Introduction

In his *Meditations*, Descartes set out to demolish, once in his life, everything he had learned, and to subject all of his previously acquired beliefs to an increasingly challenging series of sceptical arguments. The goal of this project, Descartes confided to Mersenne in a 1641 letter, was to ‘destroy’ the foundations of Aristotelian natural philosophy, and to pave the way for a new physics (AT III 297–8, CSMK 173).1 Famously, this new physics dismissed the scholastics’ analyses of bodies in terms of matter and form, aiming to replace their hylomorphic language for a vocabulary of matter in motion that was at the same time plainer, and more exact.

But Descartes’ s parting of ways with Aristotelian tradition here raises fundamental questions about his account of cognition and representation too. For traditionally, scholastic cognitive psychology had been firmly rooted in Aristotelian ontology. According to Thomas Aquinas, for example, for me to perceive a red object was for my eye to take over the form that gives the object its colour. Generally speaking, all cognition consisted in the assimilation of subject and object of cognition, the former taking over the latter’s form. But once the Aristotelian ontology of forms came under attack in the seventeenth century, it became necessary for philosophers such as Descartes to rethink this account of cognition. As one scholar has put it, the origins of early modern cognitive theory ‘lie in Descartes’s rejection of the Aristotelian-Scholastic ontology and its accompanying account of human cognition’.2

But if the foundations under Aristotelian theories of cognition had fallen into disrepute, what did Descartes put in their place? Ever since the seventeenth century, Descartes’s readers have struggled with this question, but one influential answer has it that, in the *Meditations*, Descartes put forth a specific variety of representationalism or indirect realism.3 According to

1 See Garber, ‘Semel in Vita’, for discussion.
2 Dickerson, *Kant on Representation*, 5.
3 See, for example, Secada, *Cartesian Metaphysics*, 83–91; and Newman, ‘Ideas and Perception’.

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that theory, the cognition of any thing involves at least three entities: an act of cognition, an inner representation or ‘idea’ and finally an external object. In this scheme, the inner representation is the immediate or direct object of cognition. The external object, by contrast, is cognized mediately or indirectly.

Whether or not this answer succeeds in doing justice to Descartes’s texts is a question that I will come back to in Chapter 4 below. For now, the crucial point is that, in the eyes of many of Descartes’s contemporaries, Cartesian representationalism opened up a cleavage between inner and outer world. The outer realm is crowded by trees, horses and men, the inner by representations of trees, horses and men. And with the gap between mind and world that so opened up, arose the challenge for Descartes and his followers to explain how it is that we have access to the world at all. The Scottish philosopher Thomas Reid in the eighteenth century did not see that such an explanation was forthcoming from within the theory of ideas. As he gloomily put it in one famous passage:

The theory of ideas, like the Trojan horse, had a specious appearance both of innocence and beauty; but if those philosophers had known that it carried in its belly death and destruction to all science and common sense, they would not have broken down their walls to give it admittance.  

Two centuries later, Richard Rorty maintained that the Cartesian mind was shut off from direct access to the world by a ‘veil of ideas’. And according to Hilary Putnam,

our difficulty in seeing how our minds can be in genuine contact with the ‘external’ world is, in large part, the product of a disastrous idea that has haunted Western philosophy since the seventeenth century, the idea that perception involves an interface between the mind and the ‘external’ objects we perceive.  

To be sure, these statements may require shading. Philosophers have pointed out that representationalism may not be all that ‘disastrous’, and Reid certainly was not the most charitable reader of Descartes. Even so, when Descartes wrote that ‘the mind, when it understands, in some way turns to itself, and inspects one of the ideas which are in it’ (AT VII 72,
CSM II 51), many of his contemporaries, for better or for worse, read him as a representationalist. And consequently the seventeenth century witnessed an intense debate over the directness of cognition and the question of whether or not Cartesian ideas would afford genuine knowledge and certainty.

Traditional historiography from Reid to Rorty has cast controversy over indirect cognition and scepticism as a distinctively modern phenomenon. Descartes’s gap between the inner and the outer would have been alien to medieval cognitive psychology, and it has been claimed that, on the whole, ‘the Middle Ages show no significant interest in sceptical arguments’. Recent scholarship in medieval philosophy, however, has begun to acknowledge the vitality of sceptical arguments in medieval philosophical discourse. Indeed, we now know that, even if few thought of themselves as sceptics, medieval philosophers keenly discussed sceptical problems. And as Dominik Perler has shown, one of the main sources of sceptical questions and problems, interestingly, was a theory of representation.

One of the most prominent defenders of this theory was Aquinas. For Aquinas, all cognition consisted in the formal assimilation of subject and object of cognition. When an object’s form was taken over by the subject’s cognitive powers, he would refer to this form as a ‘species’, and it was in virtue of such species that external objects were represented to human cognizers. Thus presented, Aquinas’s theory of representation appears to leave little room for sceptical questions about the inner world and its relation to outer reality. Indeed, the picture we get is that the inner world is firmly glued to external reality by the existence of the same forms both in our senses and intellects on the one hand, and in the external world on the other.

Nevertheless, in the eyes of many thinkers in the late thirteenth and early fourteenth centuries, species were not the harmless entities they might seem to be. In the eyes of thinkers such as Peter John Olivi, William of Ockham and Peter Auriol, indeed, species were inner objects of cognition that veiled external reality, jeopardizing the directness and adequacy of our grasp of the world. As a result, the late thirteenth and early fourteenth centuries saw a number of controversies over the virtues and vices.

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8 Floridi, Sextus, 16.
9 See Grellard, ‘Esquisse’; and Grellard, Croire et savoir. Also Lagerlund, History of Skepticism; Perler, Zweifel und Gewissheit; and Demery, Ghosh and Zeeman, Uncertain Knowledge.
10 Perler, Zweifel und Gewissheit, 25–6. See also Pasnau, Théorie.
11 On this point, Perler, ‘Wie ist ein globaler Zweifel möglich’. Also Haldane, ‘Reid and History’.
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of indirect realism, and over the question of what inner representations can teach us about outer reality.

Both the seventeenth and the late thirteenth, early fourteenth centuries thus saw critical reactions to what were seen as representationalist accounts of cognition. In both periods, it was argued that indirect realism was detrimental to knowledge about the external world. And this raises the question of how the critical receptions of indirect realism from both periods compare. Did the medieval critics of species see the same problems as later philosophers saw for ideas? Scholars have occasionally drawn parallels between discussions of representation and cognition from both periods. Thus, in his classical study of scholastic critiques of species, Faustino Prezioso claimed that "in the medieval species, the prodromes of modern phenomenalism were latent", and Katherine Tachau has pointed out that late medieval critique of species is reminiscent of the criticism that was leveled against the early modern theory of ideas, or what came to be known as the new 'way of ideas'. Again, Emanuela Scribano has drawn attention to the medieval background of modern controversies about ideas, and according to Lili Alanen, Olivi's main argument against the species theory was "basically the same as the one raised against the so called veil-of-ideas theory, with which Descartes has been charged". Similarly, Perler has written that in the medieval critiques of species, we find just the sort of difficulty that 'the critics of the theory of ideas singled out as the main problem of representationalism'.

But these remarks and parallels all come from studies that either concentrate on late medieval, or on early modern cognitive theory and epistemology. Thus, Alanen's reference to Olivi aims to provide a background to Descartes's theory of mind and representation, and the comparative claims in Prezioso and Perler occur in their discussions of medieval psychology and epistemology. But in order to address head-on the question of whether or not the critical receptions of species and ideas were genuinely similar, a study needs to cast the net wider, and take into account seventeenth-century reactions to Descartes as well as late-medieval criticism of species. It needs to cross the boundaries of what have traditionally been two different areas of scholarship.

To be sure, these boundaries are growing more and more permeable, as scholars are becoming increasingly aware that early modern philosophy did

12 Prezioso, Prodromi, 6; and Tachau, Vision and Certitude, 44.
13 Scribano, 'Dilemmas of Representation'; and Alanen, Descartes's Concept of Mind, 133.
14 Perler, Zwei fel und Gewissheit, 49.
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not mark the radical break with late medieval thought that it has sometimes made out to do.15 But a study that looks at discussions of representation and indirect cognition from both periods with the aim of comparing the critical receptions of species and ideas and the argumentative strategies developed there, does not as yet exist. The goal of this study is to begin to fill that lacuna.

Below, I will outline some of the book’s main themes and theses. But before doing so, it will be instructive first to say something about its nature and approach to the history of philosophy. After all, there are many different kinds of tasks that historians of philosophy can undertake. First, they may try to track influence, asking whether and how a given philosopher was influenced by another. Second, they may trace the development of a given concept, asking how it emerged and how it was transformed throughout a certain period of time. Leen Spruit’s study on species and ideas is an example of a work that takes up the latter sort of task.16 Taking into account an impressive wealth of texts written between the twelfth and the seventeenth centuries, it seeks to delineate developments in philosophical thought on cognition and representation.

Third, one can take a more comparative approach, exploring the way in which philosophers from different eras explored a determinate terrain of philosophical inquiry. A useful example here is Claude Panaccio’s *Les mots, les concepts et les choses*, which as it were hosts a conversation between Ockham and twentieth-century analytic philosophers. In doing so, Panaccio’s aim is of course not to establish whether or not, say, Jerry Fodor was influenced by William of Ockham, but rather to outline the extent to which both thinkers were grappling with the same questions, providing similar solutions to similar problems. As Brian Copenhaver and Charles Schmitt describe this approach to the history of philosophy:

> Tracking influence is only one job for the history of philosophical ideas; another is to find patterns of conceptual similarity and difference that may have analytical use quite apart from any considerations of narrative or personality.17

It is this latter kind of project that will be undertaken here. Thus rather than offering a developmental story about how modern ideas on


16 See Spruit, *Species*.

representation grew out of second scholasticism and eventually trace back to medieval psychology, the principal aim here will be to offer a structural comparison of the arguments put forth in controversies about representation from two periods: the late thirteenth and early fourteenth centuries on the one hand, and the seventeenth century on the other. And it is only by zooming out somewhat from extensive contextualization and the very many historical dots and points that might be connected that this aim can be achieved. Without in any sense detracting from the importance of tracing lines of influence and contextualizing thinkers from the past, this study principally aims at comparing epistemological critiques of species and ideas.

Outline

The book consists of three parts. Part I will look at the critical reception of species, and it will start in Chapter 1 with a brief discussion of two important proponents of species: Thomas Aquinas and Henry of Ghent. These two philosophers held that our access to the world is mediated by species that represent external objects to us. But even though, as we will see, these thinkers were optimistic about the ability of species to give us knowledge, this optimism would soon disappear in the later discussions of their critics.

The next two chapters will turn to the three most important critics of species in the late thirteenth and early fourteenth centuries. Chapter 2 first turns to Olivi, who likely was the first to launch a fundamental attack on species in the late 1270s. And not only was Olivi among the earliest critics of species, but his criticism also stands out in the sheer quantity as well as quality of his arguments against indirect realism. Olivi’s contribution to the discussion about representation and the vices of representationalism makes him an obvious protagonist for any comparison between the late medieval and early modern receptions of species and ideas.

As his writings were condemned by the Franciscan order in 1282, no school of thought originated in Olivi. Even so, as we will see in Chapter 3,

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18 Henry’s account of the role of species developed over time. But throughout his career he remained committed to the idea that access to the world is mediated by forms. The modifications to the theory of species he proposed were local, and never questioned the framework as such. On this point, see Pasnau, *Theories*, 306–10. For detailed accounts of the development of Henry’s theory of cognition, see Nys, *De Psychologia* and more recently, Rombeiro, ‘Intelligible Species’.

19 On the dating of Olivi’s criticism of species, see Piron, ‘Parcours’, 146 and 183.
in Peter Auriol we find a criticism of species that is in many ways reminiscent of Olivi’s. Though mostly known to specialists nowadays, Auriol was an important figure in the philosophical landscape of the early fourteenth century. His views on cognition were discussed by such near contemporaries as Ockham and his secretary Adam Wodeham, and his writings later found their way to early modern authors such as Suárez and his readers. But although, as we will see, Auriol’s criticism of species already goes farther than Olivi’s had gone, it was in his slightly younger contemporary, William of Ockham, that we get the most radical rejection of inner objects of cognition. It is Ockham’s mature works on philosophical psychology, written in the 1320s, that mark the end point of the book’s first part.

To be sure, Olivi, Auriol and Ockham were by no means the only medieval philosophers to worry about species, and we will occasionally see parallels between their criticism and that of some of their lesser known contemporaries. Nevertheless, it is hard to find contemporaries whose engagement with species and the problems of indirect cognition can compete with that of these Franciscans in either size, or level of detail and sophistication. By focusing on their contributions to the debate, therefore, we are likely to get a fair profile of the kind of criticism that medieval philosophers leveled against species.

Moreover, by looking closely at these Franciscans, we will see clearly how the medieval criticism of species was far more than just a negative project. More precisely, what we will see is that the criticism of species, in these Franciscans, was a driving force behind important innovations in medieval psychology. For with their challenges to the species theory also came the task of developing a better alternative, and Olivi, Auriol and Ockham all agreed that this alternative had to allow for direct access to external objects. Where they disagreed, however, was on the scope of this direct realism. Whereas for Olivi, direct access was still the privilege of sense perception, Auriol and Ockham looked to take this initial realism about perception a step farther. Chapters 2 and 3 will trace this process, and chart the difficulties these philosophers encountered in their attempts to be direct realists across the board.

The starting point of Part II is Descartes’s theory of ideas as it was developed in and around his six Meditations. As we will see, although ideas as Descartes originally envisioned them may well have provided a direct

20 Prezioso describes Auriol’s criticism as a ‘development’ of Olivi’s. Prezioso, Prodromi, 81–4.
access to the world, the philosophy of ideas soon faced a plethora of questions about knowledge and direct access to the world. One of the first to raise this kind of question, was Descartes’s admirer, Nicolas Malebranche. In his *Search after Truth* of 1675, Malebranche argued that ideas should not be cast as inner objects of cognition, and to steer clear of the problems he saw for such an account of ideas, he transformed Descartes’s psychology almost beyond recognition. This transformation elicited a response from Antoine Arnauld, who feared that Malebranche’s account of ideas nourished rather than silenced the kind of scepticism it had aimed to destroy. The long debate over ideas that ensued was one of the major intellectual events in seventeenth-century France. It will be discussed in Chapter 4.

Chapter 5 introduces two epistemological problems that were raised for Cartesian ideas by the French admirer of Academic doubt, Simon Foucher. According to Richard Watson, Foucher was ‘important in the history of modern philosophy as a skeptic who originated epistemological criticisms that are fatal to the Cartesian way of ideas’.22 Inspiring philosophers as different as Jean Duhamel, Pierre Daniel Huet and Berkeley, Watson argues, it was Foucher’s criticism that would eventually lead to the ‘downfall of Cartesianism’. Given the importance of Foucher’s criticism, it is vital to see how it was taken up by the followers of Descartes. And the first to offer a detailed response to Foucher’s challenges on behalf of the Cartesians, was the Benedictine theologian Robert Desgabets. In Chapter 5, we will look closely at the way in which this thinker in a number of texts written mostly in the 1670s aimed to counter scepticism by combining a radical Cartesianism with scholastic strains of thought.

Chapter 6 will turn to John Sergeant. This Catholic philosopher devoted the harvest of his career to what arguably was the most extensive criticism of Cartesian ideas and indirect realism in English to see the light before Thomas Reid. The tenacity with which Sergeant attacked the way of ideas led the English Cartesian, Antoine Le Grand, to suggest that the initials I.S. with which Sergeant signed his books must surely identify him as the ‘ideistarum spretor’ or ‘scorner of the ideists’ of their time. As we will see, in a number of tracts from the 1690s, Sergeant argued that the only way to steer clear of scepticism, was to reject the philosophy of ideas entirely. To explain how it is that we come to perceive and understand the world, he proposed a return to what he found to be the rather more solid philosophy of Aristotle and Aquinas.

Throughout Part II, we will find that those grappling with the Cartesian legacy often developed varieties of direct realism not unlike those that were put forth by the earlier critics of species. But apart from this general congruity, another, and perhaps more surprising pattern will emerge as well. For as we will see, early modern philosophers often appealed to very specific medieval concepts and theories to address the problems surrounding ideas. Sergeant is an obvious case here, but Cartesians such as Malebranche and Desgabets will make grateful use of the heritage of medieval philosophy too. Thus Malebranche wedded a broadly Cartesian psychology to a theory of illumination inspired by Augustine, and Desgabets combined the philosophy of ideas with a medieval metaphysics of being going back to the late thirteenth century. As we will see throughout Part II, when philosophers appeal to tradition in this way to deal with the problems of ideas, this will typically involve a fair degree of hermeneutic flexibility, in which both Cartesian and medieval concepts receive new interpretations and functions.

So the discussion of the medieval and early modern receptions of species and ideas will reveal a sometimes surprising common ground. Not only did both periods see heated debates over the virtues and vices of indirect realism, but moreover, philosophers from both periods looked to direct realism for answers to the problems of representation, and early modern thinkers both in and outside Cartesian circles drew inspiration from specific medieval theories to deal with the problems surrounding ideas. And this makes it all the more important to get into sharp focus to what extent the problems that surrounded ideas were indeed the same as those that the earlier critics had seen for species. Drawing on the materials from the first two parts of the book, Part III will address that question.

More precisely, this Part will take a thematic approach, and look at the ways in which two major problems for indirect realism shaped both medieval and modern discussions of representation. Specifically, Chapter 7 will discuss what I will call representation problems for species and ideas, which raise the challenge that devices like these simply cannot do what surely was their most important job: representing external objects to us. To perceive a species or idea is to perceive a device internal to one's cognitive system, the criticism goes, but there is no compelling account of how these devices are about, and make us think of, external objects. As we will see, this was a line of criticism that we find in the critical reception of species and the controversies surrounding ideas alike. But at the same time, we will find that one of the most incisive and influential versions of this problem
to be launched against ideas did not have clear antecedents in the medieval reception of species.

Chapter 8 discusses the role played by criteriological problems in the criticism of species and ideas. These problems ask how, from behind the veil of representations, we can be sure that things really are the way we believe them to be. It will be argued that, although this kind of problematic recurs in authors from Ockham to Sergeant, it played a more visible role in the later critiques of Cartesianism than it did in the medieval attacks on species. Whereas authors such as Foucher attached considerable weight to criteriological queries in their critiques of ideas, they appear to have played a relatively minor role in the medieval debate on species. In Chapter 8, I offer a tentative explanation of this difference, and point out that it goes to qualify the extent to which medieval philosophers were struggling with the same problems as Descartes’s later readers. Though both often appealed to direct realism, they did not always do this in response to the same difficulties.