaries, the things we apprehend in order to get to the external world. In each case, their skeptical arguments are derived from precisely that feature of their accounts

30 *I Sent.* q. 4 concl. 13–14 (285–306).

31 Cf. Descartes: “[H]e cannot be a deceiver, since it is manifest by the natural light that all fraud and deception depend on some defect” (Meditation III); “God, who is supremely perfect, and who cannot be a deceiver on pain of contradiction” (Meditation IV).

32 Leonard Kennedy (1983), (1985) has documented the extent to which skepticism was a prominent issue among many of Crathorn’s contemporaries. Perhaps the most prominent and interesting example of the fourteenth-century tendency toward skepticism is Nicholas of Autrecourt’s letters to Bernard of Arezzo, which question whether we have any knowledge other than what is derived from the principle of noncontradiction. They are translated in Hyman and Walsh (1973), pp. 703–13.

With respect to the particular problem of God as a potential deceiver, see Maier (1963), who shows how widespread the discussion was.

(see 7.1 and 7.3 in Henry's case, and 7.7 in Crathorn's). Skepticism, for each, is the immediate consequence of how they conceptualize cognition. But neither Henry nor Crathorn were moved by this fact to rethink their broader theories. Each thought he could reply to the skeptic from within the theory of species. Neither thought to challenge the theory itself, and in this respect both are fundamentally conservative thinkers. (In this connection, see Appendix B on Henry of Ghent.)

Others, seeing these same epistemological issues, reacted in ways that were more original. Both Olivi and Ockham, in particular, reacted by entirely rethinking the standard account of mind. Where Henry of Ghent invokes divine illumination and Crathorn appeals to God's goodness, Olivi and Ockham claim that what we need is a whole new way of thinking about cognition and mental representation.

### 3. THE SPECIES AS A VEIL (OLIVI)

Olivi was Henry of Ghent's contemporary. But where Henry is content to make minor changes to the species theory, Olivi advances a true and thoroughgoing criticism. As the first Scholastic philosopher to offer a serious alternative to species, Olivi is in a position to attack the account unreservedly. He is, as we saw in Chapters 4 and 5, motivated to do so for a variety of reasons, not just epistemological ones. Nevertheless, the skeptical implications of the species theory receive a great deal of attention.

Olivi's strategy is to advance through a series of ever-more-serious charges against the species theory. His attack culminates in the claim that the theory would leave us epistemologically isolated from the external world.<sup>33</sup> He begins with the more-modest claim that the theory is committed to taking species as the objects of cognition:

7.9 A species will never actually represent an object to the cognitive power unless the power attends to the species in such a way that it turns and fixes its attention on the species. But that to which the power's attention is turned has the character of an object, and that to which it is first turned has the character of a first object. Therefore these species will have the

33 Olivi gives this series of arguments in two places: *II Sent.* q. 58 ad 14 (II, 469–70) and q. 74 (III, 122–23); in neither place does he say that he's moving from less- to more-serious charges.

character of an object more than the character of an intermediate or representative source.<sup>34</sup>

The account Olivi rejects at the end of this passage closely fits that of Aquinas, for whom the species is an *intermediary*, a *representation* of the external object, and the *source* of cognition (see Ch. 6, sec. 1). Instead, Olivi concludes, the species will have to be the object of cognition – the thing cognized not that by which one cognizes.

His argument for this conclusion turns on the first sentence of the passage, in which he claims that a species could not represent an object to a cognizer unless the cognizer attends to the species. By ‘attending to’ and ‘turning to’ Olivi has in mind the active focus on the cognitive object, which he accuses the Aristotelians of ignoring. As we’ve seen, Olivi takes this attention to the object to be both a necessary (4.5) and a sufficient (5.7) condition for a cognition of that object. So if he is right that we have to focus our attention in this way on species, then those species will end up being the object of cognition and not merely causal intermediaries. It’s not so clear, however, that Olivi is justified in his initial assumption. What the argument seems to presuppose is that one thing can’t represent another to a cognizer unless the first is in some manner apprehended by that cognizer. The argument moves from

1. Species represent external objects,
- a point Aquinas would grant (see Ch. 3, sec. 3), to
2. One thing can represent another to a given person only if the first thing is itself apprehended by that person.

On this basis, Olivi concludes that

3. Species must be apprehended.

From here the rest of the argument follows straightforwardly, given his broader account of cognition. But whereas the first step in this argument seems uncontroversial – as Olivi says elsewhere, representing external objects “is what species seemed most needed for”<sup>35</sup> – the sec-

34 “Nunquam species actu repraesentabit obiectum ipsi potentiae, nisi potentia aspiciat ipsam, ita quod convertat et figat aspectum suum in ipsam. Sed illud ad quod convertitur aspectus potentiae habet rationem obiecti, et illud ad quod primo convertitur habet rationem primi obiecti. Ergo species istae plus habebunt rationem obiecti quam rationem principii intermedii seu repraesentativi” (*II Sent.* q. 58 ad 14; II, 469). See also q. 74 (III, 123).

35 “[N]on exigitur ad repraesentandum obiectum, et tamen hoc est illud pro quo magis videbatur exigi” (*II Sent.* q. 74; III, 122).

ond step is far from obvious. Must we hold that representation requires an awareness of the representative? Tellingly, Olivi leaves this assumption unstated in 7.9. When he reformulates the argument later in his *Sentences* commentary, he says that “it is pointless to postulate a species representing the object to the attention unless the attention tends toward the species.”<sup>36</sup> But to insist without argument that this must be so seems to beg the question. It seems perfectly intelligible to claim that species play their representative role in a purely causal way, below the cognitive surface.

Olivi allows that a species, if conceived in a certain way, might play a purely causal role and not be an object of cognition. Indeed, he seems to make a distinction much like the one I described in Chapter 6 between a naive and a sophisticated theory of species. He says, “it is one thing to be the basis or species informing our intellect and another to be the first object representative of another object.”<sup>37</sup> The first possibility seems to correspond to species as mere forms, cognitive states. When species are understood in that way, Olivi suggests that his objections won’t apply. (This is precisely what he should say, because when species are understood in that way there is nothing controversial about them.) The second possibility seems to correspond to what I’ve been calling the naive theory of species. Species are themselves the objects of cognition (the “first object,” as Olivi says here) and are representations of the external world. It is against species conceived of in this way, Olivi suggests, that his arguments hold. As we’ve seen, this is no straw man that Olivi is arguing against. Henry of Ghent accepts a theory of species much like this in the opening questions of his *Summa*; Aquinas, too, shows signs of conceiving of species along these lines. Further, the example of Crathorn shows that this way of conceiving of species would retain plausibility well into the fourteenth century.

Granting that Olivi’s argument is effective against a naive theory of species, his reasoning still remains puzzling. The crucial premise in 7.9 is that if a species *represents* the external world to someone, then the species will itself be apprehended by that person. This inference seems too strong. Wouldn’t even a proponent of the sophisticated theory of species say that species represent external objects? Even when conceived of as cognitive states, species still seem to be representations. Indeed, the central characteristic of species, however else they are con-

36 “Secundo, quia frustra ponitur species repraesentans obiectum aspectui, nisi aspectus intendat in ipsam” (ibid., 123).

37 “[A]liud est esse rationem vel speciem informantem nostrum intellectum et aliud esse obiectum primum alterius obiecti repraesentativum” (*II Sent.* q. 75; III, 142).

ceived, is that they are the things in virtue of which our thoughts and sensations represent the external world. But clearly there is room for understanding species in such a way that they are not themselves the objects of our cognitive attention. So although Olivi's argument may have some *ad hominem* force against species theories as they were in fact being proposed, his argument in 7.9 may on its own seem unsatisfactory. (Recall that at i.5 we saw Durand of St. Pourçain argue in a similarly ineffectual manner.)

There is more here than at first appears, however. Olivi begins 7.9 by saying that "a species will never actually represent an object *to the cognitive power* unless the power attends to the species." And there is a difference between claiming simpliciter that species represent an object and claiming that they represent an object *to someone* (or something). The sophisticated version of the species theory treats species as representations. But although on that version of the theory a species may represent the world as green, there is nothing and no one *to whom* the species represents the world as green. The sophisticated theory doesn't require that when there is a representation there is always an audience receiving the message. Olivi, however, specifies from the start of 7.9 that he is attacking a theory of species that presupposes such an audience. It is not species *per se* that Olivi is criticizing but species conceived of in a certain way. If one assumes that, for species to represent the external world, there must be someone or something receiving that representation, then it does begin to look as if those species will themselves be an object and not a mere causal intermediary. Against an opponent of this sort, the argument looks much more plausible.<sup>38</sup>

Olivi is targeting a certain way of conceptualizing cognition. If one conceives of species as representing the external world to some further internal perceiver, then it does look as if the species becomes the thing apprehended. Conceived of in this way, species become a kind of sign. Signs, for the Scholastics, are often conceived of as things that, *when apprehended*, bring other things to mind.<sup>39</sup> Species, on the view Olivi is criticizing, function as a kind of sign: they themselves are apprehended and thereby bring to mind the external object. But this way of understanding species requires an internal perceiver, and it looks as if the only thing this perceiver will ever see are the species themselves.

38 I owe the thoughts in this paragraph to an initially innocuous-looking suggestion by Sydney Shoemaker.

39 See, e.g., Roger Bacon, *De signis* l.2: "Signum autem est illud quod oblatum sensui vel intellectui aliquid designat ipsi intellectui"; *ibid.*, l.6: "[P]er notitiam signi devenimus in cognitionem significati."



Such epistemological consequences stay beneath the surface of 7.9. But Olivi presses the argument further. The second step in his overall argument is to reach the conclusion that species would have to be the *first* object of cognition. He had already said in 7.9, “that to which the power is first turned has the character of a first object.” But he goes on to say that to turn toward a species in the way that we must if that species is to represent the external world to us “is the same as to attend to it as a first object.”<sup>40</sup> He concludes that “we would always cognize the species before the thing itself that is the object.”<sup>41</sup> We might wonder precisely what charge Olivi is making here. What sense of ‘before’ does he have in mind? Presumably, it is not the temporal sense that is involved. There obviously aren’t two acts of cognition in question that can be temporally ordered. No one thinks that we first see the sensible species and then, at a later *time*, see the external object. There is only one act of vision in question, so a temporal ordering cannot be at issue. I take it the point Olivi wants to make is one more often made by denying that the world is seen *directly* or *immediately*. The external world, if we see it at all, is seen only at second hand and indirectly.

This is of course the doctrine of representationalism. And whereas Crathorn willingly saddles himself with such a position, and Henry of Ghent might not have been bothered by the charge (cf. 7.2), Aquinas certainly did not see himself as committed to any such thing. So if Olivi could show that the species theory, as standardly conceived, entails such a conclusion, then he would be scoring considerable points against the opposition. Unfortunately, Olivi doesn’t argue for this charge of representationalism. He seems to consider it obvious that if the species is itself an object of cognition, it will be the thing cognized first and immediately. To see why he might do so, we should recall the two criteria for immediacy given in Chapter 6. On the first criterion, an object is seen immediately if and only if there is no more immediate way in which it could be seen. This can’t be the principle Olivi is implicitly basing his claim on. Although he does think that there is a more immediate way than through species in which we can see the external

40 “[I]ntendere autem in ipsam est idem quod aspicere eam tanquam obiectum primum” (*II Sent.* q. 74; III, 123).

41 “Praeterea, illud ad quod aspicendum potentia convertitur, ab ipsa potentia apprehenditur et cognoscitur tanquam eius obiectum. Si igitur aspicit ipsam speciem, ergo cognoscit eam tanquam suum obiectum, et si primo aspicit eam, ita quod primo terminatur in eam, aspectus suus erit eius primum cognitum tanquam eius primum obiectum, ut ita semper primo cognosceremus speciem quam ipsam rem obiectam” (*II Sent.* q. 58 ad 14; II, 469).

world – namely, through a virtual attention to the object itself (see Ch. 5, sec. 2) – he wants his own account of cognition to be the conclusion of his argument not a premise. In other words, in these passages, Olivi is arguing for his account of virtual attention by arguing against the species theory. So he doesn't want, in refuting the species theory, to presuppose the possibility of virtual attention.

The second criterion for immediacy is much more promising as the sort of implicit premise Olivi must have in mind. That criterion, as given in Chapter 6, runs as follows (P being a percipient, *x* an object of perception):

P sees *x* immediately iff there is no other object *y* such that (a) it is in virtue of seeing *y* that P sees *x*, and (b) *y* is a more immediate object of sight for P than *x* is.

The intuitive idea behind this criterion is that an object is seen immediately if and only if there is no other object that makes it possible for the first object to be seen and that is itself a stronger candidate for being immediately seen. What especially recommends this criterion as Olivi's is that it gives him a good argument. If species are themselves cognized, then the external world will not be cognized immediately, for the species surely are (a) the things in virtue of which the external world is cognized, and (b) more immediate objects of cognition than the external world is. This is, I believe, how Olivi means to argue. (It's not hard to reformulate the criterion in terms of Olivi's talk of "first" and "before," although I'll let those details pass.)

One might protest that Olivi's reasoning is circular. After all, his conclusion (as I've described it) rests on the unsupported premise that species would be more immediate objects of cognition than the external world. The notion of *cognized immediately*, therefore, seems to have been presupposed from the start. And no wonder; notice that the criterion for immediacy itself employs the notion of immediacy on both sides of the biconditional. So it may look as if very little has been explained. All Olivi is saying, apparently, is that species are seen first, because they are seen before the external world is.

The problem, one might think, is with the notion of *directly* or *immediately* or *first*. It's not always easy to see what is meant by claiming or denying that the external world is seen directly. Indeed, if one considers the common contemporary reaction to such claims one would be likely to despair of attaching any clear sense to Olivi's argument. Jonathan Bennett reports, "I cannot find clear meaning in the uses philosophers

of perception make of 'direct' and its cognates."<sup>42</sup> And J. L. Austin argues that the word 'direct' has been stretched so far as to have no meaning as it is used in these contexts.<sup>43</sup> So we might suspect that the above criterion is unable to analyze out the concept of immediacy because we have no clear sense of what we mean by that concept.<sup>44</sup> But even without offering a reductive explanation of what is meant by direct or immediate cognition, I think we can still see that Bennett and Austin are unduly pessimistic. The above criterion sheds more light on these issues than is at first evident.

The criterion supposes that the question of immediacy has two aspects. There is, first, an ordering problem: when confronted with several different prospective objects of cognition, we can look to give these objects a rank in terms of how immediately, relative to the others, each is cognized. Second, there is a cutoff problem: given this ordering, where do we draw the line between what will and what will not count as immediately cognized? The above criterion answers the second of these problems: it claims that an object is immediately seen if and only if it is ranked first in terms of immediacy. (The "in virtue of" clause specifies that an object need be ranked first relative only to other objects that causally contribute to the first object's being seen.) But the criterion presupposes an answer to the ordering problem: given a choice of several objects, we will be able to state which is the most immediate

42 Bennett (1971), p. 69.

43 Austin (1964), p. 15. His words are worth quoting. "Now of course what brings us up short here is the word 'directly' – a great favorite among philosophers, but actually one of the less conspicuous snakes in the linguistic grass. We have here, in fact, a typical case of a word, which already has a very special use, being gradually stretched, without caution or definition or any limit, until it becomes, first perhaps obscurely metaphorical, but ultimately meaningless. One can't abuse ordinary language without paying for it."

44 Why not just eliminate clause (b) and rest everything on the first, "in virtue of" part of the criterion? This is the move made in Jackson (1977). But (as Jackson realizes) the strategy involves substantial difficulties. For example: I might first see a bit of egg in someone's beard and, in virtue of that, go on to notice some more egg on his tie and some coffee stains on his pants. But although there is a sense in which the egg in the beard was seen immediately, and the rest nonimmediately, this is a different sense of 'immediately' from the one under discussion. So the "in virtue of" part of the criterion must somehow be refined or supplemented. My own proposal is unsatisfying, because it is nonreductive, but it holds out the hope of sidestepping some of the vagaries of the "in virtue of" clause. (I think, for reasons the next two paragraphs will make more clear, that it sidesteps cases of the above sort.) I suspect that, even as a nonreductive criterion, my proposal is not entirely satisfactory, but I have to leave these issues aside for the sake of my present, primarily historical concerns.

object of cognition. That is why the criterion is nonreductive, and (Bennett and Austin might say) that is why it gets us nowhere.

In fact, we have gotten somewhere, because the ordering problem is relatively trivial. Even if a reductive account of immediacy eludes us, we nevertheless have a clear intuitive grasp of how cognitive objects should be ranked in terms of immediacy. For example, if we think of my watching the Yankees on television, we have no difficulty in ranking the various prospective visual objects. If we hold that the only thing I am seeing is the baseball game, then of course there is nothing to rank. If, however, we hold that I am seeing both the game and the TV set, then clearly we will want to say that the more immediate visual object is the TV. If, finally, we hold that I am seeing (a) my own sensory impressions, (b) the TV, and (c) the game, then the ranking remains clear: the most immediate object is (a), followed by (b) and then (c). On either of these last two scenarios, according to the proposed criterion, I would not be seeing the game directly. But although one might argue over which of the three scenarios best describes my watching the Yankees, and one might quarrel with the proposed criterion, there seems no basis for quarreling with the ordering just presented. Olivi takes this ordering for granted, but he seems quite within his rights to do so.

Questions about the immediacy of cognition appear intractable only when we fail to distinguish three separate questions: what will we count as objects of cognition? How, in terms of immediacy, will we order these objects? Where will we put the cutoff point between immediate and nonimmediate objects? Because the second question is uncontroversial, we can focus our attention elsewhere. And because the third question remains in the background of Scholastic discussions, most of the action centers on the first question. It is no surprise, then, that Olivi's argument is most effective against a theory that treats species as the objects of cognition (a theory such as Crathorn's or Henry of Ghent's). When species are conceived of as representing the world to some inner audience, then Olivi is in a good position to charge that this makes our perception of the external world indirect. But notice that he will have a problem making this charge stick against Aquinas. Although he accepts much of the picture Olivi criticizes, Aquinas denies that we do see or cognize species; species aren't seen at all (in ordinary cases), so nothing is seen more immediately than the external world. Think again of my watching the Yankees. Aquinas would accept such a picture as a rough model for how cognition works – or so I claim. But he would deny that I am really seeing the television. What I'm seeing, Aquinas would say, is the baseball game, because that's what I am

forming beliefs and judgments about. I see the TV only in special reflective moments (as when my wife's cat knocks the antenna awry). No doubt some will resist my suggestion that Aquinas's account of cognition is at all analogous to such a situation. I've turned Aquinas into Locke, some will say, and in important respects I have. But notice that Aquinas, as I read him, has a good reply to Olivi, because he has a principled reason for denying that species are seen or cognized. For Olivi to prevail at this point, he would need to return to the first stage of his argument and show why Aquinas is committed to treating species as the objects of cognition. If my conclusions in Chapter 6 are correct, then this is an argument Olivi has a good chance of winning. But he would have to reckon with Aquinas's explicit claims that species are not the things we perceive.

So runs the second stage in Olivi's argument, the stage in which he argues that species would be the things seen first, or immediately. But Olivi takes the argument one step further. Someone who wants to claim that our internal sensations are themselves perceived has to choose whether or not to claim that the external world is also perceived. Olivi takes it that it is not; on the species account, we would not perceive the external world at all but only images of it:

7.10 The attention will tend toward the species either in such a way that it would not pass beyond so as to attend to the object, or in such a way that it would pass beyond. If in the first way, then the thing will not be seen in itself but *only its image will be seen as if it were the thing itself*.<sup>45</sup>

The argument is based on a dilemma. Granting that cognizers must attend to species, there either will or will not be a separate and further attention to the object itself. It would of course be quite odd to say that there is such a further attention. This would entail, as Olivi goes on to say, that one "considers the object in two ways – first through a species, second in itself."<sup>46</sup> This seems too much at odds with the phenomenal feel of perception to be a serious possibility. The obvious way out of the dilemma, then, is to say that there will not be any further attention: one apprehends the external world, if one does at all, in virtue of attending to the species themselves. This is what the representationalist will likely

45 "[A]ut aspectus sic intendet in speciem quod non transeat ultra ad aspiciendum obiectum aut sic quod transeat ultra. Si primo modo, ergo res non videbitur in se, sed solum videbitur eius imago acsi esset ipsa res" (*II Sent.* q. 74; III, 123). See also q. 58 ad 14 (*II*, 469–70, 487–88).

46 Continuing 7.10: "Si secundo modo, scilicet, quod transeat ultra ergo post inspectionem speciei inspiciet obiectum adhuc in se ipso, et sic cognoscat ipsum duobus modis, primo scilicet per speciem, secundo in se ipso."

say. But if this is the case, Olivi argues, then we won't be seeing the things in themselves but only their images.

Olivi elaborates on this conclusion in various ways. Species, he charges, "would veil the thing and impede its being attended to in itself as if present, rather than aid in its being attended to."<sup>47</sup> He concludes his series of epistemological arguments against the species theory with the following passage:

7.11 From the fact that this species is posited in the mind [*acie*] as informing it and as the fundamental source of a cognitive act, it follows that when the mind turns its attention toward the species, it will bend itself back on itself and its own interior rather than extending itself toward the extrinsic object. Therefore as a result of this it will be diverted from seeing the object rather than led toward seeing the object.<sup>48</sup>

We've seen what it would mean to say that the external world is not seen directly. But what could Olivi's grounds be for saying that the external world wouldn't be seen at all? He is probably relying implicitly here on a claim that we've seen him taking advantage of in a number of other contexts as well: "a cognitive power cannot advance to its cognitive action unless before this it actually tends toward the object" (4.5). This, recall, was how he put his claim that cognition requires an active cognitive attention toward the object. If one settles the dilemma of 7.10 by saying that there is no further attention to the external object, then it would follow, given 4.5, that one can't cognize the external object. But in the present context, this principle of attention seems to beg the question. Olivi's evidence for this principle, as we saw in Chapter 4, was based largely on the experience of needing to pay attention to things. If representationalism is true, however, then the proper explanation of such phenomena might be that we need to attend to the *species* of an object in order to cognize that object. So importing this principle from Olivi's theory of cognitive attention won't help his case. In fact, I see no reason why even the naivest proponent of the species theory needs to say that the external object is not seen. One can admit that the external world is not seen directly and still insist that indirectly it is seen. This is

47 "Si aliquid aliud interponeretur inter aspectum potentiae et ipsum obiectum, illud potius velaret rem et impediret eam praesentialiter aspici in se ipsa quam ad hoc adiuvaret" (*II Sent.* q. 58 ad 14; II, 469).

48 "Quarto, quia ex hoc haec species ponitur in acie tanquam ipsam informans et tanquam radicale principium actus cognitivum, ergo quando acies convertet suum aspectum ad eam, reflectet se potius ad se et ad sua interiora quam protendat se versus extrinsecum obiectum. Ergo per hoc potius a videndo obiectum quam ducatur ad videndum obiectum" (*II Sent.* q. 74; III, 123).

a claim that Olivi denies at one point: "it is of the essence of vision that it be immediately present to the things seen."<sup>49</sup> But there's no argument given for why this need be true.

Olivi's remarks in 7.10, 7.11, and n. 47 suggest not only that we would be unable to see or cognize the external world but also that we would not have any knowledge of it. The external world would be veiled, he claims, and we would be diverted from seeing it. Olivi doesn't clearly distinguish the claim that we can't perceive things in themselves from the claim that we can't *know* about things in themselves. One might naturally assume, however, that the former entails the latter, and Olivi's remarks do nothing to discourage this assumption. But as I argued earlier in considering the similar objection raised by Henry of Ghent (7.1), one can admit that we see only the images of things and still hold that we have some knowledge of things in themselves. The example of Hercules' picture, in fact, proved to be more suited as a counterexample to 7.1's claim that, if one perceives only the images of an object, then one can't know anything about that object. It seems, to the contrary, that pictures can tell us a great deal about reality. If there is a well-founded skeptical objection to be made at this point, I don't find it in Olivi.

Olivi makes a remark in 7.10 that deserves special notice: "only the thing's image will be seen *as if it were the thing itself*." The issue raised by this claim has important epistemological implications. Olivi is claiming that (on the species account) even in ordinary cases of perception we would be projecting onto the external world qualities that in fact belong to our images. Given the rest of his account, we can see a sense in which this claim surely follows. When we have the experience we would ordinarily describe as seeing a black car, we form the belief that the car looks black. But if it is our own sensations we see and not the external world, then it will be our sensations that look black, presumably, and we will have projected a quality of these sensations onto the external world. This point remains important even if we consider Olivi mistaken in thinking species would have to be the things seen. Even if species are mere intermediaries in perception, it may still be that we erroneously reach conclusions about the perceptual features of the external world by projecting onto the world the qualities of our sensations. Echoing Olivi, one might want to say that we treat the color red "as if it were [a property of] the thing itself," when in fact nothing in the external world

49 "[D]e essentia visionis est quod sit immediate praesens rebus visis" (*II Sent.* q. 36; I, 649). See also q. 36 (I, 631, 638).

## *Hercules returns*

is red. Olivi is writing several centuries before the distinction between primary and secondary qualities is made. But we can see that Scholastic philosophers didn't need those scientific developments in order to come to these sorts of epistemological problems.

### 4. HERCULES RETURNS (OCKHAM)

As we saw in Chapter 5, Ockham's primary arguments against the species theory are not based on its epistemological consequences. For him, it is the principle of parsimony, combined with the absence of good arguments for the existence of species, that is the best weapon against them. But Ockham, like Olivi, often does make what are, broadly speaking, epistemological arguments. The focus however is rather different.

We saw in Chapter 2 that Ockham rejects the view that species exist intentionally. If there were species at all, he claims, they would have to have the same character as the things they represent. That conclusion must be wrong, however, because it leads to representationalism: the species itself would be the thing immediately seen.

7.12 When several things are of the same character [*rationis*], that which causes the vision more immediately is seen more immediately. Therefore if a species of whiteness is of the same character as whiteness, and (according to you [the defender of species]) more immediately causes the act of seeing, then the species is more immediately seen. This is manifestly false.<sup>50</sup>

This argument tries to show not just that if species were seen, then they would be the things seen immediately. Ockham's conclusion is the more ambitious one that, if there were species at all, then they would be seen, and seen more immediately than the object itself. His specific target here is species *in medio*, the causal intermediaries between us and the external object. Ockham recognizes that a species can't be said to be seen more immediately than the external object merely because it is a causal intermediary. He needs to show that species are the sort of causal intermediaries that would also be perceptual intermediaries.

Ockham's argument is that if a species has "the same character" as the object, then that species, in virtue of being a more immediate cause

50 "Item, quando aliqua sunt eiusdem rationis, illud quod immediatius causat visionem immediatius videtur. Igitur si species albedinis sit eiusdem rationis cum albedine, et immediatius causat actum videndi per te, species immediatius videtur; quod est manifeste falsum" (*Rep.* III.2; *OTh* VI, 48).



of the perception, will be more immediately seen. This gives us a specific criterion for immediacy. If the species is of the same character as the external object and is a more immediate cause of the vision, "then the species is more immediately seen." The causal part of this claim is nothing new; it corresponds closely with the "in virtue of" clause of the criterion considered earlier. But it's not clear what Ockham means by "of the same character." Would merely being corporeal, for instance, make a species be sufficiently the same in character to be itself seen? Or must the species be like the distant object in some further way? Keep in mind that Ockham's adversary here is someone who would claim that species exist *in medio* not intentionally but with the same sort of existence as they have in the object. The kind of case he has in mind is probably such as when a colored object emits light of the same color. Think of a green light source emitting green light. (Aquinas would have said that the light is green intentionally, and not actually green. Ockham's opponent, in contrast, is someone who would say that the intermediary species is actually green.) This sort of example should make us wonder about Ockham's argument. Even if we see the light source through the green light rays, it still seems that we are seeing the light source directly and not seeing the colored rays at all. This is contrary to what Ockham concludes. The argument doesn't seem to do any better in the case of sounds. When I hear a tuning fork, I'm hearing vibrations of a certain frequency, vibrations that pass through the air and into my ear. My eardrum also vibrates at that frequency. Is it obvious in this case that I hear my eardrum immediately rather than the tuning fork? Despite Ockham's argument, the opposite seems obvious. What we hear is the tuning fork. So when we consider specific cases, Ockham's claim does not seem very plausible. For all he has shown, one could accept with equanimity his blunt conclusion that the representationalist thesis is "manifestly false" yet still hold onto the species account.

Elsewhere in his *Sentences* commentary, Ockham argues for his account by attributing a regress to an account on which perception requires an internal object that is itself perceived.<sup>51</sup> (His specific target here is Peter Aureol's theory of apparent being [see Ch. 2].) If apprehending a white object requires apprehending an apparent being, then it seems that this second apprehension will require a further apparent being that will have to be apprehended, and so on. Ockham insists, with plausibility, that the regress can't arbitrarily be stopped

51 *Ord.* 27.3 (*OTH* IV, 240).

after the first apprehension. After all, the account he's opposing makes this general claim, for all  $x$ :

Apprehending  $x$  requires apprehending  $\text{apparent}(x)$ .

But if this is generally true, then it should hold that apprehending  $\text{apparent}(x)$  requires apprehending  $\text{apparent}(\text{apparent}(x))$ , and so on. To stop the regress, this general principle would need to be restricted in some way. But if the claim isn't true of apprehending in general, why hold that it's ever true of apprehending? Why not say that we apprehend the external world immediately, without any intermediaries? That's how Ockham puts his point:

- 7.13 When something is in itself the object of some power just as much as is another, then if the other can appear to the power without any medium between it and the power's act, so for the same reason the object in itself could appear to the power without any medium between the object and the power's act.<sup>52</sup>

This particular argument is cast in terms of Aureol's theory of apparent being. But Ockham's point would apply to any account that analyzes perception in terms of a further, interior perception-like act. Like Olivi, Ockham is challenging the broader way in which cognition gets conceived.

These arguments are just warm-up exercises compared to Ockham's most complex and impressive epistemological argument against species. This argument has to be pieced together from various parts of his *Sentences* commentary, starting with the place where he advances with particular clarity the objection we saw Henry of Ghent consider (7.1). Again, the example is of Hercules and his image. Species could not act as representations of the external world, Ockham argues, unless we have some species-independent way of obtaining knowledge about the world:

- 7.14 The thing represented needs to be cognized in advance – otherwise the representative would never lead to a cognition of the thing represented as to something similar. For example, a statue of Hercules would never lead me to a cognition of Hercules unless I had seen Hercules in advance. Nor can I know otherwise whether the statue is similar to him or not. But according to those positing species, the species is something prior to

52 "Quando aliquid est aequè per se obiectum alicuius potentiae sicut aliud, si illud aliud potest apparere potentiae sine omni medio inter ipsum et actum potentiae, eadem ratione per se obiectum poterit apparere potentiae sine omni medio inter obiectum et actum potentiae" (ibid.).

## *The veil of species*

every act of intellectually cognizing the object. Therefore it cannot be posited on account of the representation of the object.<sup>53</sup>

The role of species cannot be to represent the external world to us, Ockham argues, because we would not, on that basis, know things in themselves. But as we've already seen, the example he uses hardly seems to further his argument. Reflection on the case of Hercules' statue shows that we have more resources for learning about the world than mere perceptual acquaintance. We can infer from other evidence that the image must be a good likeness. So Ockham's argument does not appear terribly compelling.

There's more here than at first appears. As is so often the case with Scholastic authors, given the vast extent of their written works, we can't fully appreciate the above passage without referring to several parallel discussions earlier in Ockham's *Sentences* commentary. First, we need to turn to his discussion of the Trinity and his analysis of vestiges and images. Although the two differ in various ways, Ockham says that both vestiges and images "lead to an apprehension of that of which they are an image or vestige." This can happen in two ways, Ockham explains:

- (i) so that we first know the image or vestige and then, through that knowledge, attain the knowledge of something else; or
- (ii) so that we immediately attain the knowledge of something else, without having knowledge of the image or vestige.<sup>54</sup>

If we apply this distinction to the Hercules argument (7.14), we can see that what Ockham objects to is treating species as images of the first sort. When species are themselves the objects of cognition, he thinks, it becomes hard to see how we can have knowledge of the external world. On Ockham's own account, in contrast, mental representation is understood in terms of type-(ii) images. We could infer that much, even without Ockham's explicitly saying so, on the basis of what he says elsewhere. But in fact, the example he goes on to give of type-(ii) images is of intellect's leading to the knowledge of an intelligible object: "intel-

53 "Item, repraesentatum debet esse prius cognitum; aliter repraesentans nunquam duceret in cognitionem repraesentati tanquam in simile. Exemplum: statua Herculis nunquam duceret me in cognitionem Herculis nisi prius vidissem Herculem; nec aliter possum scire utrum statua sit sibi similis aut non. Sed secundum ponentes speciem, species est aliquid praeivium omni actui intelligendi obiectum, igitur non potest poni propter repraesentationem obiecti" (*Rep.* II.12–13; *OTH* V, 274).

54 *Ord.* 3.9 (*OTH* II, 544). The relevance of this text was brought to my attention by Tabarroni (1989).

lect leads as a cause to the apprehension of any intelligible thing."<sup>55</sup> Here he is willing to say that intellect is a kind of image or vestige. But the crucial point is that there is no mental image that is itself apprehended. That's the wrong picture of mind, because it would put mental representation into category (i).

Images and vestiges that work in the first way fall into two kinds:

- (ia) those that lead to the original apprehension of something else; that is, through them we come to apprehend something we didn't already know; or
- (ib) those that lead merely to the recollection of something we already know.

Again, we can apply this distinction to the Hercules argument (7.14). What we find is that Ockham thinks if there were type-(i) species, then they would have to fall into kind (ib). As he says in 7.14, if we haven't already apprehended what the external object is like, then the species "would never lead to a cognition of the thing represented." This brings us to the crucial epistemological point, which we can now rephrase as follows: could species be images of the (ia) sort? In 7.14, Ockham defends his negative answer to that question only through the dubious analogy to Hercules. In the passage now under consideration, he tells us something further:

7.15 In the first way [ia] an apprehension of the singular is the cause of an apprehension of the universal, and the apprehension of premises is the cause of the apprehension of a conclusion. But in this way the apprehension of one noncomplex thing is never the cause of an original apprehension of another noncomplex thing.<sup>56</sup>

After saying this, Ockham refers the reader back to still another discussion, the prologue to his *Sentences* commentary (q. 9), in which he defends at length the claim that "the noncomplex apprehension of one external thing is never a sufficient cause, even along with intellect, of an original noncomplex apprehension of another thing."<sup>57</sup> To understand

55 "[A]liquod ducere in notitiam alicuius potest intelligi dupliciter. . . . Vel immediate sine notitia, sicut intellectus ducit tamquam causa in notitiam cuiuslibet intelligibilis" (*Ord.* 3.9; *OTh* II, 544).

56 "Primo modo notitia singularis est causa notitiae universalis et notitia praemissarum est causa notitiae conclusionis. Sed isto modo nunquam notitia unius rei incomplexa est causa notitiae primae alterius incomplexae" (*ibid.*).

57 "[U]niversaliter nunquam notitia unius rei extra incomplexa est causa sufficiens, etiam cum intellectu, respectu primae notitiae incomplexae alterius rei" (*Ord.* prol. q. 9; *OTh* I, 240).

why species couldn't belong to type (ia), we need to turn to this discussion. We're beginning to see that his simple and rather feeble-looking argument against species in 7.14 has deep roots in some of his most fundamental philosophical views.

To analyze all of the arguments Ockham makes for this new claim in the prologue (q. 9) would take some time and would require that we assess his complicated views about deduction and abstraction (the cases mentioned in 7.15), as well as induction and causal inference. But although the implications of the Hercules argument go far beyond the constraints of this book, we can see, roughly, what his view is. He says that one noncomplex apprehension can lead to another only if we've already apprehended the second thing. (By 'noncomplex,' he means an apprehension that has as its object some singular thing, rather than a proposition.) Hence, he says that a statue of Hercules can lead us to *remember* what Hercules looks like; but it couldn't lead us to *new* knowledge about his appearances.<sup>58</sup> We can, as 7.15 indicates, make inferences from premises to a conclusion, and this is because that sort of knowledge is complex, being propositional. Moreover, 7.15 says that we can infer from the singular to the universal, but this, I suppose, is possible only on the basis of multiple apprehensions. We couldn't go from just one singular to the universal. (Or so I take it; Ockham doesn't make it obvious how this case is different from that of Hercules.) Likewise, we can't see smoke and thereby know immediately that there must be fire. (He thinks that this is true even if we've had a lot of experience with different fires in the past.) As Ockham explains elsewhere, we can reach the conclusion that there must be fire only if we're prepared to formulate an argument for that conclusion based on intricate premises.<sup>59</sup> But one can't just immediately grasp such connections; one can go from knowledge of one thing to knowledge of another only through inference.

As I understand Ockham, then, he doesn't mean to deny that we might come to know what Hercules looks like on the basis of the statue plus supplementary premises. The same is true for the species theory. If species are the immediate objects of cognition, then we might be able to infer from our knowledge of them to our knowledge of the external world. At any rate, he knows that 7.14 doesn't rule that out. His point in 7.14, which becomes clear only on the basis of complementary passages elsewhere in his work, is precisely that such knowledge of the external

58 *Ord.* 3.9 (*OTH* II, 545).

59 *Rep.* II.16 (*OTH* V, 378–79). On this topic and specifically this passage, see the fine discussion in Adams (1987), pp. 784–98.

### *Hercules returns*

world would be inferential. We wouldn't be *seeing* objects in the external world; rather, we would be drawing inferences about the external world on the basis of our own sensations.

Interestingly, that is precisely the move that Crathorn would make a decade later. According to Crathorn, as we have seen, one has to invoke supplementary premises about God's goodness in order to know anything about the external world. For Ockham, that sort of account is unacceptable, and he would no doubt have been astonished to find Crathorn paying such a high price to hold onto the species theory.

## Chapter 8

### Word and concept

MEDIEVAL philosophy drew a sharp line between sense and intellect. Where we now see a sequence of processes from eye to inner brain that resists any simple bifurcation into the sensory and the intellectual, the medievals saw a clear break. One reason it was natural for them to see such a break is that they took the sensory faculties to operate through physical organs, whereas they took intellectual cognition to be entirely a nonphysical process. But although they split cognition into two separate realms, they nevertheless tended to give parallel accounts of these two realms. Hence, Aquinas postulates both sensible and intelligible species and holds that just as the senses are informed by the former, so intellect is by the latter. Similarly, both Olivi and later Ockham reject sensible as well as intelligible species. The arguments that discredit one discredit the other.

This parallel must not be pushed too far, because there naturally are respects in which intellectual cognition is quite different from sensory cognition. In this last chapter, I turn to how the accounts of Aquinas, Olivi, and Ockham play out at the level of intellect. In each case, these philosophers defend an account of cognitive representation in intellect that is similar to the account they defend in the senses. But each also recognizes that there are special problems at the intellectual level. Aquinas embraces intelligible species and also what he characterizes as another kind of species, the mental word or *verbum*. But special considerations about the nature of intellectual cognition force him in directions that one would not anticipate given his theory of sensory cognition. Aquinas holds that even in standard cases – even when it seems to be the external world we are thinking about – this *verbum* is the object of intellectual cognition. Olivi and Ockham, as one would expect, reject intelligible species and hold that our mental word, or *verbum*, should be identified with intellect's act of cognition. But they, too, face special difficulties in formulating their act theory at the intellectual level.

Ockham, in particular, does not find himself able simply to transfer his act theory from the sensory to the intellectual level. His first inclination, as we saw in Chapter 2, is to postulate a realm of fictive entities that have nonreal objective existence in intellect. We will see in this chapter how he gives these entities up only after he finds a way of making his act theory work at the level of intellect.

In what follows, my aim is to show why Scholastic philosophers were tempted to postulate a mental *verbum* distinct from both intelligible species and acts of cognition. At its heart, this dispute is quite different from the dispute over sensible and intelligible species. This latter dispute over species, as we have seen in earlier chapters, chiefly concerns skepticism, parsimony, and the causal relationship between our cognitive faculties and the external world. The dispute over the mental *verbum*, in contrast, is fueled in large part by concern over abstract entities and abstract knowledge. There was among the Scholastics a remarkable consensus that Platonism regarding universals and propositions is untenable. Obviously, however, we have universal knowledge, as well as propositional knowledge. So some account needs to be given, without appealing to a realm of Platonic objects, of what this sort of knowledge is about. The Scholastics, as we will see, often took the mental *verbum* as the object of universal and propositional knowledge.

Fundamental philosophical issues, then, are at the heart of Scholastic accounts of the *verbum*. Keep in mind, however, that the debate was not based entirely on philosophical considerations. When the Scholastics considered the beginning of the Gospel of John – *In principio erat Verbum, et Verbum erat apud Deum, et Deus erat Verbum* – they would have turned for illumination to Augustine's *De trinitate*, in which he sets out an analogy between the Divine Persons and the human cognitive faculties. Obviously, any Scholastic proposing a philosophical account of the human *verbum* would have been sensitive to theological considerations such as these. It would be hard to say to what extent such considerations influenced philosophical thinking on the subject. It is clear, nevertheless, that the theological importance of the nature of the human *verbum* gave Scholastic theologians many occasions to take up the problem, and they often did so from a purely philosophical standpoint.

I might, in advance, echo a remark Ockham makes at the end of one of his most extended discussions of this topic, that there are "infinitely many other things that could be added."<sup>1</sup> Even putting theological

1 "Istis vidis, quamvis infinita alia possent addi, est redeundum ad expositionem textus Aristotelis" (*ExPer.* I prooem. sec. 10; *Oph* II, 371). There is a vast literature on these



issues to one side, a full philosophical account would, just for starters, immerse us in Scholastic theories of universals and semantics, topics that lie well outside the scope of this book. I will confine myself to discussing how the question of intellectual representation involves us in these further complications. And, as befits a final chapter, I will point to where further discussion might take us.

## 1. WORD AND CONCEPT IN AQUINAS

It was common among Scholastic philosophers to distinguish two kinds of representations at the intellectual level: the intelligible species, which informs possible intellect, and the mental word (*verbum*), which is the product of intellectual cognition. Standardly, the difference between these two representations was taken to be that the intelligible species precedes intellectual cognition, whereas the mental word is the product of that cognition. Sometimes, these two representations are spoken of, respectively, as impressed and expressed species; Aquinas himself licensed such usage by once remarking that the mental word can be thought of as a kind of intelligible species.<sup>2</sup> In a number of ways, the medieval notion of a mental word corresponds with our notion of a concept. Both involve abstract ideas, for one thing. Both are also the *product* of thought: we acquire concepts through intellectual activity. Finally, we sometimes treat concepts as the objects of intellect, inasmuch as we speak of understanding a concept or grasping one. Some Scholastics, as we will see, treated the mental word in a similar way. Indeed, they sometimes used *conceptus* as a synonym for *verbum* in this context.

Aquinas distinguishes two classes of intellectual operation. The first is the acquisition of intelligible species in the possible intellect; as we saw in Chapter 4, he characterizes this as a kind of passive reception. The second class of operations involves intellect's active formation of a mental word. Aquinas draws an analogy to sensory operation: there are two sensory operations parallel to these two classes of intellectual operations. First, the external senses are affected by (and thereby perceive) external objects. Second, the internal senses can form images of absent or nonexistent objects.<sup>3</sup> Aquinas doesn't push the analogy very hard,

topics, particularly as they involve Aquinas. See in particular Lonergan (1967); Meissner (1958); Panaccio (1992).

2 See *Quod.* 5.5.2c, where Aquinas gives a concise account of how the intelligible species differs from the mental word. On the Thomistic vocabulary, and its origin in Aquinas, see the first appendix to Maritain (1959).

3 *ST* 1a 85.2 ad 3; cf. *InJoh.* 1.1.25.

and with good reason. For one thing, sensory activity regularly takes place without imagination or memory. But Aquinas holds that true intellectual cognition requires forming a mental word: "It belongs to the nature of intellective cognition that in cognizing intellect forms something."<sup>4</sup> Intellectual activity without the formation of a mental word is mere thinking without understanding.<sup>5</sup> Aquinas also seems to think of the internal senses as storehouses for images that can be called up when desired. A mental word, in contrast, exists only for as long as it is being produced by an act of intellect: for this word, "esse sit ipsum intelligi."<sup>6</sup> Finally, the images formed by imagination and memory have a relatively straightforward role according to Aquinas: they are likenesses by which we imagine or remember external objects. Aquinas wants to say much the same about mental words. They, too, are likenesses of external things,<sup>7</sup> and we understand the external world through them. In making the latter of these two claims about mental words, Aquinas runs into deep problems.

These problems center around whether the objects of intellectual cognition are external things or mental concepts. On this subject Aquinas makes claims that seem incompatible – even in the same work. In his disputed questions *De potentia*, for example, he says, "the things intellectually cognized first are things outside the soul, to whose intellectual cognition intellect is first drawn."<sup>8</sup> But two questions later in that same work, he claims that the first thing intellectually cognized – the *primum intellectum* – is not the external object but the internal word: "What is intellectually cognized first and per se is what intellect con-

4 "Patet ergo quod in qualibet natura intellectuali necesse est ponere verbum: quia de ratione intelligendi est quod intellectus intelligendo aliquid format; huius autem formatio dicitur verbum; et ideo in omni intelligente oportet ponere verbum" (*InJoh.* I.1.25). See also *De rationibus fidei* ch. 3, in Thomas Aquinas (1882–, vol. 40).

5 "Non enim dicimur intelligere, sed cogitare ad intelligendum, antequam conceptio aliqua in mente nostra stabiliatur" (*QDP* 9.9c).

When *intelligere* is used in this strict sense, it might be better translated as 'to understand' rather than 'to cognize intellectually.' I generally prefer the latter, because I don't think the Scholastics in general, or even Aquinas in particular, regularly use the term in this strict sense.

6 "[A]liud sit esse intentionis intellectae, et aliud intellectus ipsius: cum intentionis intellectae esse sit ipsum intelligi" (*SCG* IV.11.3471). Cf. *SCG* IV.11.3466; *QDV* 4.1 ad 1.

7 "Haec autem intentio intellecta . . . est aliud a specie intelligibili . . . licet utrumque sit rei intellectae similitudo" (*SCG* I.55.444); "[v]erbum semper est ratio et similitudo rei intellectae" (*InJoh.* I.1.25).

8 "Prima enim intellecta sunt res extra animam, in quae primo intellectus intelligenda fertur" (*QDP* 7.9c). In Ch. 6, sec. 4, I discuss this passage at greater length.

ceives in itself of the intellectually cognized thing.”<sup>9</sup> It would be highly implausible to claim that Aquinas is simply contradicting himself in these two passages. For one thing, the passages occur quite close to one another in the same work. Moreover, both of them have parallels elsewhere in his work. On the one hand, there are other places where he says that the *verbum* is itself cognized. In the *De veritate*, for instance, he describes the mental word as “that at which our intellect’s operation is terminated, that which is intellectually cognized, and that which is called the conception of intellect.”<sup>10</sup> In the *Compendium theologiae*, he holds that the mental word is “what is intellectually cognized as it exists in the one cognizing” and is also “what we comprehend through intellect.”<sup>11</sup> Elsewhere, he says, “the thing intellectually cognized is not related to possible intellect as an intelligible species . . . but as something constituted or formed through the operation of intellect”<sup>12</sup> – that is, a mental word. On the other hand, Aquinas makes a point of saying that the external object is the thing cognized. The *Summa contra gentiles* claims that the mental word “is not the thing intellectually cognized . . . but a kind of likeness conceived in intellect of the thing cognized.”<sup>13</sup> And in his commentary on the Gospel of John, he says that the mental word isn’t that *by which* intellect cognizes, but rather that *in which* intellect cognizes (8.8).

The last of these characterizations is perhaps the most illuminating; I will return to look at it in more detail later. The important point to notice for now is that, in ordinary cases of outwardly directed cognition, Aquinas wants to hold both that the mental word is itself the first thing cognized and that external objects are also the first thing cognized. If this is not a contradiction, then we need to discover the sense in which each claim is true. In particular, we need to ask about the more-

9 “Hoc ergo est primo et per se intellectum, quod intellectus in seipso concipit de re intellecta” (QDP 9.5c).

10 “[V]erbum intellectus nostri . . . est id ad quod operatio intellectus nostri terminatur, quod est ipsum intellectum, quod dicitur conceptio intellectus” (QDV 4.2c).

11 “Intellectum autem prout est in intelligente, est verbum quoddam intellectus; hoc enim exteriori verbo significamus quod interius intellectu comprehendimus” (CT I.37).

12 “[R]es intellecta non se habet ad intellectum possibilem ut species intelligibilis. . . . Intellectum autem, sive res intellecta, se habet ut constitutum vel formatum per operationem intellectus” (QDSC 9 ad 6).

13 “Dico autem intencionem intellectam id quod intellectus in seipso concipit de re intellecta. Quae quidem in nobis neque est ipsa res quae intelligitur . . . sed est quaedam similitudo concepta in intellectu de re intellecta” (SCG IV.11.3466). See also SCG I.53.443–44 (8.1).

surprising claim that the mental word is the *primum cognitum*. This claim is surprising because it seems so out of keeping with Aquinas's insistence (examined in Ch. 6) that the sensible and intelligible species is not (in ordinary cases) the thing cognized but rather that by which we cognize. Why (in ordinary cases) should the *verbum* be different? Why should it be cognized? In reply to these questions, we can't make the move that I made in Chapter 6, to say that Aquinas is implicitly committed to an act-object analysis of cognition. Even if that is so, it wouldn't explain why Aquinas speaks of the *verbum* as being cognized. As I pointed out in the last section of Chapter 6, Aquinas is careful to insist that it is ordinarily the external world that we cognize not our own ideas or impressions.

Let us retreat, for the moment, to what is perhaps an easier question: why is there a mental word at all? Notice, in comparison, that Aquinas does not postulate a sensory word. The external senses are actualized solely through sensible species (see 4.2 and following). But intellect's actualization is more complex. Not only is intellect informed by intelligible species, in the way the senses are informed by sensible species. Intellect also forms in itself an inner word. Why is this necessary in the intellectual case but not in the sensory case? An important passage from the *Summa contra gentiles* sheds light on this question; here Aquinas uses the term 'intention' as a synonym for *verbum*:

8.1 Intellect . . . forms in itself a kind of intention of the object cognized. . . . And this is necessary, because intellect cognizes things that are absent and things that are present without distinction. In this respect intellect agrees with imagination. But intellect has this further characteristic, that it also cognizes things as separate from material conditions, without which they don't exist in nature. This couldn't be if intellect did not form for itself the above-mentioned intention.<sup>14</sup>

Notice first that the intention (or mental word) is "of the object cognized" – and here the object cognized is the external object. This, then, is one of those passages in which Aquinas is claiming that external things are the objects of intellect. Intellect, the passage explains, must form in itself an intention of this external object, because it "cognizes

14 "Intellectus, per speciem rei formatus, intelligendo format in seipso quandam intentionem rei intellectae, quae est ratio ipsius quam significat definitio. Et hoc quidem necessarium est: eo quod intellectus intelligit indifferenter rem absentem et praesentem, in quo cum intellectu imaginatio convenit; sed intellectus hoc amplius habet, quod etiam intelligit rem ut separatam a conditionibus materialibus, sine quibus in rerum natura non existit; et hoc non posset esse nisi intellectus sibi intentionem praedictam formaret" (SCG I.53.443).

things that are absent and things that are present without distinction.” Again, Aquinas draws a parallel with imagination, and here the parallel is particularly helpful. Like intellect, imagination cognizes both present and absent things. In order to imagine a winged horse (or even a horse that isn’t immediately present), imagination has to form an image of that horse. There are no such horses in reality (or none in the immediate vicinity), so an internal image must be formed. Intellect works in the same way. When it cognizes things “as separate from material conditions” (by which he means *as universal*), it has to form for itself an intention. The reason for this is that nothing exists in reality as separate from material conditions: there are no mind-independent universals. Both intellect and imagination must form inner representations of their objects, then, because they have cognition of things that are not out there in the world – at least, not out there in the way in which they are cognized. The external senses, in contrast, need not form any such image, because their objects really do exist in reality, as they are cognized to exist.

We need to distinguish between two importantly different ways in which this line of argument could be taken. First, one might take Aquinas’s point to be that, in the sensory case, there is no need for any inner representation at all. It would only be in the cases of imagination and intellectual cognition, then, that an inner representation is required; it is only in these cases that there is either no external object, or at least none that exists as it is cognized to exist. The line of argument would take the following form:

1. All cognition requires an object.
  2. In the ordinary sensory case, there are external objects existing as they are cognized to exist.
  3. In the cases of intellect and imagination, in contrast, no external objects exist as they are cognized to exist.
- ∴ 4. Only in these latter cases is an inner representation required.

The contrast, then, would be between cognitive powers that require an inner representation (intellect, imagination) and those that do not (the external senses). (The reader may recall that in Ch. 2 we saw Aureol and Ockham debate much the same issues.)

This is, I think, a natural way of explaining Aquinas’s point. But it seems to me wrong for several reasons. First, it isn’t consistent with his account of sensory illusion. In such cases, there is no external object that exists as it is cognized to exist. There is a stick, let us say, but it is not bent. Even in these cases, however, the difference between sensory and

intellectual operation remains. Aquinas would not hold that in illusory cases the senses form for themselves a sensory image. He would rather say that the senses receive a distorted sensible species. The senses, as Chapter 4 showed, are in this respect passive. (See also Ch. 5, sec. 3.) But if the senses don't form an image for themselves in illusory cases, why should intellect and imagination have to do so in their operations? The reading proposed in the previous paragraph seems to collapse in the face of sensory illusions.

A second reason for rejecting the above reading is that it exaggerates the distinction between sense perception and other forms of cognition. The interpretation supposes that sensation needs no intervening representations and hence is direct in a way that other kinds of cognition cannot be. But I would contend, for the reasons discussed in Chapter 6, that Aquinas believes there must always be an internal representative object of cognition. Sensation, then, does not differ from intellectual cognition in having some sort of unmediated and direct access to the external world. All cognition is mediated by species or representations.

The difference Aquinas means to draw between the external senses, on the one hand, and intellect and imagination, on the other, is that only the latter form their inner representations. The stress here must be on the word 'form.' Aquinas's point is not that the external senses don't need inner representations but that they don't need to form any kind of representation. This becomes clearer in a passage from the *Quodlibetal Questions*:

8.2 The cognition of an external sense is completed solely through the alteration of the sense by a sense object. Hence it senses through a form that is impressed on it by the sense object. That external sense, however, does not form for itself any sensible form. The imaginative power, however, does do this, and the mental word is similar in a certain respect to this imaginative form.<sup>15</sup>

An external sense cognizes "through a form that is impressed on it"; it does not "form for itself any sensible form" (8.2). Imagination and intellect, in contrast, do form representations in themselves. The basis for this difference is what we've already discussed: the senses cognize objects *as* they exist in the external world; hence, they need not form an image. The external objects themselves are able to create the

15 "Cognitio sensus exterioris perficitur per solam immutationem sensus a sensibili: unde per formam quae sibi a sensibili imprimitur, sentit. Non autem ipse sensus exterior format sibi aliquam formam sensibilem: hoc autem facit vis imaginativa, cuius formae quodammodo simile est verbum intellectus" (*Quod.* 5.5.2 ad 2).

impressions – the sensible species – that serve as the representations and (in a way) the objects of perception. When one sees a brown horse, the senses need not *form* a representation of that horse, because light reflected from the horse is doing that for the senses. In contrast, there are no winged horses to form the imaginary image of Pegasus, so the imagination has to form its own internal object. Likewise, there are no universal horses, so intellect has to form its own representation of horseness. Even in illusory cases, at the sensory level, it is the external object that creates the impression. But in those cases, that impression is distorted by some intervening force. (Hallucinations, cases in which there is no external object at all, are another matter. Aquinas would presumably need to invoke the imagination's active power to explain those cases.) In general, the sort of passive account that works for the external senses cannot possibly work for imagination and intellect, so they need to take active part in the cognitive process, *forming* a representation of the cognitive object.

Aquinas's theory of the *verbum* is thus entwined with his theory of universals. Universals are not out there in reality, ready to be passively taken in, in the way the senses can take in a brown horse. In this respect, it is useful to compare Aquinas's position with the similar account of Henry of Ghent. Even though Henry eliminates intelligible species, he preserves the mental word as a kind of representation distinct from acts of intellect (see Appendix B). Like Aquinas, Henry takes up the problem of why intellect must form in itself a mental word. His motivation is similar to Aquinas's but enlarges on it in one important respect: whereas Aquinas focuses solely on universals in his account of the *verbum*, Henry expands the scope of his argument by considering propositional knowledge as well.

In *Quodlibet* V.26, Henry distinguishes two kinds of intellectual cognition. One involves the apprehension of single concepts: when, for instance, we understand what a human being is. The second involves complex mental representations, that is, propositional knowledge in which an attribute is predicated of a subject. In each of these cases, he argues, intellect has to form a mental word. The argument in the first case runs much like Aquinas's in 8.1. In cases of this sort, for example, when we understand the notion of a human being, we understand human beings as abstract. But there are no abstract human beings in the external world, so we have to form a representation for ourselves:

- 8.3 That which one conceives of things is nothing but a general effigy . . . ; it is not that which exists according to a particular existence in determinate

matter. From this it plainly follows that our intellect has nothing essentially present to it as an object cognized according to the way in which it exists in itself under a particular external existence. . . . And so with respect to all the things that exist in reality our intellect forms a *verbum* that is different from those things.<sup>16</sup>

Henry is less committed to direct realism than Aquinas is. Even in the sensory case, Henry admits sensible species as intermediary representations of a sort (see Intro., n. 25; Ch. 7, sec. 1). So the point is not to draw the contrast that in the sensory case the object itself is present. Rather, as for Aquinas in 8.1 and 8.2, the point is that intellect must *form* its own representation.

The argument in the second case, although it has a similar structure, goes beyond what we saw in Aquinas. The mental word is needed to represent complex states of affairs, that is, propositional knowledge. Henry's claim is that nothing complex exists in reality:

- 8.4 In the second way no object is present to our thoughts as if by itself, for nothing exists in reality except under an incomplex aspect. But that which is present to our thoughts under some complex aspect exists as a result of [intellect's] operation. Hence every mental word concerned with a composite thought is in some way different from the thing regarding which it is conceived.<sup>17</sup>

It seems obvious that there are some complex things in the world, an observation that would seem to conflict with Henry's claim that "nothing exists in reality except under an incomplex aspect" (8.4). On the one hand, there are physically complex bodies composed out of multiple physical parts. On the other hand, there are metaphysically complex objects composed out of various metaphysical parts. Books, houses, people – pretty much anything one might think of – would seem to qualify as complex in both ways. Substances in general are complex

16 "Quare cum illud quod de rebus concipit non est nisi effigies generalis vel secundum conditiones particulares quae sunt hic et nunc: vel ut abstractum ab eis: non autem id quod est secundum esse particulare in materia determinata: igitur de intellectu nostro planum est quod nihil sibi habet praesens per essentiam ut obiectum cognitum secundum modum quo in se existit sub esse particulari extra. . . . Et sic de omnibus quae sunt in rebus format intellectus noster verbum aliud ab eis" (*Quod. V.26, 205rN*). See also Appendix B, n. 11.

17 "Secundo modo nulla res quasi ex se praesens est intelligentiae: quia nihil est in rebus nisi sub ratione incomplexi. Sed quod sub ratione aliquae complexi praesens est intelligentiae: hoc est per eius operationem. Ita quod verbum omne intelligentiae collativae quodammodo aliud est a re de qua concipitur" (*ibid.*; 205rN).



things. Henry clearly can't intend to deny all this. His claim, I believe, is rather that substances and the things contained in substances are the *only* things in the world. There are not, further, any complex states of affairs. Our "composite thoughts" (8.4) are about such states of affairs or propositions. But no such things exist externally. This is clearly the case for general states of affairs that involve universals, such as *cats climb trees*. The considerations of 8.3 against universals in re would rule out propositions of this sort containing universals. But Henry also means to deny the existence of particular states of affairs, such as *the cat is in the tree* or *the book is being repaired at the bindery*. There is no object that corresponds to either description of the world – there are only various discrete objects related in various ways. When we understand the world in such complex ways, we have to form representations for ourselves out of the varying relationships among the noncomplex objects in the world. There is no proposition or state of affairs that might have produced the corresponding thought in intellect.

Henry takes this latter line of argument from propositions (8.4) to have implications like those of the former argument from universals (8.3). Jointly, they make the case for why intellect must form for itself a mental word. In section 3, we will see that Henry's distinction between these two issues anticipates the way Ockham conceives the problem. For Ockham, the argument from propositions is the real sticking point in his accepting the act theory at the level of intellect. Aquinas, in contrast, although he draws the same distinction as Henry between simple and complex intellectual judgments, doesn't emphasize this argument from propositions.<sup>18</sup>

Each of Henry's arguments makes a crucial assumption, one that is implicit in Aquinas as well. Both philosophers assume that, to understand the world as being a certain way, we have to have a representation of the world's being that way. Hence, to conceive of human beings in the abstract, we have to have a representation of them as abstract. To conceive of the cat's being in the tree, we must have a representation of that complex fact. For Henry, as for Aquinas, the external world remains the object of intellectual and sensory thought: "that very thing, numerically the same, is the object of particular sight, the imaginative

18 For the distinction between simple and complex acts of intellect, see, e.g., *QDSC* 9 ad 6; *ST* 1a 85.1 ad 1; *InJoh.* I.1.25. As for Aquinas's account of propositional knowledge, see his interesting discussion at *ST* 1a 85.5 ad 3. There he distinguishes two kinds of composition in physical things: accident–subject and form–matter. See Klima (1993) on Aquinas's semantics for propositions and universals.

power, and intellect.”<sup>19</sup> But the object itself, in its essence, can’t be present to the human intellect, Henry says – “this is part of our imperfection” – and so there always has to be some internal representation of that object, taking its place.<sup>20</sup> The arguments we have considered show why, if there is to be a mental word, intellect must form it. But they are silent with respect to the antecedent: they don’t show that there must be a mental word. At this point, we might look ahead to Olivi’s treatment of this topic. In previous chapters, we have seen how Olivi challenges the assumption that cognition always requires a corresponding representation distinct from the act of cognition. As we will see in section 2, he applies this reasoning to the mental word as well. Why (he asks) should we think that the mental word is some kind of representation distinct from the act of intellect? Olivi would grant that intellect, like imagination, has to form concepts. What this means, he would say, is that intellect doesn’t just passively receive impressions but has to work to generate its concepts on the basis of sensory input. He would insist, though, that this difference between sense and intellect does not show that there must be a mental word distinct from the activity of intellect. Just as the sensible species is nothing other than the act of sensation, so the mental word is nothing other than the act of understanding.

There is a sense in which I think Aquinas has no answer to Olivi on this point. One of my principal aims has been to show that many of the questions about the mind that Olivi poses are ones to which his predecessors had no good answers. It was Olivi’s insight, in particular, to see that cognition need not involve inner representations that are distinct from the act of cognition. This act–object doctrine, I have claimed, is one of the fundamental assumptions of Aquinas’s philosophy of mind. But at the intellectual level, there is more to say on Aquinas’s behalf; there are special considerations that give Aquinas reason to treat the *verbum* as he does. These considerations should now emerge, as we return to the original problem of why Aquinas treats this mental word as the object of intellectual cognition.

19 “Penitus enim idipsum numero obiectum est visus particularis et imaginativae et intellectus” (*Quod*. IV.21; 137r1). Cf. *ibid.*, 137vN.

20 “Quia autem in creaturis requiritur species alia a re, ut ratio intelligendi sive repraesentativa sive ut impressiva: hoc est imperfectionis ex parte intelligentis: quia scilicet essentia eius non est ratio exemplaris in cognoscendo omnia alia a se” (*Quod*. IV.7; 94vA).

In an illuminating passage from his disputed question *De spiritualibus creaturis*, Aquinas says that, when something is cognized by two different intellects, there is a sense in which the same thing is being cognized and a sense in which two different things are being cognized. Our problem is why he should concede the latter at all. He draws an analogy to sight: "It's like a case in which two people see one wall. It is the same thing seen, with reference to the thing that is seen, but two different things, with respect to the different visions."<sup>21</sup> In the case of sight, however, it's only in the most improper sense that two different things are seen. As he says, the "two people see *one* wall," and it would be not just contrary to Aquinas's own views but contrary to all common sense to hold that there is some respect in which they see two different walls. Things aren't so straightforward in the intellectual case. Aquinas immediately continues by conceding that there at least "seems to be a greater difficulty" for the Aristotelian:

- 8.5 [The example] would run entirely the same in the case of intellect if (as the Platonists claimed) the thing that is intellectually cognized subsisted outside the soul as does the thing that is seen. But there seems to be a greater difficulty as regards the opinion of Aristotle.<sup>22</sup>

Platonists about universals can give a much simpler account at the intellectual level. They can draw a direct analogy between sensory and intellectual cognition: one understands the external Platonic form just as one sees the wall. The seemingly "greater difficulty" for the Aristotelian comes from Aristotle's (i.e., Aquinas's) moderate realism about universals. On the one hand, intellect understands universals. On the other, nothing exists as universal outside intellect. But if universals exist only in individual minds then it seems as if each of us will have our own private intellectual objects. Hence, the threat – the "greater difficulty" Aquinas refers to – is epistemological idealism, the view that our knowledge doesn't extend beyond our inner concepts.

Although there seems to be this greater difficulty, Aquinas immediately adds that in fact, for both Plato and Aristotle, "the account is the same when one considers it rightly." Both Plato and Aristotle agree that we have intellectual knowledge of external objects.

21 "Sicut si duo videant unum parietem, est eadem res visa ex parte rei quae videtur, alia tamen et alia secundum diversas visiones" (*QDSC* 9 ad 6).

22 "Et omnino simile esset ex parte intellectus, si res quae intelligitur subsisteret extra animam sicut res quae videtur, ut platonici posuerunt. Sed secundum opinionem Aristotelis videtur habere maiorem difficultatem" (*ibid.*).

- 8.6 The only difference between them is that Plato claimed that the thing that is intellectually cognized has existence outside the soul in the same way as intellect intellectually cognizes it (i.e., as abstract and common), whereas Aristotle claimed that the thing that is cognized exists outside the soul, but in a different way. For it is intellectually cognized abstractly, and it has existence concretely.<sup>23</sup>

So the Platonist seems to be in a better position than the Aristotelian only insofar as the Platonist can hold that the objects of intellectual cognition exist outside the soul in the very same way as they are cognized to exist. The objects of knowledge are represented as abstract and common, and in fact (for Aquinas's Platonist) they are abstract and common. The Aristotelian, in contrast, has to hold that although the objects of intellectual cognition exist concretely outside the soul, they are represented internally as abstract and common. This is the extent of the problem, and Aquinas's view is that it's no real problem at all.

Before considering why the problem is merely apparent, we should discuss exactly what the problem appears to be. There are at least two apparent problems here. First, the Aristotelian position raises the question of whether intellectual cognition is veridical. Aquinas responds to this issue in a well-known passage from the *Summa theologiae*'s "Treatise on Human Nature," in which he explains how intellect can truly (i.e., veridically) apprehend the nature of an object while abstracting from that object's particular conditions. This, he says, is no more problematic than thinking about the color of an apple without thinking about the apple itself.<sup>24</sup>

The second, more-complex question is how we can still speak of intellectually apprehending the external world when there is nothing abstract or common in that world. The philosophical problem is familiar. When I know that  $2 + 3 = 5$  or that all human beings are animals, what is it that I know? It is hard to see how the right answer could be as simple as the corresponding answer would be in the case of sensory cognition. In that case, it is obvious that when I see a red ball I am seeing something in the external world, and I have knowledge about the exter-

23 "Sed secundum opinionem Aristotelis videtur habere maiorem difficultatem, licet sit eadem ratio, si quis recte inspiciat. Non enim est differentia inter Aristotelem et Platonem, nisi in hoc quod Plato posuit quod res quae intelligitur, eodem modo esse habet extra animam quo modo eam intellectus intelligit, idest ut abstracta et communis; Aristoteles vero posuit rem quae intelligitur, esse extra animam, sed alio modo; quia intelligitur abstracte, et habet esse concrete; et sicut secundum Platonem ipsa res quae intelligitur est extra ipsam animam, ita secundum Aristotelem" (ibid.).

24 *ST* 1a 85.1 ad 1. Cf. *SCG* II.75.1551.

nal world. It seems that a similar answer ought to be given in the case of intellectual cognition. Surely, at least, my knowledge that all human beings are animals is knowledge about the world around me. But it does not seem that the natural kind *animal* exists in the external world, so a question arises as to what exactly that knowledge is about.

It is this second problem that forces Aquinas to speak, as it seems, out of both sides of his mouth. On the one hand, he holds that the *verbum* is the object of intellectual cognition. He is moved to assert this for the same reasons he is committed to intellect's forming a mental word: because of his claims (cf. 8.1) that (1) the proper objects of intellect are universals and (2) universals exist only in intellect. Despite this commitment, he also wants to treat intellectual cognition along the same lines as sensory cognition. Hence, he gives the analogy of two people seeing a wall, and he insists that in the intellectual case as well there is just one thing being cognized – the external object. He admits that there seems to be a greater difficulty, given his Aristotelianism, but he says that this difficulty is merely apparent.

Can Aquinas really have it both ways? Why is the difficulty merely apparent? One sort of answer to these questions would emphasize the doctrine of formal identity between representation and object (as discussed in Ch. 3 and Appendix A). The natures of physical objects exist naturally in the external world and intentionally or spiritually in intellect. It is nevertheless the same nature – that is to say, formally the same – instantiated in numerically different substances in different ways. Identity at this abstract level would, then, give Aquinas license to treat either the internal word or external reality as the object of intellectual cognition. Perhaps this is part of the point of 8.6. It's not that the abstract concept in intellect does not exist externally but that it exists "in a different way."

Another line of thought would employ the pragmatic considerations I described in Chapter 6: because our beliefs and desires are typically directed at the world, and because our knowledge and sciences are developed to explain the world, we should treat the world as the primary object of intellect. So Aquinas tells us,

8.7 What is intellectually cognized . . . is the thing's very nature or quiddity. For natural science and other sciences are about things, not about intellectually cognized species.<sup>25</sup>

25 "Est ergo dicendum secundum sententiam Aristotelis quod intellectum quod est unum est ipsa natura vel quidditas rei; de rebus enim est scientia naturalis et aliae scientiae, non de speciebus intellectis" (*DUI* 5,186–90 [sec. 110]). Cf. *ST* 1a 85.2c; *SCG* II.75.1550.

On this line of interpretation, we could say that although the proper objects of intellect exist as such only within intellect, still intellect's real interest ordinarily lies elsewhere.

Yet there is, I think, a still more fundamental sense in which the *verbum*, for Aquinas, both is and is not the object of intellectual activity. We have already considered (briefly, in Ch. 4, sec. 3) how, on his account, intellect (hence the *verbum*) must be involved in ordinary cases of perception. The external senses, being entirely passive, make no contribution to the content of our perceptions. Instead, it is intellect that gives conceptual form to our perceptions. Seeing a ball may not necessarily require any kind of conceptualization, but seeing that the ball is red surely does. To grasp that the object is red, one needs the concept of *red*; to grasp that it is a ball, one needs the concept *ball*. Aquinas doesn't say anything that approaches the Kantian (there is no hint that without such concepts our perceptions are blind), and it would be difficult, given the lack of textual evidence on this point, to assess the precise extent to which he thinks intellect is involved in ordinary perception. But his theory of sensation does commit him to giving a prominent role at that level to intellect and consequently to the mental word.

In this way, then, the role of the mental word is not that of a mere intermediary, like an intelligible species. Even when our focus is outward, the mental word is not merely that *by which* we understand external objects. Rather, it is that *in which* we understand the world. This is the way he puts it in his commentary on the Gospel of John:

8.8 The interior word . . . is compared to intellect not as that *by which* intellect cognizes, but rather as that *in which* intellect cognizes, because in it, expressed and formed, intellect sees the nature of the thing cognized.<sup>26</sup>

The mental word is "expressed and formed," a phrase that highlights intellect's active role in fixing the content of the concept. At the intellectual level, our impressions are not just passively received, as occurs at the most basic sensory level, but are shaped by the way we conceptualize those impressions. The role of the *verbum* is thus different from that of the intelligible species. The latter, although it is in a sense the object of intellectual cognition (or so I've claimed), operates at a nonconscious level save in exceptional cases of introspection. The role of the mental word is more visible, to take up the visual metaphor in 8.8. We *see* the natures of things in the *verbum*. This mental word is our inner represen-

26 "[V]erbum interius . . . comparatur ad intellectum, non sicut quo intellectus intelligit, sed sicut in quo intelligit; quia in ipso expresso et formato videt naturam rei intellectae" (*InJoh.* I.1.25).

tation of the world, but it's not a mere intermediary. The mental word provides the conceptual framework through which we understand the world.<sup>27</sup>

The visual metaphor of 8.8 – that external things are seen in the mental word – can be misleading. It suggests that the central philosophical issue here is the problem of direct versus representational realism – that is, whether we apprehend the external world directly or indirectly.<sup>28</sup> But although the problem of direct realism was very much involved in the debate over sensible and intelligible species (as we have seen in the last two chapters), that is not the central issue here. Here, the problem is to give an account of abstract knowledge without falling into Platonism on the one hand or idealism on the other. The reason Aquinas does not maintain without qualification that things in the external world are the objects of intellect is that nothing abstract exists in the external world. The proper objects of intellect are universals, but universals, as such, exist only in intellect. To the extent, then, that purely abstract thought is at issue, the objects of intellect must be internal. Moreover, to the extent that the external world is the object of intellect, our understanding is always mediated by our concepts. Hence, direct realism is not the issue: for Aquinas, in this context, to make our access more direct would be to make it literally unintelligible.

We can now see something of why Aquinas might have felt he needed this *verbum* as an inner representation. If the objects of knowledge are universals, yet universals exist only in the mind, then it looks as if there needs to be some inner object for intellectual thought, beyond the act of thinking itself. If the Aristotelian, on denying universals in re, is not to face a greater difficulty than the Platonist does, then it seems the Aristotelian will need universals in intellect. This is not a line of thought that Aquinas brings into sharp focus, but considerations of this sort at least implicitly drive him to treat the *verbum* as the mental repre-

27 Henry of Ghent, interestingly enough, describes the *verbum* in quite similar terms: "Proprium enim obiectum intellectus est quod quid est. Quod quidem, ut in actuali notitia existit, est quasi quaedam lux in intellectu concepta, in qua rem mentaliter videt et discernit, quod appellatur verbum eius" (*Quod.* II.6; VI, 32).

28 Claude Panaccio, in an otherwise excellent article, reads the debate in this way. According to Panaccio (1992), "what is fundamentally at stake in this whole debate [over the status of the mental word] is whether a special mental *object* of intellection is to be posited as intermediate between the cognitive act and the external thing, or whether the external thing itself is to be seen as the proper and immediate object of cognition. . . . The rejection of the (Thomistic) duality thesis is, it seems to me, ultimately motivated by a sort of epistemological direct realism" (p. 132).

sentation of abstract objects. In later generations, in the work of Olivi and especially Ockham, this line of thought takes clearer shape.

## 2. CONCEPTS AS ACTS (OLIVI)

In the course of the arguments against species, in his *Sentences* commentary, Olivi notes that some have postulated a certain kind of mental representation in intellect, “a kind of concept or *verbum*.” He doesn’t specifically argue against this sort of account there, but he refers his readers to his commentary on the Gospel of John:

- 8.9 Some maintain that a kind of concept, or word, is formed through an abstractive, investigative, or inventive consideration, in which real objects are intellectually cognized as in a mirror. For this is what they call the *primum intellectum* and the immediate object; and it is a kind of intention, concept, and defining characterization [*ratio*] of things. But in the beginning of the *Lecture on John*, where the eternal Word of God is discussed, I proved that this ought not to be called a word, nor can it be anything other than the act of consideration itself or a memory species formed through that act.<sup>29</sup>

As usual, the opposition goes unnamed. It seems likely from the language of the passage, however, that Aquinas was one of the targets. Aquinas does, as we’ve seen, refer to the mental word as *primum intellectum* (n. 9), intention (8.1, nn. 6, 7, 13), concept (nn. 5, 10), and *ratio* (n. 7). Interestingly, he does not often, if ever, claim that objects are cognized in the inner word “as in a mirror.” He does say that external objects are cognized in phantasms as in a mirror.<sup>30</sup> Moreover, he often considers the sense in which the Divine Word is a mirror through which we see God in this life.<sup>31</sup> (In saying this, Aquinas is spelling out the famous passage from I Corinthians 13, 12: “For now we see through a *mirror*, darkly.”) But, as far as I know, the only place where Aquinas may have compared the human mental word to a mirror is in the short

29 “Sciendum tamen quod quidam ponunt quendam conceptum seu verbum per considerationem abstractivam aut investigativam seu adinventivam formari, in quo tanquam in speculo intelliguntur realia obiecta. Hoc enim vocant primum intellectum et immediatum obiectum, et est quaedam intentio et conceptio et ratio rerum. Quod autem hoc non debeat dici verbum nec possit esse aliud quam ipse actus considerationis aut quam species memorialis per ipsum formata, probavi in principio *Lecturae super Iohannem* ubi agitur de Verbo Dei aeterno” (*II Sent.* q. 74; III, 120–21).

30 *QDV* 2.6c.

31 See, e.g., *III Sent.* 14.1.1 obj. 1, ad 1; *QDV* 8.16 obj. 13, ad 13, 20.5c.



treatise *De natura verbi intellectus*. This, moreover, may not be a genuine work of Aquinas's at all.<sup>32</sup>

At any rate, Olivi's account of the way some have put forward a theory of the *verbum* corresponds substantially to Aquinas's view, and no doubt to others as well. Moreover, in the *Lecture on John*, Olivi does give an extended critique of this sort of theory. Part of his argument is theological. If the *verbum* is what these people say it is, then

- 8.10 the name *verbum* and its character is unsuitably and perhaps erroneously applied and carried over to divine things. For the word of God the Father is not formed by the Father as if it were a kind of mirror and first object in which and through which the Father inspects those things that he intellectually cognizes.<sup>33</sup>

This argument, if correct, wouldn't show that there is no such inner word. But it would show that from a theological perspective such an inner object shouldn't be called the *verbum*, inasmuch as that name should be reserved for whatever in the human intellect is analogous with the Divine Word. The core of Olivi's argument, however, is philosophical: his aim is to show that there is something incoherent or at least superfluous in the *verbum* as conceived by his opponents.

Olivi begins this aspect of the argument in his characteristic style, by setting out a series of apparent inconsistencies in his opponents' account. (This is how, elsewhere, he makes hash of the doctrine of divine illumination, all the while mildly insisting that he is not denying that doctrine "of thoroughly serious men" but merely setting forth "things to be guarded against" in any such theory.)<sup>34</sup> Here he begins with the following dilemma: on the one hand, the *verbum* is said to be the product of intellectual cognition. On the other hand, it is said to be required for cognition as the *primum intellectum*. How can it be both? He has his opponents give the following reply:

- 8.11 They say that the thing is first thought by a simple apprehension as present in itself or in a phantasm; after that intellect forms the word

32 "[E]t hoc totum expressum est verbum. . . . est enim tanquam speculum in quo res cernitur" (ch. 1; in Thomas Aquinas 1954b). On the question of authenticity see Weisheipl (1974) pp. 403-4.

33 "Quarto deficit quoad propositum, quia incongrue et forsitan erronee nomen et rationem verbi ad divina applicat et transsumit. Verbum enim Dei Patris non est formatum a Patre quasi quoddam speculum et quoddam primum obiectum in quo et per quod Pater ea quae intelligit speculetur" (*TDV* 6.2.4).

34 Peter John Olivi (1922-26), appendix q. 2 (III, 500-17). See Pasnau (1994), Ch. 3, sec. 4.

within itself. And then when the thing is absent it thinks of the thing as in a mirror. Therefore the first thought precedes the word, the second follows it.<sup>35</sup>

First, then, intellect engages in cognition and forms an inner word. Later, when the external thing is absent, intellect treats that word as an inner object. The critical move he makes here, while speaking for his opponents, is to suppose that the inner word will be an object of cognition only when the external object is absent. This leads him to argue that his opponents are treating as *verbum* what is merely a memory species.

Olivi himself accepts the existence of such species in intellectual memory, as the end of 8.9 makes clear. This marks something of a concession to his opponents, inasmuch as it puts him in agreement that conceptual thought produces some internal representations. An essential difference remains, however, between his account and his opponents. His opponents hold that the mental word, once formed, becomes a kind of object of intellectual thought; it is the mirror through which external things are understood. The memory species, in contrast, plays no such role. These species explain our ability to retain concepts over time, but they fulfill this role without themselves being the objects of intellect.

Olivi formulates a dilemma for his opponents: "The word that they postulate either is something remaining in the mind after the act of every thought or stays only while we actually think." If it's the first of these, then "it doesn't seem to be anything other than a memory species." If the second, then they can't give the above reply (8.11) to the initial dilemma.<sup>36</sup> That reply held that the inner word is stored in intellect as a potential object for later cognitive acts. Aquinas would opt for the dilemma's second horn. The mental word, he holds, exists only as long as it is being thought (n.6). He would also have resisted the assimilation of the *verbum* to a memory species. For him, as we have seen, an inner word is always formed when intellect understands (nn. 4–5).

35 "[D]icunt quod res primo cogitatur simplici apprehensione tanquam praesens in se vel in phantasmate; et tandem intellectus format verbum apud se; et tunc re absente cogitat rem tanquam in speculo. Prima ergo cogitatio praecedat verbum; secunda autem sequitur ipsum" (TDV 6.1).

36 "Verbum enim quod ponunt aut est aliquid in mente remanens post actum omnino cogitationis aut manet solum dum actu cogitamus. Si primo modo, tunc non videtur esse aliud quam species memorialis quae post actum cogitationis in memoria retinetur. . . . Si autem secundo modo solum manere ponatur tunc ipsi sibi met contradicunt, quia ipsi ponunt quod verbum serviat de primo obiecto non cogitationi illi per quam formatur, sed potius cuidam alteri quae illi primae succedit" (TDV 6.2.2).

When I understand that a horse is an animal, I form the corresponding inner words; it is irrelevant whether there are any horses in the vicinity.

This horn of the dilemma leaves Aquinas with the problem of explaining how the inner word can both be produced by intellect and be the object of intellectual cognition. We might invoke an example Aquinas often gives, of an architect designing a house (cf.3.2). At first, the plans are sketchy and inchoate, with unsolved problems throughout. Over time, the plan takes a more-definite form, the problems become resolved, and the architect arrives at a complete design. At this point, we can speak of understanding. In a sense, it is the design itself that is the object of understanding. As yet there is no physical house; when you want to know how much light the master bedroom will get, you consult the design. The design both is formed by intellect and is the object of intellect.

The example is not entirely satisfactory. We can imagine Olivi insisting that this design is no more than a kind of aid to intellectual memory – at least if we are thinking of a physical design put on paper. But what if we imagine the architect having the whole thing in mind at once? Even then, Olivi might fairly insist that all those details would involve a substantial amount of memory. Not every detail of the house could be thought of at once. We can, however, make the example come out right for Aquinas if we imagine a single conceptual difficulty plaguing the design. After long contemplation, the architect suddenly sees a solution. Aquinas would describe this sort of breakthrough in terms of the formation of a mental word. And we might easily imagine that, after having formulated the solution, the architect studies it for a while, mentally, viewing the solution from various angles in order to make sure there is no unforeseen difficulty.

Here again, the design is both formed by intellect and is the object of intellect. And Olivi can hardly complain that this is a mere memory image. But against this sort of account, he has another line of argument: “There is no necessity or utility in postulating such a *verbum*.”<sup>37</sup> He considers two parallel lines of argument that a proponent of the mental word might make against this charge of superfluity:

8.12 First, . . . we experience in ourselves that we form in our mind new concepts of many propositions and conclusions. These concepts remain in us later and we return to them when we want to remember such proposi-

37 “Tertio quoad suum fulcimentum deficit, quia nulla ratione fulcitur. Nulla enim est necessitas aut utilitas ponere tale verbum” (TDV 6.2.3).

tions. . . . Second, . . . from individuals seen or imagined by us we abstract and form defining characterizations [*rationes*] of their universal features, . . . and we come back to these when we wish to inspect such universal features.<sup>38</sup>

Each argument appeals to our experience of forming abstract ideas within ourselves: in the first case, propositional ideas; in the second, universals. (In 8.3 and 8.4, we saw Henry of Ghent make precisely these two kinds of argument.) Olivi's opponents claim, of course, that what is formed in both cases is a mental word. Olivi replies that no such inner word is necessary. In each case, we have an abstract act of cognition, but that doesn't mean that some object is formed in intellect with intentional existence. Indeed, "nothing serving as an object is really abstracted or formed that differs from the act of consideration already mentioned."<sup>39</sup> Of course, there are memory species, he grants, and this explains why we are able to remember prior acts of intellect. But if we confine our attention to an occurrent act of intellect, then there is no need for any inner object of that act (other than, perhaps, memory species). If anything, he adds, such an object "would be an impediment,"<sup>40</sup> alluding to the epistemological difficulties that he takes up more fully in other contexts (see 7.9–7.11). This, then, is how he would handle a case like Aquinas's architect.

Olivi is willing to allow that the object of a conceptual thought – some proposition, for instance, or a universal – "exists in that act intentionally or representatively."<sup>41</sup> His point is that the thought will have a certain representational content, and in virtue of that content one can speak of the object itself as existing intentionally in the thought. Notice that the notion of intentional existence is invoked in an effort to explain

38 "Prima . . . quia nos in nobis experimur nos in mente nostra formare novos conceptus et plurium propositionum et conclusionum, qui conceptus in nobis postmodum manent et ad ipsos redimus cum talium propositionum volumus recordari. . . . Secunda ratio est quia quando de individujs a nobis visis vel imaginatis universalium suorum rationes abstrahimus et formamus, tunc huiusmodi rationes intra nos concipimus et formamus. Et ad ipsas recurrimus cum huiusmodi universalialia volumus speculari" (*TDV* 6.2.3).

39 ". . . per hoc autem nihil obiectivum realiter abstrahitur vel formatur quod differat a praefatae considerationis actu" (*TDV* 6.2.3).

40 "Nulla est necessitas alterius obiectivi speculi in quo res ipsi intellectui praesententur. Immo, potius esset ad impedimentum" (*TDV* 6.2.3).

41 "In eius quidem interna conceptione et formatione non solum ipse actus concipitur sed etiam suum obiectum, in quantum intentionaliter seu repraesentative in ipso actu existit" (*TDV* 6.2.3).

how thought can have content without having an internal object to determine that content. For Olivi, such talk of intentionality is not a way of reintroducing internal objects of thought. In the work of many later Scholastics, in contrast, the notion of intentionality provides an excuse for introducing objects of thought and perception that do have existence but not real existence (see Ch. 2). He isn't resorting to such mysteries; intentionality is simply a way of referring to representational content.

Olivi's position on this topic is clearly of a piece with his line on sensible and intelligible species. Such species are mere impediments and contribute nothing to an explanation of cognition. Mental representation requires no representational object, because an act of cognition by itself has representational content. But in this discussion of the *verbum*, Olivi ignores what Aquinas pointed to as the apparently "greater difficulty" that confronts non-Platonist accounts of intellectual cognition (8.5). Direct realism is attractive as a theory of sensation because it seems clear what the objects of sensation are. For all but the Platonist, however, it is not easy to explain what the objects of intellectual cognition will be. Olivi is by no means a Platonist on this topic: he denies that universals exist outside the mind, and indeed his position on this subject seems closer to Ockham's nominalism than to Aquinas's moderate realism.<sup>42</sup> Nevertheless, he speaks as if he has an unproblematic account of how the cognition of universal concepts (not to mention propositions) concerns the external world. He speaks of intellect's "attending to and considering the real character of a common or specific nature,"<sup>43</sup> but he has nothing to say about what this nature is to which intellect attends. He simply doesn't seem to have seen this fundamental motivation for postulating such a mental word.

Olivi's proposal thus comes up short at the crucial point. Despite the intuitive plausibility of his attempt to eliminate the inner word as a distinct object of cognition, he fails to offer any kind of alternative to the *verbum*. On this point, the dispute between Olivi and Aquinas has to be considered at best a standoff. For a fully articulated attempt to eliminate inner mental objects while maintaining a non-Platonist position on abstract entities, we have to turn to William Ockham.

42 *II Sent.* q. 13 (I, 231–55).

43 "... prima abstractio rationum universalium fit in solo actu abstractivae considerationis realem rationem naturae communis vel specificae absque ratione suae individuationis attendentis et considerantis" (*IDV* 6.2.3).

### 3. ABANDONING FICTA (OCKHAM)

All of Ockham's philosophical tendencies, it would seem, should have led him away from the *verbum* as Aquinas conceived of it. His parsimony would seem to argue against it, as would his tendency toward direct realism in epistemology, his empiricist constraint on evidence (see 5.4), and his general rejection of the act-object model of cognition. Here, as elsewhere, we would expect to see him following close behind his earlier confrère, Olivi. But, astonishingly, Ockham at first not only embraces the *verbum* but attributes to it a peculiar ontology of objective existence (already considered in Ch. 2), a position that seems if anything less parsimonious and empirically defensible than Aquinas's position. Eventually, he does move to a position like Olivi's but only with great difficulty and at considerable expense. Ockham saw, as Olivi did not, the deep difficulties regarding abstract knowledge that plague a rejection of mental representation at this level.

Ockham says that some questions concerning the mental word are substantive, some merely verbal. One merely verbal question asks which of the things in the mind "ought more properly to be called the *verbum*."<sup>44</sup> It's rather surprising that he should consider this question entirely verbal, especially in his *Sentences* commentary – a work of theology, formally speaking. Given the Augustinian analogy of the human intellect to the Trinity, it seems that one's answer to this question would have wide-ranging theological implications. But the question is merely verbal in the sense that it concerns merely how we want to apply the term *verbum*. That terminological decision need not have any impact on the account one gives of mind or knowledge. Hence, it is from a philosophical perspective that the problem is merely verbal: it is a measure of the extent to which Ockham was first and foremost a philosopher that even in his *Sentences* commentary he sees the problem this way.

Ockham picks out two principal substantive issues that concern the mental word. One is the question of *what* things exist in intellect. The second is the question of *how* they exist.<sup>45</sup> Over the course of his career, Ockham changed his mind on both questions. We've already seen, in Chapter 2 (sec. 4), how he abandoned the notion of a "little world of

44 "Difficultas una, quae mihi videtur vocalis, est ista: supponendo quod verbum est aliquod illorum quae sunt in mente – sive subiective sive obiective – quid illorum magis proprie debet vocari verbum?" (*Ord.* 27.2; *OTh* IV, 197).

45 *Ord.* 27.2 (*OTh* IV, 197).

objective entities" (2.12). At the outset of his career, Ockham had defended such objective beings, which he called *ficta*, and which he claimed were neither "true qualities" nor "real entities" (2.10), yet served as mental representations. But he came to change his answer to the question of how things exist in the mind; in his later philosophical works, he held that all things, even mental entities, are "truly positive, real beings and true qualities" (2.13). From the start, he clearly had his suspicions about this sort of nonreal existence. But his deepest and most developed motive for changing his mind on the "how" question is that he came to defend a different answer to the "what" question. He came to believe that acts of cognition alone could play the roles that before he had allotted to *ficta*. On this new account, he no longer needed *ficta* and hence no longer needed objective existence. His new answer to the "what" question – his act theory – was thus the driving force behind his new answer to the "how" question.

The two substantive questions Ockham identifies can be combined into three different tenable positions.

<i>What exists in mind?</i>		1. Acts + Objects	2. Acts Alone
<i>How does it exist?</i>	<b>A. Objectively</b>	<i>Fictum</i> theory	Not an option
	<b>B. Subjectively</b>	Never defended	Act theory

The 2A combination (acts alone existing objectively) is not an option, because everyone agreed that acts of cognition have real, subjective existence in the soul.<sup>46</sup> The 1B combination (acts plus objects existing subjectively) is a tenable option – indeed, that is in essence Aquinas's account – but is one that Ockham never defends. He does go through an intermediate phase in which he says that all three views (1A, 1B, 2B) are plausible.<sup>47</sup> But he never singles out the 1B option for special endorsement. When he finally does give up the *fictum* theory (1A), he moves straight to the act theory (2B).

46 "Intellectio enim, et universaliter omne accidens informans animam, est vera qualitas sicut calor vel albedo" (*Ord.* 2.8; *OTh* II, 273).

47 See *Ord.* 2.8 (*OTh* II, 291); *ExPer.* I prooem. sec. 9 (*OPh* II, 369); *Ord.* 27.3 (*OTh* IV, 242–43, 253–54).

It is clear that Ockham's writings on this subject can be put into at least three periods. To the first period, when he accepted the *fictum* theory, belong the earliest drafts of his *Sentences* commentary. To the middle period, during which time he tolerated the three options mentioned, belong his later additions to the *Sentences* commentary as well as his commentary on the *Perihermenias*. To the last period, when he accepted the act theory, belong the *Summa logicae*, the *Quodlibeta*, and the *Quaestiones in libros Physicorum*. Cf. Boehner (1946); Gál (1967); Adams (1987), p. 74, n.10.

## Abandoning ficta

Although Ockham advances a variety of different considerations for and against the *fictum* theory, he first embraced it for reasons that are essentially much like those that led Henry of Ghent and Aquinas to embrace expressed mental words. In his first extended discussion of *ficta*, in the first book of his *Sentences* commentary (*Ordinatio* d. 2 q. 8), Ockham's focus is on *ficta* as universals. But in a later treatment, in his commentary on the *Perihermenias*, it becomes more clear that *ficta* are primarily needed to play two roles: to serve as universals and as propositions:

- 8.13 Such an image or *fictum* was postulated for no other reason than to supposit for a thing in such a way that both a proposition might be composed out of it and it might be common to things. For these are denied of things.<sup>48</sup>

Nothing in the external world, in other words, is either a proposition or a universal. Hence, Ockham concludes, something internal to intellect must play these roles. As a universal, a *fictum* is one thing predicated of many, and suited to be predicated of many because it is similar to many things. Such *ficta* are similar to what they represent in a special way. As Ockham notices, no objectively existing mental entity can be very much like a physically existing external object. But they are similar in this sense: an objectively existing *fictum* would be actually like the external things it represents if it were to have subjective existence.<sup>49</sup> This is an obscure counterfactual claim to make. But however it is to be understood, the crucial point at present is that the *fictum*, as a universal, "has the character of an object and is the immediate terminus of an act of intellectual cognition when no singular is cognized."<sup>50</sup> To the extent that knowledge is about universal concepts such as genera and species, the object of that knowledge is a mental construct. So despite his advocacy of direct realist theories of perception, Ockham cannot take the

48 "Sed non propter aliud ponitur tale idolum sive fictum nisi ut supponat pro re et ut ex ea componatur propositio et ut sit communis ad res, quia ista negantur a rebus" (*ExPer.* I prooem. sec. 7). Cf. *QPhys.* q. 1 (*OPh* VI, 397).

49 See *Ord* 2.8 ad 2 (*OTH* II, 283); *ExPer.* I prooem. sec. 10 (*OPh* II, 370–71). Adams (1978) and (1987), ch. 4, discuss this claim in detail.

50 "... illud fictum est illud quod primo et immediate denominatur ab intentione universalitatis et habet rationem obiecti, et est illud quod immediate terminat actum intelligendi quando nullum singulare intelligitur" (*Ord.* 2.8; *OTH* II, 274).

Cf. *ExPer.* I prooem. sec. 7 (*OPh* II, 360): "[E]t terminat actum intelligendi quando non intelligitur aliqua res singularis extra et tamen intelligitur aliquid commune rebus extra."



same view of intellectual cognition. The immediate objects of intellect, when intellect is concerned with universals, are mental entities.

Ockham's nominalism – his denial that there is anything common in external reality – leads him to this position. Realism about universals is "the worst error in philosophy."<sup>51</sup> His theory of propositions is similarly nominalist, so here, too, *ficta* must be invoked as the objects of intellect, given that propositions are the objects of intellectual cognition. Propositions are composed out of *ficta*, as 8.13 indicates. Ockham does not want to take the position (taken, for instance, by his contemporary Walter Burley) that propositions are composed of external objects in certain relations: "If someone were to affirm or deny that Socrates is Plato, that proposition would not be composed out of Socrates and Plato."<sup>52</sup> He does take seriously the claim that propositions (e.g., that Socrates is Plato) are the things we affirm, deny, know, and cognize. (I'll return to this point later.) So Ockham needs an account of what propositions are, and because they aren't anything external to the mind, he takes it that they must be mental constructs. At the time he held the *fictum* theory, he couldn't see any solution other than to hold that propositions are compositions out of *ficta*. This is not the place to give a detailed account of Ockham's theory of universals or propositions. But we can see that his early answer to the "what" question is quite close to Henry's (cf. 8.3, 8.4) and to Aquinas's (8.1), although neither Henry nor Aquinas would have found Ockham's answer to the "how" question plausible. (For Aquinas on the subject of intentional existence, refer back to Ch. 1.)

There are, as noted already, many reasons for surprise at Ockham's defense of this *fictum* theory. One in particular is that his defense of *ficta* seems predicated on a line of thought he explicitly rejects elsewhere. In Chapter 5 (sec. 3), we saw him claim that, when one has a cognition with certain features, there need not be any *thing* that actually has those features. This was in reply to Peter Aureol, who had sought to explain sensory illusions in terms of objectively existing apparent entities. Ockham replied to Aureol that when we see, for example, a stick that looks bent, there needn't be some further merely apparent object that actually is bent. (Nor need there even be a further object that appears

51 "Sed istam opinionem, quantum ad hoc quod ponit esse aliquas res extra praeter singulares existentes in eis, reputo omnino absurdam et destruentem totam philosophiam Aristotelis et omnem scientiam et omnem veritatem et rationem, et quod est pessimus error in philosophia" (*ExPer.* I prooem. sec. 8; *OPh* II, 363).

52 "Et ita, si aliquis affirmaret Sortem esse Platonem vel negaret, illa propositio non componeretur ex Sorte et Platone" (*ExPer.* I prooem. sec. 6; *OPh* II, 357). For the views of Burley and other Scholastics, including Ockham, see Nuchelmans (1973).

bent.) This might seem to show, likewise, that when we assent to the proposition, for example, that Socrates is Plato, there needn't actually be a thing, a proposition, that's distinct from the external objects in question. But, contrary to what we might expect, in the same discussion in which he makes this reply to sensory illusions, Ockham continues to hold that the *fictum* theory is a plausible account of intellectual concepts.<sup>53</sup> It seems, then, that the reply to Aureol conflicts with the *fictum* theory and that Ockham fails to recognize as much.

This is a point Marilyn Adams makes: "in raising difficulties with Aureol's principles, Ockham is posing problems for his own theory as well."<sup>54</sup> In coming to this conclusion, she stresses a passage in which Ockham reveals some of the motivation for the *fictum* theory:

8.14 Think of the common or confused cognition that corresponds to the spoken word 'man' or 'animal.' My question is whether in that cognition something is intellectually cognized, or nothing. It can't be said that nothing is cognized. For just as it is impossible for there to be a vision and for nothing to be seen, or for there to be enjoyment and for nothing to be enjoyed, so it is impossible for there to be a cognition and for nothing to be cognized in that cognition.<sup>55</sup>

As one would expect, Ockham goes on to argue that, in the case of a "common or confused cognition" (i.e., a universal cognition; cf. 8.16 below), the thing that is cognized can't exist externally. Hence, the object must be internal, and what could that be if not a *fictum*? For present purposes, the crucial step in the argument comes when Ockham rules out the possibility that nothing is cognized. Here is where it seems his reply to Aureol is relevant. In the sensory case, he rejects the following argument:

1. There appears to be a bent stick.
2. There is no bent stick having real existence.
- ∴ 3. There must be a bent stick having nonreal existence.

The intellectual case appears to have a similar form:

53 *Ord.* 27.3 (*OTh* IV, 242, 253).

54 Adams (1987), p. 90.

55 "Accipio cognitionem communem sive confusam quae correspondet isti voci 'homo' vel isti voci 'animal,' et quaero aut aliquid intelligitur ista cognitione aut nihil. Non potest dici quod nihil, quia sicut impossibile est esse visionem et nihil videri, vel esse dilectionem et nihil diligi, ita impossibile est esse cognitionem et nihil cognosci illa cognitione" (*ExPer.* I prooem. sec. 6; *Oph* II, 352–53). Cf. *Ord.* 2.8 (*OTh* II, 268).

This passage from *ExPer.* is in fact an argument against the act theory, made when Ockham was undecided between the two accounts. But it seems clear enough that we might also take the objection as an argument for *ficta*.

- 1\*. Someone has a general cognition of animal.
- 2\*. There is no object for such a cognition with real existence.
- ∴ 3\*. There must be an object for such a cognition with nonreal existence.

In neither case need we think that the objectively existing object really has the features lacking in the real world. *Ficta* are not actually general (they are not universals in the strictest sense); they are universals only insofar as they are predicated of many things. Likewise, few would have gone to the lengths of William Crathorn in holding that something inside the percipient is actually bent. The fictive entity Aureol postulates appears bent but is not really bent. In both cases, however, these entities are needed because nothing in the external world matches the content of the cognition in question. So it seems that the reasoning that led Ockham to reject the first argument should lead him to reject the second, and therefore to reject *ficta* in favor of the act account.

In fact, however, the two arguments are not analogous. We can see this by considering what further premises would be needed to make them fully explicit. The first argument needs a premise like this:

- 2.5. If an object appears as *x* then there must always be something that is *x*.

This, as we saw in Chapter 5, Ockham denies. The second argument needs a premise of the following sort:

- 2.5\*. When cognition takes place, there must always be an object for that cognition.

This latter premise is far less controversial; it seems to claim no more than that, when one has a cognition, there must be some thing that that cognition is of. All cognitions have to be of something. This premise renders the second argument valid. Moreover, it is precisely what Ockham asserts in 8.14; indeed, there he explicitly indicates that he accepts the premise for both the senses and intellect. But 2.5\* isn't enough to make the first argument valid. In the first argument, there is an object of cognition: the stick itself. In the second argument, in contrast, there is no external object at all. The difference here is akin to the difference between illusions and hallucinations. Aureol's instances of false sensory experience are all illusions, cases in which there is a perceptual object, but it appears distorted (cf. 2.6). In such cases, because there is an external object, Ockham argues that no inner object is required. In the case of hallucinations, in contrast, he presumably would

concede that an inner object is required. Indeed, he does explicitly note that *ficta* are required for things like chimeras and the mental design for a building: things that either cannot or do not (yet) exist.<sup>56</sup> These are the sorts of cases, rather than illusions, that are analogous in the relevant way to the intellectual cognition of universals or propositions. So Ockham can consistently deny that apparent entities are needed in the case of illusions and maintain that *ficta* are needed for abstract intellectual cognition.

Ockham abandoned *ficta*, and consequently the notion of objective existence, when he found some way to replace them. But he didn't find this easy to do, given the conjunction of claims he was committed to. First, he never abandons the claim expressed in 8.14, that cognition always requires an object of cognition. Second, he also maintains continuously that we have cognition of universals and propositions. Third, he never allows that universals and propositions exist externally. Given the conjunction of these three claims, it seems that he is inevitably committed to a mental ontology of acts plus inner objects: it seems that he needs *ficta*, or some kind of inner object, to play the role of universals and propositions. So although he might change his mind about how these inner objects exist, it is hard to see how he could change his mind about what exists.

Yet he does change his mind. His move is to treat acts of cognition themselves as universals and propositions. It has been well established that in making this move Ockham was influenced by his confrère Walter Chatton (1285–1344).<sup>57</sup> Chatton, after reading an early draft of Ockham's *Sentences* commentary, argued that such *ficta* could be eliminated in favor of cognitive acts. Instead of postulating *ficta* as inner objects of cognition that signify external things (this was Ockham's position; see 8.13), Chatton argues that acts of cognition themselves can be viewed as signifying external objects.<sup>58</sup> This, at the very least, is a gain in parsimony and also seems to have the advantage of eliminating intermediaries between our thoughts and the world. Because these were both central themes in Ockham's work, it is not entirely surprising that he eventually came to agree with Chatton. (Still, this is one of the few, hence remarkable, occasions on which a philosopher has actually

56 *Ord.* 2.8 (*OTH* II, 273–74); *ExPer.* I prooem. secs. 9–10 (*OPh* II, 364, 370).

57 For texts see Gál (1967); Fitzpatrick (1971). Tachau (1988), ch. 7 presents a good discussion of Chatton's views.

58 See *Reportatio* I d. 3 q. 2, edited in Gál (1969): "actus enim ita sufficit ad repraesentandum quaecumque sicut tale fictum" (p. 202); "intellectio aequè poterit significare immediate et repraesentare rem" (p. 204).

reversed his position in the face of an opponent's criticisms. Of this Gedeon Gál justly remarks, "spectatae integritatis atque humilitatis signum est."<sup>59</sup>

By the time of his *Summa logicae*, Ockham was willing to give an unqualified endorsement to the act theory. There are, he allows, a variety of opinions about mental concepts, and he gives the three options listed in the above chart (p. 278): the *fictum* theory, the act theory, and the theory of objects with subjective existence. The act theory, he makes it clear, is now his favorite:

8.15 In favor of those [defending the act theory] is this argument: that what is done through many is done in vain if it can be done through fewer. But everything preserved by positing something distinct from an act of intellectual cognition can be preserved without anything distinct, because to supposit for something and to signify something can be suited to an act of intellectual cognition just as to another sign. *Therefore there is no need to posit anything else beyond the act of intellectual cognition.*<sup>60</sup>

He takes the same position in other late works: the *Quodlibetal Questions* (IV.35) and the *Questions on the Physics* (qq. 1–7). In these works, it is not the notion of objective existence that he finds objectionable but the superfluity of any sort of inner objects other than acts of cognition. Occasionally, he does directly criticize the *fictum* theory: once heaping ridicule on the notion of objective existence (2.12) and once making the epistemological point that *ficta* would be intermediaries between our knowledge and the external world.<sup>61</sup> For the most part, however, *ficta* are just rendered superfluous by the act theory.

Passage 8.15 claims that acts of cognition can themselves serve as signs: they are able "to supposit for something and to signify something." We know enough about Ockham's theory of cognition now that we shouldn't be concerned when he claims that an act could serve as a sign. As we saw in Chapter 7, it is one of his (and Olivi's) principal insights to have seen that the mind can represent the world without

59 Gál (1969), p. 196.

60 "Alii dicunt quod est actus intelligendi. Et pro istis est ratio ista quia 'frustra fit per plura quod potest fieri per pauciora.' Omnia autem quae salvantur ponendo aliquid distinctum ab actu intelligendi possunt salvari sine tali distincto, eo quod supponere pro alio et significare aliud ita potest competere actui intelligendi sicut alii signo. Igitur praeter actum intelligendi non oportet aliquid aliud ponere" (*SL* I.12; *OPh* I, 43). Curiously, in *SL* I.15, after this ringing endorsement of the act theory, Ockham says merely that that theory is "unam opinionem probabilem," one plausible view.

61 "[Q]uoddam tertium medium inter cognitionem et rem; igitur si illud fictum intelligitur, tunc res extra non intelligitur" (*Quod.* IV.35; *OTh* IX, 473).

there being any further mind's eye observing those representations. Here, when he claims that acts are signs, he does not mean to imply the existence of some further interpreter of those signs. (That would involve a further act, and just the sort of regress Ockham warned against [see 7.13].)

On this new account, Ockham holds that acts of cognition themselves will stand for objects in the external world. Instead of holding that the *fictum* is a universal, signifying many things, he holds that the act of thinking about human beings in general (i.e., what Ockham calls a *confused intellection*) will stand indifferently for all human beings:

- 8.16 To have a confused intellection of a human being is nothing other than to have one cognition by which one human being is no more cognized than another, and nevertheless by that cognition a human being is more intellectually cognized than is a donkey.<sup>62</sup>

So on Ockham's later account, universals become general acts of thought that signify all members of a given class. (As for what makes an act of cognition signify one or more objects and not others, Ockham appeals, as we saw in Ch. 3, to the likeness between cognizer and cognized.)

In the case of chimeras and the like, Ockham holds that cognizing a chimera doesn't entail that a chimera exists or even that there need be any representation of a chimera other than the act of cognition itself. Likewise, imagining a castle doesn't entail that anything comes to exist other than that very act of imagining.<sup>63</sup> (Hence he now would have to qualify premise 2.5\*. It will evidently be only in the standard, veridical cases that an act of cognition requires an object. When the act in question is imaginary or illusory, there need be no object. Indeed, an illusory cognition just is a cognition "to which nothing corresponds but to which it is implied that something does correspond"<sup>64</sup> – that is, the percipient is misled.)

The greatest impediment to Ockham's abandoning *ficta* is his theory of propositions. Strictly speaking, he claims knowledge is about propositions that are composed of universal concepts. Of course, these con-

62 "[H]abere intellectionem hominis confusam non est aliud quam habere unam cognitionem qua non magis intelligitur unus homo quam alius, et tamen quod tali cognitione magis cognoscitur sive intelligitur homo quam asinus" (*ExPer.* I prooem. sec. 6; *Oph* II, 355).

63 *Ibid.*, sec. 9 (*Oph* II, 366–67).

64 "[I]ta fingens mentaliter causat veras intellectiones (vel alias qualitates, secundum aliam opinionem) quibus tamen nihil correspondet et tamen implicat aliquid correspondere; ideo dicitur fictum" (*ibid.*, 367). See also *Quod.* III.5 (*OTh* IX, 219).

cepts do, in most cases, signify and stand for external objects. But he says that it's only in a metaphorical and loose sense that knowledge (*scientia*) is about external objects.<sup>65</sup> This is a crucial point. Earlier, I suggested that Aquinas's theory of the *verbum* is motivated, at least implicitly, by the need for an object of abstract knowledge. We have yet to see this point developed into anything more substantive than a mere suggestion, because neither Aquinas, Henry, nor Olivi faces the issue squarely. Ockham, in contrast, does face this issue, and he claims that nothing in the external world could be the object of propositional knowledge. Hence, the object must be some kind of representation. His reasoning merits extended consideration:

8.17 Take the proposition 'every sensible substance is composed of matter and form.' The subject here is either [I] a thing outside the soul, or [II] only an intention in the soul, or [III] a spoken word. If [I] a thing, it is not [Ia] a common thing, because there is no such thing (as will be shown and has frequently been shown elsewhere). Therefore the subject is [Ib] some singular thing. But it's no more one thing than another; therefore the subject is either [Ibi] every singular thing or [Ibii] none of them. And it is not every one [Ibi], for there are many that are not intellectually cognized by the one who knows such a proposition, because there are many that he has never cognized. Therefore no such thing [I] is the subject. Therefore an intention [II] or spoken word [III] is the subject, so we have our conclusion.<sup>66</sup>

65 "Sed, proprie loquendo, scientia naturalis est de intentionibus animae communibus talibus rebus et supponentibus praecise pro talibus rebus in multis propositionibus. . . . Tamen, metaphorice et improprie loquendo, dicitur scientia naturalis esse de corruptibilibus et de mobilibus, quia est de illis terminis qui pro talibus supponunt" (*ExPhys.* prol. sec. 4 (*Oph* IV, 11)). This discussion is translated in William Ockham (1957), pp. 11–12. See also *Ord.* 2.4 (*OTh* II, 134–38), *Quod.* III.12 (*OTh* IX, 246–50).

Gyula Klima (1993) neglects this key epistemological point when he writes that universals are needed on Ockham's account merely "to account for the difference between the significative function of general and of singular terms" (p. 39).

66 Continuing from the previous note: "Et quod sic sit, ostendo: Nam accipio hanc propositionem: 'Omnis substantia sensibilis componitur ex materia et forma'. Aut hic subiicitur res extra animam, aut tantum intentio in anima, aut vox. Si res, et non res communis, quia nulla talis est, sicut ostendetur et alibi frequenter est ostensum, ergo subiicitur aliqua res singularis; et non magis una quam alia; ergo vel quaelibet subiicitur vel nulla; et non quaelibet, quia multae sunt quae non intelliguntur a sciente talem propositionem, quia multae sunt de quibus numquam cogitavit; ergo nulla talis res subiicitur. Ergo subiicitur intentio vel vox, et habetur propositum" (*ExPhys.* prol. sec. 4 (*Oph* IV, 11)).

Ockham's strategy is to eliminate one by one the various candidates for being the subject of the proposition 'every sensible substance is composed of matter and form.' The options he gives are

- I. A thing outside the soul.
  - a. A common thing.
  - b. A singular thing.
    - i. Every singular thing.
    - ii. No singular thing.
- II. An intention in the soul.
- III. A spoken word.

He isn't at this point concerned with distinguishing between (II) and (III), because he takes the latter, in normal cases, to presuppose the former. What he wants to rule out is option (I). Option (Ia) is quickly ruled out by his often-stated opposition to universals in re. This leaves the two options under (Ib). Of these there is only one choice, because option (Ibii) is plainly a contradiction in terms. So group (I) contains one plausible option: when we know a proposition, what we know is every single thing to which the terms refer.

This is the argument's pivotal point. It's unclear from 8.17 whether Ockham has in mind every actual thing or every possible thing.<sup>67</sup> For purposes of this argument, that doesn't make any difference, because his response applies to either case. He holds that the subject can't be *each and every* individual thing, because the person in question hasn't cognized every one of those individuals. There is, clearly, some intuitive appeal to this reply. Prima facie, it seems plausible that I can't have knowledge about a multitude of sensible objects I'm not acquainted with and have never even considered. But this claim is not as clear-cut as it might appear. If my knowledge that "every sensible substance is composed of matter and form" is attained a priori (as would surely be the case), then it seems that I would have this knowledge in the case of *each and every* individual thing – even in the case of things I've never been acquainted with. So it seems that some further argument is needed to rule out (Ib), and it's not clear that Ockham has any further argument.

Even if Ockham could rule out (Ib), he faces a further difficulty. If my having cognized an object is a prerequisite for its being a subject of my knowledge, then it seems we have reason to propose a third option under (Ib), namely, that the knowledge should be of every singular

67 He recognizes the difference. See, e.g., *SL* I.33 (*OPh* I, 95–96).



thing that the agent has cognized. He says there can be no third option, that “it’s no more one [singular] thing than another” (8.17). But his argument against (Ibi) seems to have opened up another viable option, that the subject might be all the singular things that the knower in question has previously cognized. To the extent that this is a necessary condition for having knowledge, it also seems like a plausible way to pick out the subjects of general knowledge claims. Here, then, is another reason for finding Ockham’s argument in 8.17 to be unsuccessful.

Ockham, however, does find the argument successful. So although he is willing to allow that illusory and imaginary cognitions require no objects, he isn’t willing to grant this in the case of knowledge. The objects of knowledge are propositions, and these are internal to intellect. On his old view, propositions were composed of *ficta* (8.13). On the act theory, they are composed out of acts of cognition. One wonders how this could possibly work, and Ockham in fact endeavors to supply some of the details. A mental proposition such as *homo est animal* might be composed, he suggests, either out of three distinct acts of cognition or out of a single act of cognition equivalent to those three acts. He also makes some suggestions about how this sort of account might explain the difference between *homo est animal* and *animal est homo*, given that acts of cognition cannot be ordered in the way that words can.<sup>68</sup> These remarks are, of course, just the barest gesture in the direction of a complete theory. However the details get resolved, the crucial theoretical point is that propositions aren’t composed out of some further entities beyond acts of cognition.

All of this leaves Ockham with a problem, inasmuch as propositions are the *objects* of knowledge. For better or for worse, this was not an issue for either Olivi or Chatton, both of whom took knowledge to be about the external world. Chatton flatly denies the need for acts of cognition to have any inner object or terminus: “the external thing is the terminus of an intellection.”<sup>69</sup> Ockham, in contrast, has to hold that someone’s knowing that human beings are animals, for instance, involves multiple cognitive acts: first, the acts that constitute the mental proposition *homo est animal*; second, the act of knowing that proposition:

68 *ExPer.* I prooem. sec. 6 (*OPh* II, 356–57).

69 *Reportatio* I d. 3 a. 2, in Gál (1969), p. 205. Cf. *Lectura* I d. 3 a. 2, in *ibid.*, p. 205, n. 28: “Dicendum est igitur quod intellectio est quaedam qualitas absoluta, quae non requirit talem terminum concomitantem in essendo, differens a quocumque ente reali. Ideo dicendum quod ipsamet intellectio est conceptus, quia per eam concipitur res quae concipitur, nec est ibi aliquod tale ens fictum concomitans.”

## Abandoning *ficta*

8.18 When some proposition in the mind is known, then there are two acts of intellect at the same time – namely, the proposition and another act by which that proposition is known.<sup>70</sup>

In this way he holds to the position defended in 8.17: nothing in the external world could be an object of abstract or general knowledge. When one knows that human beings are animals, the object of that cognitive act is a second, equally occurrent cognitive act.

This is, to say the least, a counterintuitive view. On it, what one knows is a proposition, and a proposition is equivalent to an act of apprehending. Hence, knowing that human beings are animals is equivalent to knowing one's apprehension that human beings are animals. But knowledge of the latter sort seems to be self-knowledge; it seems to be knowledge about what one is thinking. And it seems quite odd to hold that the knowledge that human beings are animals is knowledge about one's thoughts. This is not to say that Ockham's earlier position was any better. It's scarcely an improvement to say that the knowledge that human beings are animals is knowledge about a complex of *ficta* that have nonreal existence in the soul. Yet one can at least say on Ockham's behalf that he saw the need to confront these questions, as Olivi did not.

We can now see why Ockham was so slow to abandon *ficta*, despite his constant emphasis on parsimony and despite his willingness, at the sensory level, to identify cognitive representation with the cognitive act. His early and late theories of concepts share the view that knowledge requires some kind of inner object. Given this view, he couldn't fully eliminate cognitive objects at the intellectual level, as he did at the sensory level. The best he could do was minimize the kinds of entities postulated.

70 "Et ideo quando aliqua propositio in mente scitur, tunc sunt duo actus intellectus simul, scilicet ipsa propositio et actus alius quo scitur illa propositio" (*ExPer*. I proem. sec. 6; *OPh* II, 358).

In fact, Ockham at this point draws a distinction between an act of knowing a proposition and an act of apprehending. It is the latter sort of act that is identical with a proposition. Yet, strangely, the object of an act of apprehending is the external world not some further proposition. The proposition is an act of cognition "by which" external objects are apprehended, even when these objects are general ones, such as all men, or all animals (*ibid.*, 357). This would seem to raise all the problems of 8.17, and Ockham doesn't explain why an act of apprehending, but not an act of knowing, can take external objects as its subject. Nor is it clear why he draws a distinction between these two kinds of intellectual acts. So I am unclear about what significance to ascribe to this nuance in his argument.

## Conclusion: A new form of knowing

**I**N this book we have seen various aspects of the spirited and sustained Scholastic debate over the nature of knowledge and mental representation. Far from finding such debate to be fundamentally different from that of the modern era, we have seen substantial areas of similarity. Aristotelian theories of cognition, as understood by the Scholastics, hardly look like radical alternatives to modern theories. Indeed, it is Olivi and Ockham, if anyone, who emerge as the real advocates of a radically distinct account of cognition. They reach this new account, moreover, not by pursuing the Aristotelian tradition but precisely because they were willing to challenge fundamental assumptions of that tradition.

What happened to the theories of Olivi and Ockham? How did it happen that dime-store histories of philosophy came to credit the seventeenth century with a theory of mind and perception that was not only current in the thirteenth century but was even incisively criticized at that time and replaced with a more thoroughgoing direct realism? These questions take on special importance when we consider the widespread conviction of philosophers today that important elements of the view Olivi and Ockham were criticizing – specifically the act-object doctrine and representationalism – are mistakes that philosophy of mind is still trying to overcome.<sup>1</sup> The act theory of mind was ignored

1 Rorty (1979) is the best-known voice, but there are many others. The central theme of Hilary Putnam's 1994 Dewey lectures was that the failure to adopt a direct-realist theory of perception is one of the primary confusions in the current realist-antirealist debates (see Putnam 1994b). Dennett (1991) argues that thinking about consciousness has been distorted by the illusion of a Cartesian theater "where 'it all comes together' and consciousness happens" (p. 39). This, too, is a product of thinking of cognition in terms of internal representations to an inner audience. Patricia Churchland (1986) speaks of the "embarrassing" and "enduring presence of homuncular preconceptions" in neuroscience, that is, the view that there is a "little person in the brain who

not only in the modern period but even during the Middle Ages. Despite the strength of Olivi's and Ockham's arguments, few Scholastics were persuaded to follow them in giving up the doctrine of species.<sup>2</sup> The dogma of inner representations as objects of apprehension lived on throughout the fourteenth century; consequently, there was no countervailing medieval tradition strong enough to influence early modern treatments. By the eighteenth century, Thomas Reid could claim that all philosophers up until him had been committed to representationalism (i.2).

Perhaps if either Olivi or Ockham had been more respectable figures, then the history of philosophy of mind would have gone differently. Each, after all, was condemned by church authorities: Olivi's works were burned, and Ockham's were censured. Another possibility is that later thinkers had a difficult time seeing precisely what was important in the rejection of species. As we have seen, the debate over species had a number of different aspects. On the one hand, Olivi and Ockham were rejecting species *in medio* in favor of their own specific causal stories about perception. (See Ch. 5.) If we concentrate on that aspect of their views, then we are likely to come away thinking of their theories as antiquated relics of medieval science. Nor is it surprising that those aspects of their accounts, given their speculative nature, held little interest for other Scholastics.

Another element of the rejection of species is the epistemological critique discussed in Chapter 7. Even here, however, it's not so clear that Olivi and Ockham offer a markedly more satisfactory account. Surely, they were right to claim that the naive theory of species makes perceptual knowledge inferential. But eliminating cognitive (and even causal) intermediaries between percipient and object doesn't allow one to evade altogether the question of whether the content of our beliefs matches the way things are. It seems that if the proponent of the species theory needs an answer to this problem, so do Olivi and Ockham. We can see this in an argument Olivi advances against the species theory.

'sees' an inner television screen." Although the rejection of this way of thinking is "the cardinal background principle" for neuroscience, the principle is nevertheless one that "it takes effort to remember" (pp. 406–7).

- 2 Ockham reports that, in his time, sensible species were standardly (*communiter*) accepted (*Rep.* III.3; *OTH* VI, 98). Nor did things change later on. According to Tachau (1988), "Ockham did not establish a school of Ockhamists, and he did not succeed in displacing visible species from accounts of cognition even in *Sentences* commentaries" (p. xv). For later debates over intelligible species, see Spruit (1994).

## Conclusion

His claim is that the species account would leave the door wide open for God's deceiving us:

- c.1 Let it be supposed that God might exhibit such a species to our attention when the thing does not exist or is absent from us. Then the thing would be seen just as well as if it were present and actually existent, although it wouldn't any more or less be there.<sup>3</sup>

One has to wonder whether the objection is really unique to the species account. On what theory of human cognition would it turn out that an omnipotent God could not deceive us? Special-case skeptical arguments like this one, whether based on divine deception or dreams or mental illness (see 7.4, 7.7), seem to apply just as much to the act theory as to the species theory. The same applies to general skeptical arguments, such as the one Henry of Ghent raises and attempts to reject (7.1, 7.2). Eliminating intermediaries doesn't ensure that our perceptions and beliefs will match the way things really are.

Olivi wrongly takes his account to be immune to the skeptical arguments he makes against species; hence, in c.1 we see him making arguments that could apply just as well to himself. Ockham, on the contrary, makes no such mistake; he sees that his account isn't immune to such arguments. Hence, we saw in Chapter 7 (7.14 and following) that he uses the case of Hercules not as a skeptical argument, exactly, but as an argument to show that perception through species would be inferential. It's no surprise that Ockham recognized his own vulnerability to skeptical arguments of the sort discussed by Henry of Ghent, Crathorn, and now Olivi. In the course of his discussion of illusions (see Ch. 5, sec. 3), Ockham emphasizes what is in effect the flip side of such skeptical arguments. The act theory, he insists, is no obstacle to explaining illusions. Nonveridical cognition is possible even without intermediary representations. But for that same reason, the act theory is no help when it comes to refuting skepticism. Once illusions get a foot in the door, skeptical arguments will force their way in. It may be less obvious on the act theory that we face a problem about knowledge of the external world. The way the species theory invites us to think about the process of cognition – namely, as mediated by images of reality – encourages such skeptical arguments in a way that the act theory does not. But with or without species, the threat of skepticism remains.

3 "Praeterea, ponatur quod Deus talem speciem exhiberet aspectui nostro re non existente aut a nobis absente, tunc ita bene videretur res sicut si esset praesens et actu existens, immo non esset ibi nec plus nec minus" (*II Sent.* q. 58 ad 14; II, 470).

The act theory is important, then, not for its epistemological implications, and certainly not because it led to a better scientific story about how sounds and colors are transmitted through the air and into the sense organs. Rather, what it offers is a new way of thinking about mind and cognition. In the face of persistent Scholastic disputes about the nature of intentional existence, the sense in which species are likenesses, the degree to which cognition is passive and active, and the possibility of knowledge of the external world, Olivi and Ockham decide to leave out species as they were ordinarily conceived, thereby rethinking cognition entirely.

At the outset of Chapter 6, I quoted Joseph Owens saying that Aquinas is “radically distinct from modern philosophers” insofar as his philosophy is based not on ideas or sensations but “immediately on external things themselves.” Clearly, there is a difference in emphasis between Aquinas and, say, Descartes or Locke. But we’ve seen reason to conclude that Owens overstates the case. There is no radical conceptual difference between the role of early-modern ideas and the role of Aquinas’s species. Aquinas shares the presupposition, characteristic of seventeenth-century philosophy, that the immediate and direct objects of cognitive apprehension are our internal impressions. His position on this question is subtle and interesting. But it is not radically distinct from modern theories.

I hope this work helps put to rest a widespread and influential historical thesis in epistemology and philosophy of mind. It is often said that the present set of problems we face in these areas is, for better or for worse, the product of the early modern period. One often hears it said that if not for Descartes and Locke (and maybe a few misguided others) we would never have been troubled by skeptical arguments based on the veil of ideas, nor would we tend to think of the mind as a kind of ghost in the machine, or a Cartesian theater, and so forth. (The list of problems could go on and on.) If earlier philosophers had thoughts on such matters, the implication seems to be that those thoughts were of a quite different kind. Richard Rorty describes a picture or metaphor that has dominated modern philosophy: “that of the mind as a great mirror, containing various representations – some accurate, some not.”<sup>4</sup> I began this study by criticizing Rorty and others for thinking that this picture and the questions it raises originated in the early modern period. It should be abundantly clear by now that, for better or for worse, this way of conceptualizing the mind is not a modern invention.

4 Rorty (1979), p. 12.

## Conclusion

Later medieval philosophy contributed to the debate on these issues in a variety of interesting ways.

Rorty credits Aquinas (and in general Aristotelians) with a conception of mind on which “knowledge is not the possession of accurate *representations* of an object.”<sup>5</sup> He hopes that once we recognize the existence of this other conception, we will see that the “Cartesian” conception is “optional” – something we can reject. When one reads Aquinas closely, however, this allegedly radical difference with post-Cartesian philosophy of mind disappears. Aquinas, and the Scholastics in general, puzzle over many of the same questions about the mind and knowledge that have preoccupied modern philosophy. This does not show in the least that we are right to be preoccupied with such puzzles. It may be, as Rorty and many others have argued, that we are the victims of a badly misleading conceptual picture of the mind. But the conclusion I would draw is that this picture, right or wrong, is not just the product of a few idiosyncratic seventeenth-century thinkers. It’s rather a picture that comes quite naturally to us when we think about the mind, and it’s one that has been around much longer than is commonly thought.

In the Introduction, I claimed that this book would lend a new historical perspective to contemporary thinking about the mind and knowledge. The point, I indicated, is not to establish who said what first but to show that current ways of conceptualizing problems in these areas aren’t just an accidental product of the seventeenth and eighteenth centuries. Philosophical speculation about the mind and knowledge, I suggested, is not in a rut but simply following the lay of the land. Hence, if we are to dissolve these old dilemmas, it won’t be enough simply to rid ourselves of familiar metaphors and pictures – as if we could be pulled out of our old and misleading paths of thought by a mere jerk to the reins. What is instead needed, if I may continue the metaphor, is the hard work of land surveying, bridge building, and road paving. Our thinking about the mind shows a continuous development along an intuitive and natural path. To get off this path – or even to determine whether we want to get off it – will require long and hard work and won’t merely be a matter of changing our perspective.

5 Ibid., p. 45.

## APPENDIX A

### The identity of knower and known (Aquinas)

ONE often hears extravagant claims made for the Aristotelian doctrine that “what understands and what is understood are the same”<sup>1</sup> or, elsewhere in the *De anima*, that “knowledge is in some way the knowable things, while sense is those that are sensible.”<sup>2</sup> This identity between knower and what is known, or between percipient and what is perceived, is often said to offer a way out of the familiar skeptical arguments against the possibility of our having knowledge of the external world. This doctrine, we are sometimes told, allows us to bridge the problematic gap between our ideas or impressions and the outside world. By providing for the identity of our thoughts and their objects, it guarantees immediate access to reality.

Typically, such claims are made by students of Thomas Aquinas, who in this way seek to render his theory of knowledge immune from the skeptical and idealist controversies of modern philosophy. Étienne Gilson is typical of those who make this sort of move:

- a.1 It is important to understand that the species of an object is not one being and the object another. It [the species] is the very object under the mode of species; that is, it is still the object considered in action and in the efficacy it exerts over a subject. Under this one condition only can we say that it is not the species of the object that is present in thought but the object through its species. . . . The whole objectivity of human knowledge depends in the last analysis upon the fact that it is not a superadded intermediary or a distant substitute which is introduced into our thought in place of the thing. It is, rather, the sensible species of the thing itself which . . . becomes the form of our possible intellect.<sup>3</sup>

1 *De anima* iii.4 (430a4). All quotations from the *De anima* are based on the medieval Latin translation by William of Moerbeke.

2 *De anima* ~~iii.4 (430a4)~~.

iii.8 (431b22-23)

3 Gilson (1956), p. 227.



## Appendix A

Gilson invokes the identity of knower and known as the only condition under which we can hold that the external object itself is “present in thought.” On this identity depends “the whole objectivity of human knowledge.” Precisely what Gilson means by such claims is not evident. But before evaluating the importance of this cognitive identity, as claimed by Gilson and others, we should consider what, for Aquinas, this identity really is.

Bernard Lonergan has noticed that there is a certain tension between the identity doctrine as it appears in Aristotle and in Aquinas. Aristotle, at least sometimes, speaks of an identity between the *activity* of cognizer and cognized, for instance, at *De anima* iii.2 (425b26–28), where he says, “the *activity* of the sensible and the sense is one and the same, although their existence is not the same.”<sup>4</sup> Perhaps he means this to be an instance of a general point he makes elsewhere: that acting and being affected (e.g., moving and being moved) are identical activities or actualizations under different descriptions.<sup>5</sup> However Aristotle is to be understood, it is clear that (at least sometimes) he takes the identity of knower and known to be an identity of two activities. In other words, knowing is the same as being known.

Aquinas, interestingly enough, follows this way of speaking without remark when he comments on the *De anima* text. His gloss on the passage from *De anima* iii.2 closely follows the text, holding that “the activity of any sense is one and the same in subject with the activity of the sensible, but they are not one in definition.”<sup>6</sup> Nowhere in this part of his commentary does he give any hint of being uncomfortable with that reading of the identity doctrine. Nevertheless, when not constrained by the letter of Aristotle’s text, Aquinas consistently reads the identity of knower and known in a quite different manner. Instead of equating the act of cognizing with the act of being cognized, Aquinas speaks of a *formal identity* between the cognizer and the object cognized. Even in the *De anima* commentary itself, he prefers to speak of the identity in this way:

4 “Sensibilis autem actus et sensus idem est, et unus; esse autem ipsorum non idem.”

5 See, e.g., *Physics* iii.3 (202a12–b29). Here I’m drawing on the discussion in Lonergan (1967), pp. 147–48.

6 “[S]ed etiam actus cuiuslibet sensus est unus et idem subjecto cum actu sensibilis, sed ratione non est unus” (*InDA* III.2.127–29 [sec. 590]).

## *The identity of knower and known*

- a.2 Intellect actualized is said to be the actualized object of the intellectual cognition itself in this way: insofar as the species of the object of intellectual cognition is a species of actualized intellect.<sup>7</sup>

The identity at issue, in other words, is taken to be a matter of the identity of species. Here the term 'species' is meant in the cognitive sense: it refers not to logical or biological kind but rather to sensible and intelligible species. The species that informs intellect is the same as the object's species. As he says elsewhere in the *De anima* commentary, "the species of the thing actually cognized by intellect is the species of intellect itself."<sup>8</sup> Outside of the *De anima* commentary, Aquinas invariably treats the identity in question as formal identity: the very form or species of the external object is received in sense or intellect. He writes that a mental representation "must be of the same species [as the external object], or rather, *must be its species*" (3.2). As we saw in Chapters 1 and 3, this does not mean that the senses or intellect actually take on the characteristics of the object being cognized. The sensible or intelligible species exists in a different way in our cognitive faculties – it exists there intentionally, not naturally. Despite this difference in its manner of existence, the species or form is identical internally and externally.

Confusion is sometimes generated in the literature by the difference between these two sorts of identity: identity of form and identity of action. Anthony Kenny, for instance, first describes the identity doctrine in terms of formal identity. The sense faculty, he says, "becomes itself like the sense-object by taking on the sense-object's form." But Kenny immediately goes on to "illustrate" this doctrine in a way that shows he is now thinking of the identity of actions. Taking as his example the taste of sugar, he says,

- a.3 the operation of the sense of taste upon the sensible object is the same thing as the action of the sensible object upon my sense. That is to say, the sugar's tasting sweet to me is one and the same event as my tasting the sweetness of the sugar.<sup>9</sup>

Here Kenny is not speaking of formal identity, as before, but rather of the identity of action. These seem to be two quite different sorts of identity. Only formal identity fits with Aquinas's standard usage.

7 "Et per hunc modum dicitur intellectus in actu esse ipsum intellectum in actu, in quantum species intellecti est species intellectus in actu" (*InDA* III.13.45–48 [sec. 789]).

8 "Species igitur rei intellectae in actu est species ipsius intellectus" (*InDA* III.9.80–81 [sec. 724]).

9 Kenny (1993), p. 35.

## Appendix A

If the identity of knower and known is to do any epistemological work for us, it will be when it is understood as formal identity. This is how Gilson takes the doctrine – as meaning that the species “is the very object” (a.1). On this identity depends “the whole objectivity of human knowledge.” The idea must be something like this: we are able to have knowledge of the external world through our interior impressions and ideas because the two are somehow identical. There is no gap between appearances and reality and no veil of species or ideas, because the species are – at least in a way – identical with external objects. To be sure, Aquinas never uses the doctrine of formal identity for this end. As is often noted, he scarcely confronts the sort of skeptical problems that are characteristic of modern philosophy. All the same, readers of Aquinas often believe that this doctrine can be used for just that purpose. Indeed, it might be suggested that one reason Aquinas was never troubled by the question of our knowledge of the external world is that he had in place this doctrine of formal identity.

It’s not hard to see, however, that the notion of formal identity does not give us a general reply to the main forms of skeptical argument. How, for instance, could the identity doctrine answer the dreaming doubt? If we are dreaming, then plainly our ideas are not formally identical with external objects (unless by chance it happens that things are the way we dream them to be). But how do we know, at any given moment, that we’re not dreaming? Likewise, if we are being deceived by an evil demon, then our ideas are not formally identical with external objects. But how do we know we are not being deceived? Of course, if one is allowed to presuppose the truth of the identity doctrine, then these possibilities vanish. But the skeptic isn’t going to tolerate our supposing from the outset that reality corresponds to our ideas.

I don’t think that Gilson and others who rely on formal identity intend the doctrine to solve these sorts of skeptical worries. Indeed, Gilson devotes an entire book to the Thomistic treatment of skepticism without even discussing the formal identity doctrine.<sup>10</sup> What Gilson and others seem to have in mind is to use formal identity to rebut a kind of idealism, according to which human knowledge is not of the external world but of our inner ideas or impressions. (This is the doctrine I refer to in Chapter 6 as the idealist form of representationalism.) This fits Gilson’s claim that “the whole objectivity of human knowledge” depends on this formal identity. Evidently, what he wants to avoid is a

10 Gilson (1986).

kind of subjectivism according to which our knowledge never reaches outside ourselves.

Care has to be taken to distinguish this claim for the identity doctrine from a weaker claim, that formal identity is responsible for giving our mental states their intentional content. This latter claim seems to be what Peter Geach has in mind when he explains the formal identity doctrine and says that "it is thus that our mind 'reaches right up to the reality.'"<sup>11</sup> This is perfectly true in the sense that Aquinas explains mental representation and intentionality in terms of formal identity. My thoughts about *x* are about *x* insofar as they are a likeness of *x*, and Aquinas explains likeness in terms of formal identity. (This was the subject of Ch. 3.) In this rather modest sense, the identity doctrine does explain how our thoughts reach right up to reality.

Gilson and others want to make a stronger claim for the identity doctrine. They hold that our thoughts, in virtue of this formal identity, reach right up to reality in a special way. It's not just like the way my words 'the president' reach right up to the president, or even like the way a picture of the president reaches right up to the president. Moreover, our thoughts would not reach reality in this special way if they were *mere* likenesses. The point Gilson and others want to make is that Aquinas's theory of knowledge is superior to an account on which ideas and impressions are no more than pictures (of some kind) of the external world. Our ideas are, somehow, the objects themselves, and so they are no mere representations of reality.

One way to put this stronger claim made for the identity doctrine is that it gives Aquinas a direct-realist account of perception and knowledge in general. Norman Kretzmann takes this position, writing that our access to the external world "is utterly direct, to the point of formal identity between the extra-mental object and the actually cognizing faculty."<sup>12</sup> This matches Gilson, who we earlier saw claim that "it is not the species of the object that is present in thought but the object through its species." What is being rejected by these writers is representationalism, the view that the immediate objects of perception and knowledge are our inner ideas and impressions, and that the external world is known indirectly (if at all).

How does the identity doctrine secure direct realism? The answer isn't entirely clear. The most obvious motive for emphasizing the iden-

<sup>11</sup> Anscombe and Geach (1961), p. 95.

<sup>12</sup> Kretzmann (1993), p. 138.

tity between species and object would seem to be that this allows one to admit that the species is itself apprehended but nevertheless deny that this entails representationalism, because the species is identical to the object. Schematically, the reasoning would run as follows: even though  $x$  is apprehended in virtue of  $y$ 's being apprehended, one can still maintain that  $x$  is apprehended immediately because (a)  $x = y$ , and (b) if  $x = y$  then apprehending  $y$  just is apprehending  $x$ . This seems the most natural way to understand the move being made by Kretzmann and Gilson.

This is a surprising conclusion to reach, however, for (as I pointed out in Ch. 6) most commentators would deny that Aquinas thinks species are in any sense the objects of cognition. Kretzmann, for instance, claims on the very next page that the relationship between species and object is causal, not representational; that is, we shouldn't think of the species as literally representing the external world to some inner eye. But if species are merely causal intermediaries between our cognitive faculties and external objects, then it is hard to see why it should matter that they be identical with those external objects. Surely, any modern direct-realist theory of perception will allow causal intermediaries between object and percipient: no one would dream of denying the title of 'direct realism' to a theory of perception merely because it tolerates causal intermediaries. And it is not clear what more is to be gained by holding that those causal intermediaries are in some sense identical with the external object. The debate between direct realists and representationalists isn't about the causal connection between percipient and object, so if species are mere causal intermediaries, then it is hard to see how the doctrine of formal identity contributes to the argument for direct realism. To put this same point another way, Kretzmann, by taking species as merely causal intermediaries, is already ascribing direct realism to Aquinas. It's not clear what more he gains by formal identity.

So formal identity seems relevant to direct realism only if species are somehow themselves apprehended. I don't think that saying this is enough to end discussion of the identity doctrine, because there is a sense in which Aquinas does treat species as the objects of cognition (see Ch. 6). But we should notice that, even if the identity doctrine gives us a way to reject representationalism, this still isn't going to help us refute the associated skeptical difficulties. The skeptic makes the following line of argument against the representationalist: if all you see directly are your inner ideas and impressions, then how can you have any knowledge of the external world? How can you know that things

really are as they seem to be? (This is the argument Henry of Ghent considers in 7.1.) From the outset, the identity doctrine can do no more than beg these questions, by presupposing that things are as they seem to be. The skeptic might concede for the sake of argument that, if our perceptions are veridical, then our ideas are formally identical with external objects. But the skeptic will want to know how we are entitled to assume that this formal identity holds. The doctrine of formal identity itself offers no answer to this question. The skeptic has to be answered in some other way.

Again, we see that formal identity provides no help against the skeptic. But the doctrine may still serve a useful purpose if it can show us how to be direct realists. On my analysis, formal identity appears to give us a way of having our cake and eating it, too. We can treat species as the internal objects of cognition and still reject representationalism. Because the species is identical with the object, apprehending the species is apprehending the object. This line of argument, however, rests on an invalid move. The argument assumes that we can substitute identical objects into claims about perceiving and apprehending while preserving the truth of those claims. The schema was that, if  $x = y$ , then apprehending  $y$  just is apprehending  $x$ . It's not clear that this schema holds even when limited to objects that are numerically identical. Phrases such as 'S apprehends  $y$ ' or 'S sees  $y$ ' might, at least arguably, be instances of an opaque context, in which  $y$  cannot be replaced by an equivalent object, preserving truth. But whatever the case may be for numerically identical objects, it is clear that the schema does not hold for things that are merely formally identical. One of Aquinas's favorite examples of formal identity is the identity between a statue and the man represented by that statue (see 3.19). In this case, clearly, substitution in the above schema is not permissible. One can perceive the statue without perceiving the man. But this is an instance of the very sort of identity that he claims for cognition. Hence, the identity of internal species and external object does not show that the external object is perceived directly – or even at all. Even if  $x$  is formally identical to  $y$ , one can perceive  $y$  without perceiving  $x$ .

If anything, the texts show that the identity of knower and known is an embarrassment for Aquinas when he takes up the problem of whether sensible and intelligible species are the objects of cognition. Of course, he wants to say that ordinarily – except for cases of introspection – it is the external object that is cognized, not the species. When he faces this issue in the *Summa theologiae*, the first objection he raises runs as follows:

## Appendix A

- a.4 That which is actually intellectually cognized is in the one cognizing, because that which is actually cognized is the actualized intellect itself. But of the thing cognized all that is in the intellect actually cognizing is the abstracted intelligible species. Therefore, a species of this sort is the very thing that is actually intellectually cognized.<sup>13</sup>

Here, the identity doctrine appears to lead to an undesirable conclusion. The objection supposes that, however we take the claim that intellect *is* the thing cognized, that identity will entail that the thing cognized is *in* intellect. But the only candidate for being in intellect is the intelligible species. Therefore, the intelligible species is itself cognized.

One way Aquinas could deal with this objection is to accept the conclusion but remind the reader of the identity doctrine: the species in intellect *is* the species of the external object (a.2). Hence, cognizing the species is the same as cognizing the external object. (This is what I referred to as the strategy of having your cake and eating it, too.) Aquinas doesn't answer the objection in that way, which isn't surprising because, as we've just seen, the move is invalid when the identity in question is mere formal identity. Rather, he answers the objection (a.4) by clarifying his interpretation of the identity doctrine:

- a.5 That which is intellectually cognized is in the one cognizing *through its likeness*. And in this way it is said that "what is actually cognized is the actualized intellect," insofar as the *likeness* of the thing intellectually cognized is the form of intellect (just as the *likeness* of the sensible thing is the form of sense actualized).<sup>14</sup>

Aquinas isn't giving up the doctrine of formal identity. On his view, one thing can be a likeness of another only if there is a formal identity between them: "a likeness between two things occurs to the extent that there is an agreement in form."<sup>15</sup> The point of his speaking of likenesses here is to emphasize that the identity in question is mere formal identity; it's not as if the very object being apprehended is inside intellect. Later in this same article, Aquinas emphasizes that even in the case of intellectual cognition, directed toward abstract quiddities, the object of

13 "Intellectum enim in actu est in intelligente: quia intellectum in actu est ipse intellectus in actu. Sed nihil de re intellecta est in intellectu actu intelligente, nisi species intelligibilis abstracta. Ergo huiusmodi species est ipsum intellectum in actu" (ST 1a 85.2 obj. 1).

14 "Intellectum est in intelligente per suam similitudinem. Et per hunc modum dicitur quod intellectum in actu est intellectus in actu, in quantum similitudo rei intellectae est forma intellectus; sicut similitudo rei sensibilis est forma sensus in actu" (ST 1a 85.2 ad 1). Cf. ST 1a 87.1 ad 3.

15 QDV 8.8c. See Ch. 3, nn. 4–5.

cognition is not the inner likeness but “the nature itself,” which “exists only in singular objects.”<sup>16</sup> So the identity doctrine does not entail that the species is the object of cognition.

Elsewhere, he makes this point even more plainly: “the application of what is cognized to the one cognizing . . . shouldn’t be understood as a kind of identity, but as some kind of representation.”<sup>17</sup> Again, the point is not that no kind of identity is involved but that it is merely formal identity, not actual numerical identity. Hence (contrary to a.4), external objects could be cognized directly without species being cognized at all. And, vice versa, species might be cognized directly without external objects being cognized at all. Aquinas of course holds that the former possibility in fact obtains and that the latter does not (except in introspection), but we’ve seen that the doctrine of formal identity cannot help him reach this conclusion.

Formal identity does not help Aquinas with the epistemological problem of getting from our ideas and impressions to the external world. We’ve seen that the doctrine isn’t even superficially helpful in responding directly to the main lines of skeptical attack. It was initially more plausible to think the doctrine might help formulate a direct-realist theory of thought and perception. But we’ve seen that, if anything, formal identity posed an obstacle to Aquinas’s rejection of representationalism, and that he had to take care to interpret the doctrine in such a way as to defuse any suggestion of there being a real identity between knower and known. Nevertheless, the doctrine of formal identity does play an important role in Aquinas’s theory of cognition. For one thing, as noted, it underlies his treatment of species as likenesses and explains how the intentional content of our thoughts is determined. For another, as discussed in Chapter 8, the doctrine has the potential to explain how the objects of intellectual cognition can be simultaneously in the mind (the *verbum*) and in the world (the form as it exists in natural objects). (Still, as discussed there, this is not the most promising way of interpreting Aquinas’s position. Moreover, the considerations advanced here should raise additional doubts about the usefulness of formal identity in this respect. The last two paragraphs show Aquinas refusing to embrace formal identity as a shortcut to the external world, even in the case of intellectual cognition.)

16 “Ipsa igitur natura cui accidit vel intelligi vel abstrahi, vel intentio universalitatis, non est nisi in singularibus; sed hoc ipsum quod est intelligi vel abstrahi, vel intentio universalitatis, est in intellectu” (*ST* 1a 85.2 ad 2).

17 “Applicatio cogniti ad cognoscentem quae cognitionem facit non est intelligenda per modum identitatis sed per modum cuiusdam repraesentationis” (*QDV* 2.5 ad 7).



## Appendix A

Finally, there is a way in which the doctrine of formal identity does help with a certain kind of epistemological worry about our access to the external world. Given that Aquinas explains cognition as mediated by internal species that represent features of external reality, he needs some account of why we can successfully use species as intermediaries in this way. Regardless of whether species are viewed as mere causal intermediaries or as in some way themselves apprehended, some kind of account still needs to be given of how our mediated apprehension of reality can give us accurate information about the world. Such an account should be distinguished from the project of giving a noncircular, non-question-begging reply to the skeptic. Formal identity doesn't help answer the skeptic. But it does help with the former problem, insofar as it does provide some sort of explanation – in the sense of a description – of how we obtain knowledge of external objects *through species*.

How could the doctrine of formal identity help in giving an explanation of this sort? It may at first glance seem entirely unhelpful to appeal to the formal identity between species and object. And no doubt it won't help matters merely to recall that this is another way of saying that species are likenesses of the external object. But Aquinas's point becomes more illuminating when we place this claim of formal identity in the context of his Aristotelian physics. For Aquinas, forms are the mechanisms by which one thing acts causally on another, and he holds generally that agents act by impressing their form – that is, a likeness of their form – on the thing being affected. One thing heats another by impressing the form of heat on the other. The thing heated thus becomes formally identical with the agent, insofar as both are hot. Hence, they also become like one another, insofar as they share the same form (the form of heat). What's important for our purposes is that, on this scheme, one object is like another (hence, is in some respect formally identical to another) if and only if the two are causally related. Aquinas explicitly runs the entailment both ways, both from causality to likeness ("In an effect it's necessary that there be a likeness of the agent's form"),<sup>18</sup> and from likeness to causality ("Any two things that are alike must be related so that either one is the cause of the other or both are caused by one cause").<sup>19</sup>

18 "Cum enim omne agens agit sibi simile in quantum est agens, agit autem unumquodque secundum suam formam, necesse est quod in effectu sit similitudo formae agentis" (*ST* 1a 4.3c). See also *InDA* II.14.362–66 [sec. 425].

19 "Et ideo, cum omnis similitudo attendatur secundum convenientiam alicuius for-

*The identity of knower and known*

The first of these entailments is especially important for present purposes. It shows us that Aquinas's claims of a formal identity and a likeness relationship between knower and known are not just unargued assumptions in his theory of knowledge. Rather, these claims should be seen as based on causal facts about the relationship between cognitive agents and the outside world. It's because external objects make an impression on our sensory organs and (indirectly) on our higher-order faculties that those impressions, under the name 'species,' are formally identical to, and are likenesses of, external objects. Formal identity is thus guaranteed by our causal connections with the world. Of course, the skeptic can always question whether we really are in causal connection with an external world of the sort we imagine, and at this point Aquinas's answers become notoriously thin. For him, discussion begins with what he takes to be a fundamental fact: our internal impressions are causally produced by the external world. On this claim rests his doctrine of formal identity and hence his theory of how we have knowledge of the world around us.

The epistemological significance of the doctrine of formal identity is thus neither as striking nor as mysterious as Aquinas's students often claim. The doctrine neither solves nor bypasses any of the hard epistemological problems that have preoccupied modern thought. Nor is the doctrine as exotic as it might seem. In the end, formal identity is a matter of something entirely uncontroversial: that our ideas and impressions are caused from without. Here, as elsewhere, Aquinas's views about cognition are of a piece with his thoughts about the rest of reality. In this case, those views are merely an extension of his thoughts about ordinary causal relationships among physical objects. Here, as elsewhere, the principles that govern the mind are those that govern all of reality.

mae, oportet quod quaecumque sunt similia ita se habeant quod vel unum sit causa alterius vel ambo ex una causa causentur" (*QDV* 2.14c). See also *II Sent.* 3.3.1 ad 2; *IV Sent.* 50.1.3c.

## APPENDIX B

### Henry of Ghent and intelligible species

**H**ENRY OF GHENT is often described as having rejected intelligible species. Although this is nominally true, it gives the misleading impression that Henry held a view more radical than the one he actually held. His position, although it has received sustained attention both from his contemporaries and from modern historians,<sup>1</sup> is not nearly as philosophically interesting as that of Olivi and Ockham. In Part II, I show how Olivi and Ockham reject species on the basis of general and systematic considerations about the nature of knowledge and mind. Henry's position, in contrast, is rather narrow and technical. He takes issue with the standard Aristotelian account according to which (a) a phantasm (a kind of sensory image) is converted by agent intellect into a numerically different intelligible species; and (b) this intelligible species, now immaterial and universal, informs the possible intellect. This was how Aquinas, at any rate, described the process:

**b.1** Phantasms don't have the same manner of existing that the human intellect has . . . and so they cannot through their own power make an impression on the possible intellect. But through the power of the agent intellect, a kind of likeness results in the possible intellect as a result of agent intellect's turning toward the phantasms. . . . And this is how intelligible species are said to be abstracted from phantasms. It's not that some form that is numerically the same is first in phantasms and then produced in the possible intellect.<sup>2</sup>

- 1 For the medieval response to Henry's claims, see Scotus *Ordinatio* I.3.3.1, and the discussion by John of Reading edited in Gál (1969). In many ways Henry's position is easier to discern from Scotus's discussion than from Henry's own scattered presentation. The best modern discussion is perhaps still De Wulf (1895), ch. 3. See also Nys (1949a, b), who collects the most important texts; Tachau (1988), pp. 28–39, 56–61; and Spruit (1994), pp. 205–12.
- 2 “Sed phantasmata, cum sint similitudines individuorum, et existant in organis corporeis, non habent eundem modum existendi quem habet intellectus humanus, ut ex

The agent intellect, as a result of turning to the phantasms, generates a further, immaterial representation, numerically distinct from the phantasm it was abstracted from. This new representation, the intelligible species, informs the possible intellect and thereby produces cognition. As Aquinas says elsewhere, a form “in terms of the existence it has in the cognizer . . . makes the cognizer actually cognize” (3.14). According to Henry, in contrast, it is the phantasm itself, not the immaterial intelligible species, that makes an impression on the possible intellect. He agrees with the standard account that the phantasm must be abstracted by the agent intellect. But he denies that the phantasm is converted into an intelligible species. Instead, the phantasm itself, made immaterial and representing only the universal features of its object, is what brings about intellectual cognition. There is no need to posit an intelligible species numerically distinct from the phantasm. Indeed, he invokes the principle of parsimony at this point, just as Ockham does in arguing against species in general.<sup>3</sup> Henry thinks he can account for intellectual cognition without postulating anything that plays the role Aquinas gave to intelligible species.

Henry’s revised account has two central features. First, he thinks phantasms can be the efficient cause of intellectual cognition. Like Aquinas (see Ch. 8, sec. 1), Henry distinguishes between a first operation of intellect, simple understanding, and a more-complex second operation, which involves forming a mental word. Intellect itself is the active cause of this second operation; we saw in Chapter 8 how, for Henry, this operation gets divided into the understanding of non-complex universals and the understanding of complex propositions. Phantasms, however, are the efficient cause of the first operation.<sup>4</sup> To play this role, they must be made abstract by agent intellect. Agent intellect’s role is to separate phantasms from material and particular conditions. This is, however, merely a “virtual separation”: “Here there is no real distinction between the particular phantasm and the species

dictis patet: et ideo non possunt sua virtute imprimere in intellectum possibilem. Sed virtute intellectus agentis resultat quaedam similitudo in intellectu possibili ex conversione intellectus agentis supra phantasmata, quae quidem est repraesentativa eorum quorum sunt phantasmata, solum quantum ad naturam speciei. Et per hunc modum dicitur abstrahi species intelligibilis a phantasmatibus: non quod aliqua eadem numero forma, quae prius fuit in phantasmatibus, postmodum fiat in intellectu possibili, ad modum quo corpus accipitur ab uno loco et transfertur ad alterum” (ST 1a 85.1 ad 3). Cf. ST 1a 76.2c.

3 *Quodlibet* IV.7 (93vS), V.14 (179rC).

4 *Summa* 58.2 ad 3 (130vI); *Quod.* V.25 (204r–vK).

## Appendix B

that is the universal phantasm."<sup>5</sup> This universal phantasm is able to make an impression on intellect and bring about an act of cognition. Indeed, the possible intellect is entirely passive at this point:

- b.2 Agent intellect, by irradiating over phantasms spiritually, as a material light over colors, gives to them the character of a universal, and they move possible intellect by a simple understanding in which our intellect is purely passive and the universal is active.<sup>6</sup>

The phantasm here takes the place of the intelligible species inasmuch as on Henry's account it is now the phantasm that brings about the first operation of intellect.

But the phantasm doesn't do everything intelligible species were thought to do. The second central feature of Henry's account is that phantasms do not inform intellect in the way that intelligible species allegedly do. Sensory memory is informed by species, meaning that it contains a collection of representations or forms that are not at any one time actually being considered. Intellect doesn't have species in this way. To the extent that intellect preserves prior acts of cognition, it does so in the form of habits.<sup>7</sup> These are presumably distinct from species,

- 5 "Lumen agentis . . . separat ea [phantasmata] a conditionibus materialibus et particularibus" (*Summa* q.58 ad 3; 129vE). "Hic vero non est aliud re phantasma particulare et species quae est phantasma universale: sicut nec res universalis est alia a re particulari: nec ipsa species quae est phantasma universale, abstrahitur a phantasmate particulari per modum separationis realis aut generationis aut multiplicationis in intellectum . . . sed solum per quandam separationem virtuales" (*ibid.*, 130rG). Cf. *Quod*. V.15 (182rA).
- 6 "[N]ihil novit aut intelligit ab initio nisi opere intellectus agentis, qui irradiando super phantasmata spiritualiter, sicut lux materialis super colores, dat eis rationem universalis: et movent intellectum possibilem simplici intelligentia: in qua intellectus noster pure passivus est et universale activum" (*Quod*. V.25; 204rI). Cf. *Quod*. V.14: "Intellectus agens, qui est sicut vis quaedam activa in intellectu possibili ad abstrahenda phantasmata a dictis conditionibus. Quo facto est actu universale et movens obiective et immutans intellectum possibilem ad simplicem apprehensionem essentiae et quidditatis rei" (176vO); *Summa* q. 58 ad 3: "Intellectus autem possibilis . . . sit materia respectu formarum universalium et intelligibilium et passivus atque receptivus et nullo modo in intelligendo simplicia simplici notitia est activus: sed solummodo activae sunt species universalis phantasmatis" (131rL).
- 7 "Illa enim assimilatio quae fit ex speciei informatione, inest secundum actum absque actuali consideratione, ut patet de assimilatione memoriae sensitivae per speciem impressam ad id cuius est: qualis non est in vi intellectiva. Memoria enim intellectiva, si tamen sit proprie loquendo ponere eam, assimilatur rei per notitiam habituaalem quam tenet: et quae eam informat: etiam cum mens nihil actu intelligat" (*Quod*. IV.7; 95rA).

because they are dispositions rather than representations. The only time intellect has representations in itself is when it is actually engaged in cognition. Henry takes the Aristotelian claim that intellect never understands without a phantasm (*De anima* iii.7; 431a17) to mean that intellect, whenever it cognizes, has to draw on phantasms for its entire representation of the external object. The only things stored in intellect that are at all like representations of the external object are habits, and they “don’t suffice without species for a human being’s act of intellectual cognition – and not species intellect has in itself, but ones in the sensory power.”<sup>8</sup> So whenever intellect actually engages in cognition, it has to draw on phantasms as the representations intellectual cognition is based on.

Whatever interest Henry’s revised account may hold, we can see that it does not raise the kind of general philosophical problems posed by Olivi’s and Ockham’s rejection of species. For one thing, Henry preserves sensible species. Moreover, even at the level of intellect, he does not eliminate all kinds of representations. After abstracted phantasms make their impression on intellect and thereby produce the first activity of intellect, an apprehension of simple essences, intellect goes on to form more-complete and complex judgments about these essences. In so doing, intellect forms its own species or mental word. Henry has no quarrel with species formed in this way, that is, species that are the result of intellectual activity: “What is intellectually cognizing and what is cognized are assimilated to each other *through an act of intellect*, rather than through some information of an impressed species.”<sup>9</sup> The result of this act of intellect is the *verbum*. Elsewhere, he emphasizes that “in every act of intellectual cognition, however slight, it is necessary to form a *verbum*.”<sup>10</sup> This mental word, he makes clear, is not just an act of cognition: he refers to it as an internal object that informs intellect (cf.

8 “Ut secundum hoc memoria intellectualis, sive in homine, sive in angelo, non sit contentiva specierum impressarum: sicut est memoria sensitiva: sed tantummodo habituum scientialium qui angelo sufficiunt ad actum intelligendi omnia absque speciebus: homini autem non absque speciebus: non quas habet in se intellectus: sed in vi sensitiva. Ita quod intellectus noster potest sine habitu intelligere: sed non sine phantasmate” (*Quod*. V.25; 204vK).

9 “Secundum hunc etiam modum intelligens et intellectum sibi assimilantur: et hoc per actum intelligendi potius quam per aliquam informationem speciei impressivae” (*Quod*. IV.7; 95rA).

10 “Dicendum igitur quod in omni actu intelligendi, quantumcumque modicus sit, necesse est formare verbum” (*Quod*. II.6; vol. 6, 32). Cf. *Summa* 58.2 ad 3 (130vI–131rL).

## Appendix B

8.3).<sup>11</sup> Hence, his rejection of species is by no means a general challenge to the standard Scholastic account of mental representation – even at the level of intellect. For this reason, it's deeply misleading to classify Henry with Olivi and Ockham, as critics of the species theory. It is not species per se that Henry rejects but merely one rather technical aspect of the standard account.

11 "[C]oncipit intellectus verbum complexum quo fit cogitatio quaedam formata illo verbo ut est obiectum intellectus" (*Quod. V.26 ad 2; 206rR*). See also *Summa* 40.7.

## References

- Adams, Marilyn McCord (1977). "Ockham's nominalism and unreal entities," *Philosophical Review* 86:144–76.
- (1978). "Ockham's Theory of Natural Signification," *Monist* 61:444–59.
- (1987). *William Ockham*, Notre Dame.
- Adler, Mortimer (1968). "Sense Cognition: Aristotle v. Aquinas," *New Scholasticism* 42:578–91.
- Anscombe, G. E. M., and Peter Geach (1961). *Three Philosophers*, Oxford.
- Aristotle (1984). *The Complete Works of Aristotle* (revised Oxford translation), Jonathan Barnes (ed.), Princeton.
- Augustine (1968). *De trinitate libri XV* (Corpus Christianorum, Series Latina, 50), Turnhout.
- (1970). *Contra academicos* (Corpus Christianorum, Series Latina, 29), Turnhout.
- (1986). *Soliloquia* (Corpus scriptorum ecclesiasticorum Latinorum, 89) W. Hormann (ed.), Vienna.
- Austin, J. L. (1964). *Sense and Sensibilia*, Oxford.
- Ayer, A. J. (1940). *The Foundations of Empirical Knowledge*, London.
- Baertschi, Bernard (1986). "Sensus est quodammodo ipsa sensibilia: Le réalisme Aristoteles et le problem des erreurs des sens," *Revue de Théologie et Philosophie* 118:237–53.
- Bennett, Jonathan (1971). *Locke, Berkeley, Hume: Central Themes*, Oxford.
- Berkeley, George (1965). *The Principles of Human Knowledge in Berkeley's Philosophical Writings*, D. M. Armstrong (ed.), New York, 41–128.
- Bettini, Orazio (1958). "Olivi di Fronte ad Aristotele," *Studi Francescani* 55:176–97.
- Boehner, Philotheus (1946). "The Realistic Conceptualism of William Ockham," *Traditio* 4:307–35.
- Boethius (1957). *Philosophiae consolatio*, L. Bieler (ed.) (Corpus Christianorum, Series Latina, 94), Turnhout.
- Bonaventure (1956). *Itinerarium Mentis in Deum*, St. Bonaventure, NY.
- Brentano, Franz (1973). *Psychology from an Empirical Standpoint*, A. C. Rancurello et al. (trs.), London.



## References

- Burr, David (1971). "Peter John Olivi and the Philosophers," *Franciscan Studies* 31:41–71.
- (1976). "The Persecution of Peter Olivi," *Transactions of the American Philosophical Society* 66:3–98.
- (1889). *Olivi and Franciscan Poverty: The Origins of the Usus Pauper Controversy*, Philadelphia.
- Cajetan (1889). *Commentaria in partem primam Summae theologiae*, Rome. (Printed with Thomas Aquinas (1882–), v.5.)
- Cajetan of Thiene (1494). *Expositio Tractatus Hentisberi de Scire et Dubitare*, Venice.
- Casey, Gerard (1992). "Immateriality and Intentionality," in Fran O'Rourke (ed.) *At the Heart of the Real*, Dublin, 97–112.
- Chomsky, Noam (1995). "Language and Nature," *Mind* 104:1–61.
- Churchland, Patricia (1986). *Neurophilosophy: Toward a Unified Science of the Mind-Brain*, Cambridge, MA.
- Cohen, Sheldon (1982). "St. Thomas Aquinas on the Immaterial Reception of Sensible Forms," *Philosophical Review* 91:193–209.
- Costa Ben Luca (1878). *De differentia animae et spiritus*, C. G. Barach (ed.), Innsbruck (repr. Frankfurt a.M., 1968).
- Courtenay, William (1987). *Schools and Scholars in Fourteenth-Century England*, Princeton.
- Dancy, Jonathan (1988). *Perceptual Knowledge* (Oxford Readings in Philosophy), Oxford.
- Day, Sebastian (1947). *Intuitive Cognition: A Key to the Significance of the Later Scholastics*, St. Bonaventure, NY.
- Decker, Bruno (1967). *Die Gotteslehre des Jakob von Metz* (Beiträge zur Geschichte der Philosophie des Mittelalters 42,1), Münster.
- Deely, John (1968). "The Immateriality of the Intentional as Such," *New Scholasticism* 42:293–306.
- Deferrari, Roy, and M. Inviolata Barry (1948). *A Lexicon of St. Thomas Aquinas*, Baltimore.
- De Libera, Alain (1993). *La Philosophie Médiévale*, Paris.
- Dennett, Daniel (1991). *Consciousness Explained*, Boston.
- Descartes, René (1984). *The Philosophical Writings of Descartes*, John Cottingham, Robert Stoothoff, Dugald Murdoch (trs.), Cambridge.
- De Wulf, Maurice (1895). *Histoire de la Philosophie Scolastique dans les Pays-Bas et la Principauté de Liège jusqu'à la Révolution Française*, Louvain.
- Douie, Decima (1932). *The Nature and Effect of the Heresy of the Fraticelli*, Manchester.
- Durand of St. Pourçain (1974). In *Petri Lombardi Sententias theologicas commentariorum libri iiii*, Ridgewood, NJ.
- Fitzpatrick, Noel (1971). "Walter Chatton on the Univocity of Being: A Reaction to Peter Aureoli and William Ockham" *Franciscan Studies* 31:88–177.
- Gál, Gedeon (1967). "Gualteri de Chatton et Guillelmi de Ockham controversia de natura conceptus universalis," *Franciscan Studies* 27:191–212.

## References

- (1969). "Quaestio Ioannis de Reading de necessitate specierum intelligibilium defensio doctrinae scoti," *Franciscan Studies* 29:66–156.
- (1971). "Henricus de Harclay: Quaestio de Significato Conceptus Universalis," *Franciscan Studies* 31:178–234.
- Garceau, Benoît (1968). *Judicium. Vocabulaire, sources, doctrine de Saint Thomas d'Aquin*, Montreal.
- Gieben, S. (1968). "Bibliographia Oliviana (1885–1967)," *Collectanea Franciscana* 38:167–95.
- Gilson, Étienne (1934). "Sur quelques difficultés de l'illumination augustiniennne," *Revue neoscholastique de philosophie* 36:321–31.
- (1937). *The Unity of Philosophical Experience*, New York.
- (1955). *A History of Christian Philosophy in the Middle Ages*, New York.
- (1956). *The Christian Philosophy of St. Thomas Aquinas*, New York.
- (1986). *Thomist Realism and the Critique of Knowledge*, Mark A. Wauck (tr.), San Francisco.
- Goddu, André (1984). "William of Ockham's Arguments for Action at a Distance," *Franciscan Studies* 44:227–44.
- Godfrey of Fontaines (1928). *Le Neuvième Quodlibet*, J. Hoffmans (ed.), Louvain.
- Haldane, John (1983). "Aquinas on Sense Perception," *Philosophical Review* 92:233–39.
- (1989a). "Brentano's Problem," *Grazer Philosophische Studien* 35:1–32.
- (1989b). "Reid, Scholasticism and Current Philosophy of Mind," in M. Dalgarno and E. Matthews (eds.), *The Philosophy of Thomas Reid*, Dordrecht, 285–304.
- Hayen, André (1954). *L'intentionnel selon Saint Thomas*, Bruges.
- Hedwig, Klaus (1978). "Der Scholastische Kontext des Intentionalen bei Brentano," *Grazer Philosophische Studien* 5:67–82.
- Henry of Ghent (1518). *Quodlibeta*, Paris (reprinted 1961, Louvain).
- (1520). *Summa quaestionum ordinariarum*, Paris (reprinted 1953, St. Bonaventure, NY).
- (1979–). *Henrici de Gandavo Opera Omnia*, Leiden.
- (1993). *Quodlibetal Questions on Free Will*, R. J. Teske (tr.), Milwaukee.
- Hervaeus Natalis (1647). In *Quatuor Libros Sententiarum Commentaria*, Paris (reprinted 1967).
- Hoffman, Paul (1990). "St. Thomas Aquinas on the Halfway State of Sensible Being," *Philosophical Review* 99:73–92.
- Hoffmann, Fritz (1972). *Die theologische Methode des Oxforder Dominikanerlehrers Robert Holcot (Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters, NF 5)*, Münster.
- Hyman, Arthur, and James Walsh (1973). *Philosophy in the Middle Ages*, Indianapolis.
- Jackson, Frank (1977). *Perception: A Representative Theory*, Cambridge.
- Jansen, Bernard (1921). *Die Erkenntnislehre Olivis*, Berlin.
- (1935). "Der Augustinismus des Petrus Johannis Olivi," in *Aus der Geisteswelt*

## References

- des Mittelalters (Beiträge zur Geschichte der Philosophie des Mittelalters, supp. vol. 3)*, Münster, 878–95.
- John Duns Scotus (1891–95). *Opera Omnia*, Paris (Vivès).  
(1950–). *Ordinatio*, in C. Balic et al. (eds.) *Opera omnia*, Vatican.  
(1966). *De primo principio*, in A. Wolter (ed.) *A Treatise on God as First Principle*, Chicago.  
(1975). *God and Creatures. The Quodlibetal Questions*, Felix Alluntis and Allan Wolter (trs.), Washington.
- Jolivet, Jean (1988). "The Arabic Inheritance," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy*, Cambridge.
- Kennedy, Leonard A. (1983). "Philosophical Skepticism in England in the Mid-Fourteenth Century," *Vivarium* 21:35–57.  
(1985). "Late-Fourteenth-Century Philosophical Skepticism at Oxford," *Vivarium* 23:124–51.
- Kenny, Anthony (1980). *Aquinas (Past Masters)*, New York.  
(1985). *Wyclif (Past Masters)*, New York.  
(1993). *Aquinas on Mind*, New York.
- Klima, Gyula (1993). "The Changing Role of *Entia Rationis* in Mediaeval Semantics and Ontology: A Comparative Study with a Reconstruction," *Synthese* 96:25–58.
- Koch, Josef (1930). "Der Sentenzenkommentar des Petrus Johannis Olivi," *Recherches de théologie ancienne et médiévale* 2:290–310.
- Kretzmann, Norman (1993). "Philosophy of Mind," in Kretzmann and Stump (1993), 128–59.
- Kretzmann, N., A. Kenny, and J. Pinborg (eds.) (1982). *The Cambridge History of Later Medieval Philosophy*, Cambridge.
- Kretzmann, N., and E. Stump (eds.) (1988). *The Cambridge Translations of Medieval Philosophical Texts. Vol. 1: Logic and the Philosophy of Language*, Cambridge.  
(1993). *The Cambridge Companion to Aquinas*, Cambridge.
- Kuksewicz, Z. (1982). "The Potential and the Agent Intellect," in Kretzmann, Kenny, and Pinborg (1982), 595–601.
- Laberge, Damascus (1935). "Fr. Petri Ioannis Olivi, O.F.M., tria scripta sui ipsius apologetica annorum 1283 et 1285," *Archivum Franciscanum Historicum* 28:115–155, 374–407.
- Lindberg, David (1976). *Theories of Vision from Al Kindi to Kepler*, Chicago.  
(1978). "Medieval Latin Theories of the Speed of Light," in René Taton (ed.) *Roemer et la vitesse de la lumière*, Paris, 45–72.
- Locke, John (1975). *An Essay Concerning Human Understanding*, Oxford.
- Lonergan, Bernard J. (1967). *Verbum: Word and Idea in Aquinas*, Notre Dame.
- Long, A. A., and D. N. Sedley (1987). *The Hellenistic Philosophers*, Cambridge.
- MacDonald, Scott (1993). "Theory of Knowledge," in Kretzmann and Stump (1993), 160–95.

## References

- McGrade, A. S. (1988). "Some Varieties of Skeptical Experience: Ockham's Case," in *Die Philosophie im 14. und 15. Jahrhundert*, Amsterdam, 421–38.
- Mackie, J. L. (1976). *Problems from Locke*, Oxford.
- Maier, Anneliese (1951). *Zwei Grundprobleme der Scholastischen Naturphilosophie*, Rome.
- (1955). *Metaphysische Hintergründe der spätscholastischen Naturphilosophie*, Rome.
- (1963). "Das Problem der Evidenz in der Philosophie des 14. Jahrhunderts," *Scholastik* 38:183–225 (reprinted in 1967).
- (1967). "Das Problem der 'Species Sensibiles in Medio' und die neue Naturphilosophie des 14. Jahrhunderts," in *Ausgehendes Mittelalter II*, Rome (originally published 1963), 419–51.
- Marenbon, John (1987). *Later Medieval Philosophy (1150–1350). An Introduction*, London.
- Maritain, Jacques (1959). *The Degrees of Knowledge*, London.
- Marras, Ausonio (1974). "The Thomistic Roots of Brentano's Conception of Intentionality," *Rassegna di Scienze Filosofiche* 27:213–26.
- (1976). "Scholastic Roots of Brentano's Conception of Intentionality," in *The Philosophy of Brentano*, London, 128–39.
- Marrone, Steven (1985). *Truth and Scientific Knowledge in the Thought of Henry of Ghent*, Cambridge, MA.
- Maurer, A. (1950). "'Ens diminutum': A Note on its Origin and Meaning," *Mediaeval Studies* 12:216–22.
- (1961). "Henry of Harclay's Questions on the Divine Ideas," *Mediaeval Studies* 23:163–93.
- Meissner, William (1958). "Some Aspects of the Verbum in the Texts of St. Thomas," *Modern Schoolman* 36:1–30.
- Michalski, Konstanty (1969). "Les sources du criticisme et du scepticisme dans la philosophie du XIV<sup>e</sup> siècle," in *La Philosophie au XIV<sup>e</sup> Siècle. Six Études*, Frankfurt (originally published 1924), 35–65.
- Michaud-Quantin, Pierre (1970). "Les Champs Semantiques de 'Species.' Tradition Latine et Traductions du Grec," in *Études sur le vocabulaire philosophique du Moyen Age*, Rome, 113–50.
- Moody, E. A. (1967). "William of Ockham," in P. Edwards (ed.) *Encyclopedia of Philosophy*, New York, 306–17.
- (1975). "William of Auvergne and His Treatise *De Anima*," in *Studies in Medieval Philosophy, Science and Logic*, Berkeley (originally published 1933), 1–110.
- Normore, Calvin (1990). "Ockham on Mental Language," in *Historical Foundations of Cognitive Science*, J. C. Smith (ed.), Dordrecht, 53–70.
- Nuchelmans, Gabriel (1973). *Theories of the Proposition: Ancient and Medieval Conceptions of the Bearers of Truth and Falsity* (North-Holland Linguistic Series, 8), Amsterdam.

## References

- Nussbaum, Martha, and A.O. Rorty (eds.) (1992). *Essays on Aristotle's De anima*, Oxford.
- Nys, Theophilus (1949a). *De psychologia cognitionis humanae secundum Henricum Gandavensem*. Excerpta ex disseratione Pontificae Universitatis Gregoriana, Rome.
- (1949b). *De werking van het menselijk verstand volgens Hendrik van Gent*, Louvain.
- Owens, Joseph (1993). "Aristotle and Aquinas," in Kretzmann and Stump (1993), 38–59.
- Pacetti, Dionysius (1954). "Introduzione," in Peter Olivi, *Quaestiones quatuor de domina*, Quaracchi, 1\*–60\*.
- Panaccio, Claude (1992). "From Mental Word to Mental Language," *Philosophical Topics* 20:125–47.
- Partee, Carter (1960). "Peter John Olivi: Historical and Doctrinal Study," *Franciscan Studies* 20:215–60.
- Pasnau, Robert (1994). *Forms of Knowing: Theories of Cognition in the Later Middle Ages* (Ph.D. dissertation, Cornell University).
- (1995a). "Henry of Ghent and the Twilight of Divine Illumination," *Review of Metaphysics* 49:49–75.
- (1995b). "William Heytesbury on Knowledge: Epistemology without Necessary and Sufficient Conditions," *History of Philosophy Quarterly* 12:347–66.
- (forthcoming). "Petri Iohannis Olivi Tractatus de Verbo," in *Essays in Honor of Fr. Gedeon Gál, O.F.M. on his Eightieth Birthday*, St. Bonaventure, NY.
- Perler, Dominik (1994a). "What Am I Thinking About? John Duns Scotus and Peter Aureol on Intentional Objects," *Vivarium* 32:72–89.
- (1994b). "Peter Aureol vs. Hervaeus Natalis on Intentionality," *Archives d'histoire Doctrinale et Littéraire du Moyen Age* 61:227–62.
- Peter Aureol (1596). *Commentariorum in primum librum Sententiarum*, Rome.
- (1956). *Scriptum super primum Sententiarum*, E. M. Buytaert (ed.), St. Bonaventure, NY.
- Peter John Olivi (1509a). *Quodlibeta*, Venice.
- (1509b). *Epistola ad R.*, in Peter John Olivi (1509a), ff. 51/63v–53/65r.
- (1922–26). *Quaestiones in Secundum Librum Sententiarum* (Bibliotheca Franciscana Scholastica 4–6), Bernard Jansen (ed.), Quaracchi.
- Peter of Mantua (1477). *Logica*.
- Pinborg, Jan (1980). "Radulphus Brito on Universals," *Cahiers de l'Institut du Moyen Age Grec et Latin* 35:56–142.
- Price, H. H. (1932). *Perception*, London.
- Putallaz, François-Xavier (1991). *Le sens de la réflexion chez Thomas d'Aquin*, Paris.
- Putnam, Hilary (1975). "The Meaning of 'Meaning'" in *Mind, Language and Reality. Philosophical Papers v. 2*, Cambridge, 215–71.
- (1981). *Reason, Truth and History*, Cambridge.
- (1994a). "Aristotle after Wittgenstein," in *Words and Life*, Cambridge, MA, 62–81.

## References

- (1994b). "Sense, Nonsense, and the Senses: An Inquiry into the Powers of the Human Mind (The 1994 Dewey Lectures)," *Journal of Philosophy* 91:445–517.
- Read, Stephen (1977). "The Objective Being of Ockham's *Ficta*," *Philosophical Quarterly* 27:14–31.
- Reid, Thomas (1969). *Essays on the Intellectual Powers of Man*, Cambridge, MA.
- Robert Holcot (1993). *Sex articuli*, in *Die "Conferentiae" des Robert Holcot O.P. und die akademischen Auseinandersetzungen an der Universität Oxford 1330–1332 (Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters, NF 36)*, F. Hoffmann (ed.), Münster, 66–127.
- (1995). *Seeing the Future Clearly: Questions on Future Contingents*, P. Streveler, K. Tachau et al. (eds.), Toronto.
- Roger Bacon (1897–1900). *The 'Opus Majus' of Roger Bacon*, J. H. Bridges (ed.), Oxford.
- (1978). *De signis*, K. M. Fredborg et al. (eds.), *Traditio* 34:75–136.
- (1983). *De multiplicatione specierum*, in D. Lindberg (ed.) *Roger Bacon's Philosophy of Nature*, Oxford.
- Rohmer, J. (1928). "La théorie de l'abstraction dans l'école franciscaine, de Alexandre de Halès à Jean Peckam," *Archives d'Histoire Doctrinale et Littéraire du Moyen Age* 3:105–84.
- Rorty, Richard (1979). *Philosophy and the Mirror of Nature*, Princeton.
- Ross, James (1992). "Immaterial Aspects of Thought," *Journal of Philosophy* 89:136–50.
- Schepers, Heinrich (1970). "Holcot contra dicta Crathorn," *Philosophisches Jahrbuch* 77:320–54.
- (1972). "Holcot contra dicta Crathorn II," *Philosophisches Jahrbuch* 79:106–36.
- Schmidt, Robert (1966). *The Domain of Logic According to Saint Thomas Aquinas*, The Hague.
- Solère, J. L. (1989). "La notion d'intentionnalité chez Thomas d'Aquin," *Philosophie* 24:13–36.
- Sorabji, Richard (ed.) (1990). *Aristotle Transformed: The Ancient Commentators and their Influence*, Ithaca, NY.
- (1991). "From Aristotle to Brentano: The Development of the Concept of Intentionality," in *Oxford Studies in Ancient Philosophy*, suppl. vol., 1991: *Aristotle and the Later Tradition*, H. Blumenthal and H. Robinson (eds.), Oxford, 227–59.
- (1992). "Aristotle's Theory of Sense Perception," in Nussbaum and Rorty (1992), 195–225.
- Spade, Paul Vincent (1990). "Ockham, Adams and Connotation: A Critical Notice of Marilyn Adams, *William Ockham*," *Philosophical Review* 99:593–612.
- Spiegelberg, Herbert (1976). "'Intention' and 'Intentionality' in the Scholastics, Brentano and Husserl," in *The Philosophy of Brentano*, London (originally published in 1936), 108–27.

## References

- Spruit, Leen (1994). *Species Intelligibilis: From Perception to Knowledge. Volume One: Classical Roots and Medieval Discussions*, Leiden.
- Stump, Eleonore, and Norman Kretzmann (1995). "God's Knowledge and Its Causal Efficacy," in Thomas D. Senor (ed.) *The Rationality of Belief and the Purity of Faith*, Ithaca, NY, 94–124.
- Suarez, Francisco (1994). *On Efficient Causality. Metaphysical Disputations 17, 18, and 19*, New Haven, CT.
- Tabarroni, Andrea (1989). "Mental Signs and the Theory of Representation in Ockham," in Eco and Marmo (eds.) *On the Medieval Theory of Signs*, Amsterdam, 195–224.
- Tachau, Katherine (1982). "The Problem of the Species in medio at Oxford in the Generation after Ockham," *Medieval Studies* 44:394–443.
- (1988). *Vision and Certitude in the Age of Ockham. Optics, Epistemology and the Foundations of Semantics, 1250–1345*, Leiden.
- Thomas Aquinas (1856). *In quatuor libros Sententiarum*, Parma.
- (1882–). *S. Thomae Aquinatis Doctoris Angelici Opera Omnia*, Vatican (Leonine).
- (1950–53). *Summa theologiae*, P. Caramello (ed.), Rome (Marietti).
- (1952). *Super Evangelium S. Ioannis lectura*, Raphael Cai (ed.), Rome (Marietti).
- (1953a). *Quaestiones disputatae*, R. M. Spiazzi (ed.), Rome (Marietti).
- (1953b). *Super secundam Epistolam ad Corinthios lectura*, Raphael Cai (ed.), Rome (Marietti).
- (1954a). *In octo libros Physicorum Aristotelis expositio*, M. Maggiòlo (ed.), Rome (Marietti).
- (1954b). *Opuscula philosophica*, R. M. Spiazzi (ed.), Rome (Marietti).
- (1956). *Quaestiones quodlibetales*, R. M. Spiazzi (ed.), Rome (Marietti).
- (1961–67). *Liber de veritate Catholicae fidei contra errores infidelium, seu Summa contra gentiles*, C. Pera, P. Marc, and P. Carmello (eds.), Rome (Marietti).
- (1968). *Quaestiones de anima*, James H. Robb (ed.), Toronto.
- (1971). *In duodecim libros Metaphysicorum Aristotelis expositio*, M. R. Cathala and R. M. Spiazzi (eds.), Rome (Marietti).
- (forthcoming). *A Commentary on Aristotle's De anima*, R. Pasnau (tr.), New Haven, CT.
- Torrell, Jean-Pierre (1996). *Saint Thomas Aquinas, volume 1: The Person and His Work*, Robert Royal (tr.), Washington, DC.
- Tweedale, Martin (1990). "Mental Representations in Later Medieval Scholasticism," in J. C. Smith (ed.) *Historical Foundations of Cognitive Science*, Dordrecht, 35–51.
- (1992). "Origins of the Medieval Theory That Sensation Is an Immaterial Reception of a Form," *Philosophical Topics* 20:215–31.
- Verbeke, Gerard (1983). *The Presence of Stoicism in Medieval Thought*, Washington.
- Walter Chatton (1989). *Reportatio et lectura super Sententias. Collatio ad librum primum et Prologus*, Joseph Wey (ed.), Toronto.
- Warnock, G. J. (1953). *Berkeley*, London.

## References

- Wéber, Édouard-Henri (1970). *La controverſie de 1270 à l'Université de Paris et ſon retentiſſement ſur la penſée S. Thomas d'Aquin*, Paris.
- Weinberg, Julius (1977). *Ockham, Descartes, and Hume*, Madison, WI.
- Weisheipl, James A. (1974). *Friar Thomas d'Aquino: His Life, Thought, and Work*, London.
- William of Alnwick (1937). *Quaestiones disputatae de esse intelligibili* (Bibliotheca Franciscana Scholastica 10), A. Ledoux (ed.), Quaracchi.
- William of Auvergne (1674). *De anima*, in *Opera Omnia*, Paris (reprinted 1963, Frankfurt a.M.).
- William Crathorn (1937). *Quaestiones de universalibus Magistorum Crathorn*, J. Kraus (ed.), MÜNSTER.
- (1988). *Quästionen zum erſten ſentenzēnbuch (Beiträge zur Geſchichte der Philoſophie und Theologie des Mittelalters NF 29)*, Fritz Hoffmann (ed.), MÜNSTER.
- William Ockham (1957). *Philosophical Writings*, Philotheus Boehner (tr.), Indianapolis (revised edition published in 1990).
- (1967–89). *Opera Philosophica et Theologica*, St. Bonaventure, NY.
- (1974). *Ockham's Theory of Terms*, Michael J. Loux (tr.), Notre Dame.
- (1980). *Ockham's Theory of Propositions*, Alfred Freddoso and Henry Schuurman (trs.), Notre Dame.
- (1991). *Quodlibetal Questions*, Alfred Freddoso and Francis Kelley (tr.), New Haven, CT.
- Wippel, John (1995). *Mediaeval Reactions to the Encounter Between Faith and Reason (The Aquinas Lecture, 1995)*, Milwaukee.
- Wittgenstein, Ludwig (1961). *Tractatus Logico-Philosophicus*, London.
- Wood, Rega (1995). "Richard Rufus' 'Speculum animae': Epistemology and the Introduction of Aristotle in the West," in *Die Bibliotheca Amploniana (Miscellanea Mediaevalia 23)*, Berlin, 86–109.
- Yokoyama, T. (1967). "Zwei Quaestiones des Jacobus de Aesculo über das Esse Obiectivum," in *Wahrheit und Verkündigung*, vol. I, L. Scheffczyk et al. (eds.), München, pp.31–74.





## Index

*Medieval authors are listed by first name.*

- abstraction, 151, 153, 252, 267, 275, 306–7  
abstractive cognition, 24, 163  
abstract objects, 75, 255, 262, 267, 270–71  
accidents, 67, 92–93, 98, 108, 110, 114,  
118, 230; species as, 191, 193  
action at a distance, 25–26, 162–65, 167,  
174, 189–193  
act-object doctrine, 26, 197, 200–14, 218–  
19, 221, 259, 265, 277, 290  
act of cognition, 81, 84, 165, 182n, 192,  
204, 255, 271, 275, 278, 284–85, 289,  
296–97, 309. *See also* likeness, act itself  
as  
act question, 143–44, 152, 156  
act theory, 21–23, 25–27, 82–85, 121–24,  
161, 164, 190–94, 221, 254–55, 265,  
275–76, 278, 281n, 282, 283–85, 288–  
89, 290–94  
actuality (*actus*), as related to action, 122  
Adams, Marilyn McCord, 23n, 24n, 25n,  
32n, 60–62, 70n, 73n, 81n, 82n, 104n,  
118n, 119, 163n, 167n, 192n, 278n, 281  
Adam Wodeham, 2  
Adler, Mortimer, 42n  
adverbial theory of perception, 123  
afterimages, 21, 71, 74, 180, 183–84, 186,  
187, 230  
air, and criterion for cognition, 39, 47, 49–  
60, 145  
Albert the Great, 10, 12  
Alexander of Aphrodisias, 12  
Alluntis, Felix, 147n  
analytic philosophy, 8  
angels, 13, 17, 20, 58, 61, 117, 137, 176n,  
193; as spiritual, 37–38, 64–65  
animals, nonhuman, 36, 53–54, 58, 104  
apparent existence (*esse apparens*), 71–74,  
248–49, 280  
appearances versus reality, 4, 75  
appetite: directing attention, 137, 156;  
found in everything, 57; multiform,  
57–59; sensory, 4  
apprehension: sensory, 138–42, 203–4;  
noncomplex, 251–52; as nonsensory,  
203–4; of a proposition, 289n  
Arabic philosophy, 11–12, 63n  
Aristotle, 1, 11–12, 42n, 43, 63n, 84, 102,  
168n, 181, 188, 196, 206n, 211, 266–67;  
and Christianity, 10–11; *De anima*, 12,  
14n, 41, 49, 64n, 66–67, 122, 126, 146n,  
156, 217, 295–96, 309; in the medieval  
curriculum, 10; opposition to, 10–11,  
20, 130, 177n, 222; and passivity (cog-  
nitive), 125–27; rediscovery of, 1, 9–  
11. *See also* cognition, Aristotelian the-  
ory of  
attention (cognitive): in Aquinas, 59–60,  
134–38, 139, 141, 144–46, 155–56, 205,  
207; directed toward species, 15, 205–  
8; as distinguishing feature of cog-  
nition, 57, 59–60, 145–46; generalized,  
133, 155; impeded by species, 5, 244–  
45; need for, 24, 130–34, 147, 149,  
151–52, 181; in Olivi, 130–34, 155, 170,

## Index

- attention (cognitive) (*cont.*)  
177–81, 188–89, 236–39, 245, 276; virtual, 21, 25, 133, 168–75, 181, 184, 185, 188, 241
- Augustine, 9–11, 20, 74, 121, 131, 134–35, 156, 169, 172, 173n, 177n, 179–81, 222, 255
- Austin, J. L., 220, 242–43
- authority, *see* medieval philosophy, and authority
- Averroes, 10, 12, 64n, 84
- Avicenna, 10, 12
- Ayer, A. J., 182–83, 186n
- Baertschi, Bernard, 183n
- Barry, M. Inviolata, 172n
- bats, cognition in, 172
- bees, cognition in, 54, 57
- behavior, 51, 54
- belief: cognition not defined in terms of, 50, 54, 57–58; as determining cognitive object, 216–219, 268
- Bennett, Jonathan, 241–43
- Berkeley, George, 177
- Bernard of Arezzo, 235n
- Bettini, Orazio, 10n
- Boehner, Philotheus, 24n, 278n
- Boethius, 125–26, 129–30, 134
- Bonaventure, 9, 10–11, 20
- brain, 7, 12, 254
- Brentano, Franz, 34–35, 63
- Burley, Walter, 280
- Burnyeat, Myles, 42n
- Burr, David, 10n, 19n, 20n, 21n
- Cajetan, 182
- Cajetan of Thiene, 7n
- Casey, Gerard, 42n
- categories, Aristotelian, 66, 77, 84–85, 90, 192
- causality: corporeal–incorporeal, 176–77, 179, 181, 306–7; effect determining cause, 117–18, 120; and essential ordering, 148–49; knowledge of, 17–18, 166, 252; in mental representation, 3, 4, 102, 113–21; object–percipient, 22, 25–26, 106, 113, 161–65, 182, 186–89, 255, 291, 293, 300, 304–5; and virtual contact, 173–74. *See also* action at a distance; form, as causal agent; objects (real and external), causal role of; species, as causal intermediaries
- certainty, 223, 227–28, 231, 232, 234
- chameleon, 91, 101
- Chomsky, Noam, 36n
- Christ, images of, 206n
- Churchland, Patricia, 290n
- cognition: Aquinas's criterion for, 13–14, 31–35, 47–57, 145–46; Aristotelian theory of, 2, 11–12, 125, 133–34, 290, 306; comes in degrees, 52–54, 56; definition of, 4, 12; immateriality of, 2, 31, 49–50, 52, 55–56; immediacy of, 11, 15, 25–27, 74, 199–200, 202–3, 206, 213–19, 240–44, 247, 249, 291, 299–300 (*see also* direct realism); intellective, *see* intellective cognition; and materialism, 36–37, 42–47; mediated by representations, 2, 3, 179–81, 195–97, 215, 261, 283–84, 292; non-Aristotelian theories of, 11, 20–23, 131–34, 146–47; Ockham's antireductionist account of, 60–62; passivity of, *see* passivity (cognitive); place of, in medieval philosophy, 7–11; relationship to theology, 9; requires object, 187–88, 281–83, 285, 288, 289; sensory, *see* sensation. *See also* likeness
- cognized existence, 70
- Cohen, Sheldon, 42n
- coherentism, 7
- color, 7, 15n, 16, 17, 52, 53, 107–8, 140–41, 188, 190; different hues coexisting in medium, 48, 77; existing intentionally, 34, 38–39, 41–42, 44, 48, 50, 76, 127; existing naturally, 66–67, 90–100, 109; materiality of, 43, 76–77
- commentators on Aristotle (pre-Scholastic), 11–12, 50n, 63n, 182
- common sense, 127, 141–2
- composition and division (intellective), 129, 212
- computers, 109; as cognitive, 55–56, 58
- computer science, 7
- concept, 13, 52, 54, 99, 103–5, 151–53, 216, 256, 269–70, 271, 276, 284–86, 289; as intentionally existing, 80–85. *See also* word, mental

## Index

- Condemnation of 1277, 19  
confused cognition, 281, 285  
consciousness, 103, 180, 290n; cognition  
    not defined in terms of, 54; dividing  
    apprehension from judgment, 140–42;  
    of species, 269  
convention, signifying by, 93, 99–100,  
    102, 104, 112n, 113  
conversion to, *see* turning toward  
corporeal accounts of cognition, *see*  
    materialism  
corporeal change, 46  
Costa Ben Luca, 46  
Courtenay, William, 12n, 23n, 24n  
  
Dancy, Jonathan, 197n  
Day, Sebastian, 24n  
deception. *See* illusion; God, as deceiver  
deduction, 252  
Deely, John, 42n  
Deferrari, Roy, 172n  
De Libera, Alain, 11n  
Dennett, Daniel, 290n  
Descartes, René, 4–5, 7, 8, 71, 193, 196,  
    235, 293–94  
desire: cognition not defined in terms of,  
    50, 54, 57–60. *See also* appetite  
determination question, 143–44, 152, 156  
De Wulf, Maurice, 306n  
diminished being, 70n, 79n  
direct realism, 3, 22, 25, 162, 165, 167,  
    178–81, 195, 197n, 219, 221, 263, 270,  
    276, 277, 279, 290, 299–303. *See also*  
    cognition, immediacy of; cognition,  
    mediated by representations  
disposition (*habitus*), 67, 80–81, 132, 137,  
    163, 168, 169n, 180, 190, 308–9  
divine ideas, 69, 81n  
Dominicans, 89, 231  
double vision, 71, 183, 185, 187  
Douie, Decima, 19n  
dreams, 178, 228, 232, 292, 298  
dualism (property), 45  
Durand of St. Pourçain, 17–18, 23, 78–79,  
    239  
  
eclipse, 113–16  
elements (four), place in cognition of, 47n  
empiricists, British, 1  
enjoyment, 281  
  
epistemology, 2, 4, 12, 164; place in medi-  
    eval philosophy of, 6–7, 8–9. *See also*  
    knowledge; skepticism  
essence: cognition through, 17, 70, 107,  
    170, 173, 182, 199, 265; knowledge of,  
    38, 204, 212, 222–23, 228, 268, 302, 309  
estimative power, 53–54  
Eucharist, 230  
experience (phenomenal), 122–23, 149–  
    50, 244; infallibility of, 233  
extension, virtual, *see* attention, virtual  
externalism (content), 192  
externalism (epistemic), 227, 229  
external world, *see* objects (real and  
    external)  
extromission (perceptual), 169–70, 172,  
    173n  
eye (role in vision of), 17, 34, 41, 43–44,  
    102–3, 122, 127, 177–78, 183–84, 185,  
    190, 207, 254  
  
falsity, *see* truth  
*ficta*, 80–85, 103, 105, 255, 278–85, 288–89  
Fitzpatrick, Noel, 283n  
focus, *see* attention  
folk psychology, 50  
form: and appetite, 58; as causal agent,  
    32–34, 49, 88, 304–5; and intentional  
    existence, 39–40, 47, 50, 63; and mate-  
    riality, 36, 45; role in cognition of, 13–  
    14, 32–36, 52, 87–89, 109, 113, 129,  
    304–5; substantial, 13. *See also* identity,  
    formal; likeness, as formal agreement;  
    species, as form  
foundationalism, 7  
Franciscans, 2, 19–20, 21, 23–25, 146–47  
Freddoso, Alfred, 23n, 24n, 164n  
free will, 157–58  
function, representation in terms of, 110–  
    11  
  
Gál, Gedeon, 80n, 82n, 278n, 283n, 284  
Garceau, Benoit, 141n  
Gauthier, René-A., 15n, 37n  
Geach, Peter, 299  
Gerard of Bologna, 23  
Gieben, S., 20n  
Giles of Rome, 147  
Gilson, Étienne, 17n, 23, 71n, 147n, 216n,  
    295, 298–99

## Index

- God, 13, 166, 177; attributes of, 51, 172; as deceiver, 233–36, 253, 292; essence of, 70; as exemplar of truth, 228; as infinite, 55; intervening in cognitive process, 73, 117–19, 230, 233; as a knower, 31, 51–52, 54, 58, 61, 107, 112, 115; as simple, 70; as spiritual, 64–65; vision of, 92. *See also* divine ideas; knowledge, about God
- Goddu, André, 164n
- Godfrey of Fontaines, 147
- goodness, 143
- Gregory of Rimini, 2
- habit, *see* disposition
- Haldane, John, 35n, 42n, 63, 121n, 196
- hallucination, 167, 214, 230, 262, 282–83
- Hause, Jeffrey, 142n
- Hayen, André, 42n, 53n, 135n, 139n, 142n, 176n
- Hedwig, Klaus, 35n
- Henry of Ghent, 2, 8, 11, 15n, 25, 92, 141n, 147, 203, 231, 238, 240, 243; career of, 221–22; and mental word, 262–65, 270n, 275, 279, 280, 286, 307, 309; and parsimony, 307; and rejection of intelligible species, 21, 262, 306–10; and skepticism, 221–229, 232, 234, 235–36, 249, 292, 301
- Henry of Harclay, 69–70, 80
- here and now (*hic et nunc*), 115–16, 119–20. *See also* individuals, cognition of
- Hervaeus Natalis, 70n, 79n
- Hoffman, Paul, 42n, 44–45, 46n, 47n, 48n, 176n
- Hoffmann, Fritz, 89n
- Hume, David, 5, 8
- Hyman, Arthur, 19n, 25n
- idealism, *see* representationalism, idealist
- ideas (Lockean), 5, 15, 167, 196, 293, 298
- identity, formal, 87–89, 109–113, 268, 295–305; and causality, 304–5; as distinct from identity of actions, 296–97; as identity of species, 297; responsible for intentional content, 299, 303
- illness, mental, 214, 232, 292
- illumination, divine, 157, 222, 228, 236, 272
- illusion, 4, 22, 71–75, 228–29, 232, 260, 262, 280–83, 285, 288, 292; argument from, 167, 182–189, 232
- imagination, 13, 22, 133, 151, 163, 168, 203–5, 285, 288; as forming images, 127–28, 144, 255–56, 259–62
- immaterial existence (alteration, reception), 37–47, 52, 63–64, 76–77, 79, 161, 176n
- immateriality. *See* cognition, immateriality of; intellect, immateriality of
- immediacy, criteria for, 199–200, 213, 240–44, 248. *See also* cognition, immediacy of
- inclination, *see* appetite
- individuals, cognition of, 53–54, 99, 113–16, 119–21, 152–53, 251–52, 275, 286–88
- individuation, 114
- induction, 252
- infallibility, 229–30
- inference, 17, 151, 205, 215, 250–53, 291–92
- information, acquisition of, 4, 12, 16, 18, 51–52, 55
- instinct, 54
- intellect, 3, 13, 52; agent, 13, 20, 25, 128–29, 132n, 156–57, 176–77, 306–8; causal connections with body, 176–78, 181; as divine likeness, 9; immateriality of, 43, 44–45, 52, 55–56, 64, 128, 150, 176–77, 254; objective existence within, 70, 71, 73n, 79n, 80–85, 277–80; possible, 13, 20, 25, 176–77, 212, 256, 295, 306–8; representations within, 81, 91, 101–2, 110–11, 264–65, 309–10
- intellective cognition (*intelligere*), 12–13, 16, 52, 54, 55–56, 99, 254, 279–80, 303, 306–9; and passivity, 126, 128–30, 132n, 134–36, 144, 146–58, 256, 307–8; relative to sensation, 99, 145, 171–72, 254, 266, 269; and understanding, 257n. *See also* word, mental
- intelligible existence, 70
- intention (*intentio*), 135, 137n, 259, 271, 286
- intentional existence, 14, 33–47, 48–51, 55, 63–67, 77, 80–83, 108–9, 127, 133,

## Index

- 145, 161, 170, 248, 275–76, 280, 293, 297; as nonreal, 64–65, 68, 69, 71–78, 84–85, 187–88, 276, 278, 281–82, 289
- intentionality (in modern sense), 2, 4, 8, 24, 31, 35, 36, 63–64
- internalism (epistemic), 7, 234
- internalism (content), 115–16, 118–21, 192
- introspection, 54, 141, 175–76, 205–7, 217n, 269, 303. *See also* knowledge, of self
- intuitive cognition, 24, 162–63, 165, 167, 168, 185, 189
- ISI existence. *See* intentional existence; spiritual existence; immaterial existence
- Jackson, Frank, 15, 183n, 242n
- Jacob de Asculo, 71n, 81n
- Jakob of Metz, 79n
- Jansen, Bernard, 20n, 131n, 174, 178n
- John, Gospel of, 255, 271
- John Duns Scotus, 2, 11, 12n, 24, 25, 69–70, 80, 92, 221, 306n
- John of Mirecourt, 23
- John Peckham, 11
- John of Reading, 166n, 306n
- Jolivet, Jean, 11n
- judgment, 210, 216–219; sensory, 129, 138–42, 203
- justification (epistemic), 6, 226, 234
- Kant, Immanuel, 269
- Kelley, Francis, 24n
- Kennedy, Leonard, 235n
- Kenny, Anthony, 42n, 136n, 154n, 196, 230n, 297
- Klima, Gyula, 76n, 264n, 286n
- knowledge: abstract, 255, 256, 262, 267–68, 270, 275, 277, 283, 286, 289; by acquaintance, 223; connected with world, 209–10, 219, 220–21, 236, 244–46, 286, 288–89, 292, 295, 298, 304–5; definitions of, 6–7, 223, 227; demonstrative, 6, 7, 234; as distinct from cognition, 12, 50; extent of, 4, 11, 222, 229; about God, 8–9, 199, 235; propositional, 252, 255, 263–64, 275, 280, 286–89, 307; of self, 86–87, 140–42, 198, 204, 216–17, 289 (*see also* introspection); terminology for, 230. *See also* cognition; epistemology; skepticism
- Koch, Josef, 20n
- Kraus, Johannes, 89n
- Kretzmann, Norman, 13n, 115n, 299–300
- Kuksewicz, Z., 11n
- language: as analogue for mental representation, 102, 103–4; mental concepts as likeness of, 99–100. *See also* ordinary language
- light, 7, 15n, 69, 78, 96, 175, 188–89, 215
- likeness: act itself as, 25–26, 92, 105, 121–24, 285; cognition without, 101–5; at conceptual level, 93, 98–100, 102, 103–5; *fictum* as, 279; as formal agreement, 40, 87–89, 106, 109, 111, 299, 302–5 (*see also* identity, formal); of matter, 114–16, 120; natural, 66, 90, 93–94, 99–100, 101, 103–4, 106–12, 113; not sufficient for cognition, 117; representational, 94, 106–12; responsible for cognition, 86–100, 105, 182n, 199; species as, 16, 26, 41, 65–67, 87, 95–97, 161, 195, 200–1, 202, 293, 302
- Lindberg, David, 15n, 169n
- Locke, John, 4–5, 8, 15, 244, 293
- logic, place of in medieval philosophy, 6–7
- Loneragan, Bernard, 136n, 256n, 296
- Long, A. A., 125n
- Loux, Michael, 24n
- MacDonald, Scott, 6n, 12n, 122n, 208n
- McGrade, A. S., 119n
- Mackie, J.L., 5
- magnets, 164
- Maier, Anneliese, 23n, 25n, 79n, 164n, 189n, 235n
- Marenbon, John, 101n
- Maritain, Jacques, 256n
- Marras, Ausonio, 35n, 111n, 196n
- Marrone, Steven, 221n
- material existence, *see* natural existence
- materialism: and intentional–natural distinction, 37–38, 41; meaning of, in Scholastic context, 35–36; in Ockham,

## Index

- materialism (*cont.*)  
61–62; regarding sensation, 35–37, 42–47, 68, 69, 176, 193; rejected in intellect's case, 55–56, 64, 85
- matter, 13, 36; determinate (*signata*), 114–16; as principle of individuation, 116
- Matthew of Aquasparta, 11, 147
- Maurer, Armand, 79n
- medieval philosophy: and authority, 130, 150, 156–57, 169; decline of, 23; ignorance about, 4–5, 290–91, 293–94; originality of, 5, 290, 293–94; relevance today of, 1–3, 7–8, 290–94; and scholastic method, 8; scientific limitations of, 7–8, 175
- Meissner, William, 256n
- memory, 13, 21, 22, 120, 133, 134, 140, 153, 163, 168, 184, 204–5, 251–52, 256, 274, 308. *See also* species, in memory
- metaphor, importance of in philosophy of mind, 197, 208, 294
- methodological solipsism, 120, 121n
- Michalski, Konstanty, 71n
- Michaud-Quantin, Pierre, 46n
- mirror: images, 71, 73, 185, 186–87, 215; as metaphor for mind, 5, 125, 271–73, 293
- modern philosophy, *see* seventeenth-century philosophy
- Moody, E. A., 24n, 101n
- Moore, Henry, 112–13
- naive theory of species, 3, 17, 109, 195–97, 238, 245, 291
- natural existence (alteration, reception), 14, 33–47, 48–49, 64–68, 297
- neuroscience, 7–8, 290n–91n
- Nicholas of Autrecourt, 235n
- nominalism, *see* William Ockham, and nominalism
- noncontradiction, principle of, 210, 233
- nonreal existence, *see* intentional existence, as nonreal
- Normore, Calvin, 119n
- Nuchelmans, Gabriel, 280n
- Nussbaum, Martha, 42n
- Nys, Theophiel, 306n
- object, proper, 226–27
- objective existence (*esse obiectivum*), 70–72, 79–81, 83, 84, 255, 278–79, 280, 282–84
- objects (nonreal): associated with inner, mental objects, 84, 276, 278; less subject to Ockham's razor, 83; needed even in veridical cases, 74; needed to explain illusions, 73–74, 187, 280–83; outside the mind, 72–75, 80. *See also* species, as object of cognition
- objects (real and external), 2, 3, 75, 123; causal role of, 127–28, 135–38, 143–45, 147–48, 150–51, 153, 161–65, 168–72, 175–78, 187, 191; linked by species, 14–15, 161–62, 195; as objects of cognition, 6, 11, 15–16, 21, 80, 181, 182, 186–87, 198–200, 202–3, 209–10, 213–19, 220–24, 232, 245–46, 257–58, 264–65, 266–68, 270, 286–89, 295, 301–3. *See also* cognition, requires object; knowledge, connected with world
- ordinary language, 214, 216–17, 242n
- Owens, Joseph, 196, 293
- Oxford University, 23
- Pacetti, Dionysius, 20n
- Panaccio, Claude, 256n, 270n
- parsimony, 26, 81, 83, 154, 166, 189–94, 247, 255, 283–84, 289, 307
- Partee, Carter, 19n, 20n, 131n
- particulars, *see* individuals
- Pasnau, Robert, 7n, 20n, 25n, 157n, 223n, 272n
- passivity (cognitive), 3, 11, 21, 24, 59, 106, 125–38, 143–50, 155–57, 161, 178–79, 207, 293. *See also* intellectual cognition, and passivity; sensation, passivity of; will, passivity of
- Paul, St., 9
- Peirce, C.S., 90, 102
- perception: in noncognitive sense, 51, 225 (*see also* apprehension, in noncognitive sense; turning toward, in noncognitive sense); second-order, 140–41. *See also* cognition; illusions; sensation; sense
- Perler, Dominik, 70n
- perspective, theories of, 96

## Index

- Peter Aureol, 11, 65, 69–76, 78–79, 80–82, 84, 187, 248–49, 260, 280–82
- Peter John Olivi, 2, 4, 5, 19–23, 77, 92, 109, 288; and act theory, 21–23, 121–24, 161, 221, 265, 275–76; and attention, *see* attention, in Olivi; career of, 19; and causal accounts of representation, 102, 119–21; condemnation of, 19–20, 21, 25, 148, 291; critic of standard cognitive theory, 3, 11, 16–17, 74, 131–34, 161, 169, 176–78, 182, 249, 290–91; and direct realism, 21–23, 178–81; and illusions, 183–85; and immateriality of cognition, 176–77; and intentional existence, 67–69; later influence of, 24–25, 148, 291; and mental word, 254, 265, 271–77, 286; as opponent of non-Christian philosophy, 10–11, 20, 130, 169, 177n; and parsimony, 189; and passivity (cognitive), 125–26, 130–34, 138, 146–50, 155–57, 178–79; rejection of species, 157, 161–62, 170, 182, 194, 196–97, 199–200, 220, 236, 254, 293, 306, 309–10; and skepticism, 4, 22, 221, 236–47, 275, 291–93; and species *in medio*, 168–69, 177, 184; and virtual attention, *see* attention, virtual
- Peter of Mantua, 7n
- phantasia, *see* imagination
- phantasms, 128–29, 136, 147, 202, 271, 272, 306–9
- phenomenological qualities, 95, 123, 184
- philosophy: as science, 6; value of the history of, 3, 6, 294
- physicalist theories, *see* materialism
- pinhole images, 164
- plants, as noncognitive, 52
- Plato, 1, 5, 6, 127
- Platonism, 255, 266–67, 270, 276
- potentiality (use-determination distinction), 142–46
- Price, H.H., 5n
- propositions, 83–84, 255, 262–64, 274–76, 279–81, 283, 285–89, 307
- pupil, *see* eye
- Putallaz, François-Xavier, 87n, 204n–5n
- Putnam, Hilary, 42n, 111n, 120, 290n
- quality, 25, 66, 77, 84–85, 192, 278; as alternative to species, 186; likeness involving, 90, 92–95, 98–100; primary–secondary distinction, 122–23, 247
- quantity, 25, 192
- quiddity, *see* essence
- razor, Ockham's, *see* William Ockham, and parsimony
- Read, Stephen, 70n
- real existence, *see* intentional existence, as nonreal
- realism, 276, 280, 290n. *See also* direct realism; representationalism, realist
- reality, *see* objects (real and external)
- reductive materialism, 62
- reflection, on oneself, *see* knowledge, of self
- regress, arguments based on, 155–56, 248–49, 285
- Reid, Thomas, 5–6, 291
- reification: of experiences, 123; of species, 193, 202
- relation, 192
- relativism, 209, 219
- reliabilism, 7
- reliability: of intellect, 227; of senses, 221, 226–27
- representations, mental, 2–5, 8, 11, 264–65, 273, 286, 293–94; terminological implication of, 16–18, 195. *See also* species, as representation
- representationalism, 15, 96–97, 179–80, 183n, 195, 197, 199–203, 206, 209–14, 218–19, 220, 222, 231–32, 235, 236, 244–45, 247–48, 290, 299–303; idealist (Rep.), 209–12, 214, 219, 266, 270, 298–99; realist (Rep.), 210–12, 214, 219, 270
- resemblance, *see* likeness
- retina, 7
- Richard Rufus of Cornwall, 77n
- Robert Holcot, 91, 94, 101
- Roger Bacon, 10, 12, 15n, 64–66, 101, 109, 188, 239n
- Roger Marston, 11, 147
- Rohmer, J., 147n
- Rorty, Richard, 4–5, 290n, 293–94
- Ross, James, 56n
- Schepers, Heinrich, 89n, 91



## Index

- Schmidt, Robert, 137n  
Scholastic philosophy, *see* medieval philosophy  
Schuurman, Henry, 24n  
science, medieval, 7–8, 164, 291  
Sedley, D. N., 125n  
seeing as, 145. *See also* intellectual cognition, relative to sensation  
semantics, 256, 264n  
semimaterialism, 36–37, 56, 62  
sensation, 12–13, 52–53, 56, 99; does not need to form images, 259–63; passivity of, 59–60, 126–30, 133–38, 141n, 144–46, 150–51, 261–62, 269; and perception, 60, 138–42, 180. *See also* intellectual cognition, relative to sensation; materialism regarding sensation  
sense: agent, 127, 176; common, *see* common sense; external, 12, 52–53, 127, 185, 256; internal, 12, 52–54, 127–28, 184, 256; organs of, 12–13, 40–41, 43–45, 63, 140, 177–78; receptive of species without matter, 44, 52, 63–64, 66–67  
sense-data, 5n, 167, 182, 183n, 186n, 196, 233  
seventeenth-century philosophy, 1, 181; originality of, 4–6, 120–21, 290–91, 293–94; preoccupation with skepticism, 4, 7, 293, 298, 305  
shape, representations of, 16, 110  
Shoemaker, Sydney, 239n  
sign: iconic, 90, 92, 102–5, 108–9; indexical, 102; natural, 104; species as, 101, 207, 239; symbolic, 102  
Sismondo, Sergio, 172n  
skepticism, 222–46, 255; Academic, 9; and act theory, 4, 26, 166, 291–93; and formal identity, 295–96, 298–301, 303–5; place of in medieval philosophy, 4, 7, 222, 229, 235  
Solère, J. L., 196n  
sophisticated theory of species, 3, 16–17, 109, 195–97, 202, 208–9, 213, 218–219, 238  
Sorabji, Richard, 11n, 42n, 48n, 63n  
soul, 13, 16, 60, 69, 181, 193; division of into powers, 25, 172n; as locus of intentional existence, 78–79; not the subject of sensible species, 46; as reflection of the divine, 9; separated, 172n; as spiritual, 64. *See also* intellect  
Spade, Paul Vincent, 192n  
species: as causal intermediaries, 163, 198, 201, 208, 211–12, 220, 224–25, 238, 247, 291, 300; deception regarding, 232–33; as form, 32, 45, 88, 113, 191, 193, 201, 238; as identical with object, 87–88, 297–98; intelligible, 14, 25, 38, 70, 75, 80, 97, 107, 109n, 126, 136, 147–49, 161, 165, 169n, 182n, 190–94, 198, 202, 204, 209, 211–12, 219, 224, 228, 255, 256, 258, 270, 291n, 302, 306–10; lack of evidence for, 166–67, 247; as Latin term, 14; as likeness, *see* likeness, species as; *in medio*, 14–15, 25, 39, 41, 42–43, 47–48, 64–65, 76, 78–79, 127, 161, 164–66, 168–69, 176, 177, 183, 190–93, 247–48, 291; in memory, 21, 168, 169n, 190, 271, 273–75; as object of cognition, 15–18, 96–97, 178–81, 183, 185, 194, 195–97, 200–1, 203–12, 214, 218, 220–21, 225, 230–31, 235, 236–45, 247–51, 291, 293, 300–3; reception of, 14–16, 32–42, 49, 63, 105, 145, 161, 191–92, 208, 305; rejection of, 21–23, 25–27, 68–69, 76–77, 157, 161–67, 170, 193–94, 229, 236, 254, 291, 293, 306–10; as representation, 14–18, 195, 237–39, 243, 249–50, 262, 300, 304, 308–9; sensible, 14–15, 25, 39, 41, 45, 64–65, 75, 78–79, 107, 126–28, 161, 165, 183, 190–94, 203–6, 211, 219, 224, 233, 259, 261, 263, 265, 270, 291n, 309; simplicity of, 69. *See also* sign, species as; veil, species as  
Spiegelberg, Herbert, 35n  
spirit, as subtle body, 46–47  
spiritual attention, *see* attention, virtual  
spiritual existence (alteration, reception), 14, 36–47, 49, 64–65, 67–69, 76–77, 161, 176n  
Spiritual movement, Franciscan, 20  
Spruit, Leen, 12n, 291n, 306n  
states of affairs, 264; *see also* propositions  
stick: bent in water, 71, 187; circular movement of, 72–75, 184–85, 187  
Stoics, 125–26, 129–30, 134

## Index

- Stump, Eleonore, 115n, 145n  
Suarez, Francisco, 164n  
subjective existence, 70, 79–81, 84, 103, 278–79, 284  
substance, 25, 67, 192, 263–64  
sun, rays from, 164  
supervenience, 62  
syllogisms, 6, 83–84
- Tabarroni, Andrea, 105n, 250n  
Tachau, Katherine, 12n, 23n, 24n, 25n, 73n, 79n, 89n, 163n, 164n, 169n, 220, 283n, 291n, 306n  
terminus, external object as, 119–20, 148, 150, 171  
terms, vocal and written, *see* language  
Themistius, 12  
theology: knowledge concerning, 6; importance in medieval era, 8–9; relationship to cognitive theory, 9, 255; relationship to epistemology, 8–9, 222; as science, 6  
Thomas Aquinas, 2–5, 11–18, 75n, 84n, 92, 101, 130, 169, 171, 222, 293–94; and act–object doctrine, 26, 197, 200–14, 218–219, 259, 265, 293; and apprehension–judgment distinction, 138–42; and Aristotle, 10–11; and attention, *see* attention in Aquinas; and causal accounts of representation, 102, 113–17, 119, 120–21; and corporeal–incorporeal gap, 176, 306–7; and criterion for cognition, 13–14, 31–35, 47–57, 145–46; and direct realism, 3, 15–16, 219, 299–303; and extromission, 169n; and illusions, 182–83; 260–61; and intentional existence, 37–42, 63–69, 76–79, 193, 248, 280; later criticisms of, 19, 25, 231; and likeness theory, 86–89, 106–13, 200–1; and materialism, 35–37, 42–47, 62; and mental word, 256–72, 273–74, 276, 277, 278–79, 280, 286; official position of, 197–201, 208, 209, 218, 224; and parsimony, 191–94; and passivity, 125–30, 131–32, 134–38, 143–46, 207; and philosophy, 10–11; and potentiality distinction, 142–46; and representationalism, 15–16, 197, 199–203, 206, 209–14, 218–19, 220, 231, 238, 240, 243–44, 299–303; and sensory–intellective distinction, 99, 172; and skepticism, 220–21, 225, 229, 295–96, 298–301, 303–5; and species, 162, 163–64, 181–83, 195–96, 254, 306–7; and use of ‘virtual,’ 172  
Thomas of Sutton, 147  
Tooley, Michael, 217n  
Torrell, Jean-Pierre, 19n, 69n, 131n  
translations: medieval, 10; modern, 1  
Trinity, 9, 250, 255, 277  
truth: at sensory level, 139; *see also* veridicality  
turning toward (*conversio*), 135–36, 205–8, 218; as noncognitive, 207–8  
Tweeddale, Martin, 42n, 48n, 50n, 109, 121n
- universals, 13, 16, 52–54, 56, 80n, 99, 102, 103–5, 116, 129, 152–53, 231n, 251–52, 255–56, 260, 262, 264, 266, 268, 270, 275–76, 279–83, 285, 287, 306–8  
University of Paris, 10, 19, 221
- veil, species as, 4–5, 245–46, 293, 298  
Verbeke, Gerard, 129n  
veridicality (sensory), 139  
vestige, 250–51  
*via colligantiae*, 177–78  
virtual attention, *see* attention, virtual
- Walsh, James, 19n, 25n  
Walter Chatton, 2, 11, 82n, 283, 288  
Warnock, G. J., 224n  
water: and criterion for cognition, 49–52, 56, 60, 146; tasting through, 217–18  
Wéber, Édouard-Henri, 196n  
Weinberg, Julius, 73n  
Weisheipl, James, 19n, 131n, 272n  
will: directing other powers, 137–38, 143–44, 147, 152–56; passivity of, 157–58  
William of Alnwick, 71n  
William of Auvergne, 12, 101–4, 108, 109  
William Crathorn, 2, 11, 48n, 66–67, 131, 139, 164n, 180n, 210, 238, 240, 243, 253; career of, 89; and mental representation, 89–101, 104, 108–9, 232, 282; and skepticism, 9, 221, 229–36, 292

## Index

- William Heytesbury, 7n
- William of Moerbeke, 295n
- William Ockham, 2, 4, 12n, 23–27, 46, 48, 54n, 66–67, 70, 109; and action at a distance, 25–26, 162–67, 189, 190, 192; and act theory, 25–27, 161, 164, 221, 255, 264, 278, 282, 283–85, 288–89; antireductionist account of cognition, 61–62; and Aquinas’s criterion for cognition, 31–34, 47, 60, career of, 23–24; and causal accounts of representation, 102, 116–19, 120–21; censure of, 24, 291; critic of standard cognitive theory, 3, 11, 16–17, 25–27, 74, 161, 182, 236, 249, 290–91; and *ficta*, 80–85, 103, 105, 255, 278–85, 288–89; and illusions, 185–89, 260, 280–83, 285, 288, 292; and intentional existence, 65, 76–85, 247; and likeness in cognition, 103–5, 116–17, 121–24, 279, 285; and mental word, 254–55, 276–77; and nominalism, 276, 280, 283, 286–87; and parsimony, 26, 81, 83, 154, 166, 189–94, 247, 283–84, 289, 307; and passivity (cognitive), 125–26, 146–47, 149–58; political writings, 23–24; and propositions, 279–81, 283, 285–89; and rejection of species, 25–27, 161–67, 169n, 177, 185, 189–90, 193–94, 196–97, 199, 220, 247–53, 254, 293, 306, 309–10; and skepticism, 4, 23, 166, 284, 291–92
- Wippel, John, 19n
- Wittgenstein, Ludwig, 111
- Wolter, Allan, 147n
- Wood, Rega, 77n
- word, mental (*verbum*), 90, 92, 98–99, 254; as analogous to Divine Word, 255, 272, 277; compared to species, 255, 256, 258, 269, 276; as intermediary, 5, 269–70, 275–76; as object, 256–59, 265, 268–70, 271–76, 303; required for understanding, 257, 259–65, 270–71, 307, 309. *See also* concept
- word, spoken, 286–87
- Wyclif, John, 230n