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The Representation of Hercules
Ockham's Critique of Species

A defining feature of our acts of thought and perception, is their object-directedness. Thought is never just thought, and perceptions are never just perceptions: instead, thoughts have objects that they are about, and acts of perception are directed at things in external reality that they make us conscious of. One way of thinking about this, is to say that perception and thought are essentially mechanisms that we have at our disposal to represent the world we live in. In seeing or thinking about an object or a state of affairs, we represent it, and this is what gives these acts of cognition their characteristic intentionality.

To be sure, saying that perception and thought are means to represent the world raises the question of just how this works, and this was a question hotly discussed by scholastic philosophers in the late thirteenth and early fourteenth centuries. Building on Aristotle's idea that all cognition involves the assimilation of subject to object of cognition, many thinkers adhered to some version of the so-called theory of species. Roughly, this is the theory according to which perception and thought result when our cognitive powers are informed by species: representational devices that function as similitudes or resemblances of external objects, and which thus contribute to the assimilation of a cognizing subject to the entity that he perceives or thinks about.[1]

But in spite of its respectable Aristotelian ancestry and its detailed development by such philosophers as Roger Bacon and Thomas Aquinas, the theory of species also met with extensive critique from Franciscan philosophers such as Peter Olivi (1248-1298), Peter Auriol (1280-1322), and William of Ockham (1288-1347). These thinkers were worried about the precise role that the species or similitudes of their opponents were supposed to play in the process of representing reality. Olivi and Auriol, for example, took the theory of species to say that seeing or thinking of a tree involves both an act of perception or thought, and a species representative of the tree. And this made them wonder how the act and the species were supposed to relate. In particular, they feared that the species would become inner objects of our thoughts and perception, thus blocking direct access to external reality.[2] To avoid this consequence, they argued that external objects were represented to us, not by means of special devices such as species, but by means of our very acts of perception and thought themselves. For the cognitive representation of the tree in front of me, they argued,

[1] On Aquinas's version of this theory, see D. Perler, *Theorien der Intentionalität im Mittelalter*, Vittorio Klöstermann, Frankfurt am Main 2004, pp. 31-106. For a general historical overview, see L. Spruit, *Species Sensibilis. Volume 1: Classical Roots and Medieval Discussions*, Brill, Leiden 1994.

[2] On this critique in Olivi, see R. Pasnau, *Theories of Cognition in the Later Middle Ages,* Cambridge University Press, Cambridge 1997, pp. 236-47. For a comparison of Olivi and Auriol, see H.T. Adriaenssen, *Peter John Olivi and Peter Auriol on Conceptual Thought*, 'Oxford Studies in Medieval Philosophy', 2, 2014, pp. 67-97.

nothing more was needed than an act of perception or thought that was internally structured in such a way as to pertain to the tree rather than anything else.[3]

Like Olivi and Auriol, Ockham believed that according to the theory of species, all cognitive events involved both an act of perception and thought, and a further similitude or species. And again like his fellow Franciscans, Ockham was highly critical of this idea. Indeed, he looked upon it as an infringement of the principle of parsimony, according to which, other things being equal, simpler theories are always to be preferred over more complex competitors. Much like Olivi and Auriol, Ockham believed that the objects of perception and thought were represented to us by means of suitably structured acts of cognition. A theory introducing further devices such as species to account for representation, Ockham accordingly found, was unnecessarily complicated. But other than considerations of parsimony, what did Ockham believe was wrong with the theory of species? According to some commentators, Ockham was worried that species would become inner objects of cognition, and that from behind a 'veil of species', it would be impossible to say which representations do, and which representations do not, reliably represent the world. [4] This kind of interpretation invites us to think of Ockham as a precursor of early modern philosophers who objected to representationalism on the ground that it made it impossible to compare reality with our ideas, and thus to ascertain the reliability of our representations.[5] In this paper, however, I will qualify such readings, and argue that they sit uneasily with the broader context of Ockham's epistemology.

More precisely, the paper proceeds as follows. First, section 1 offers a general overview of Ockham's concerns about the theory of species. In particular, it introduces an argument in which Ockham compares the way in which species represent their object to the way in which a statue of Hercules represents this Greek hero. This argument has been described as 'Ockham's most complex and impressive epistemological argument against species', and I will henceforth refer to it as Ockham's Hercules Argument. [6] Although some of the formulations that Ockham uses in developing this argument may give the impression that his critique of species was indeed motivated by worries about our capacity to discriminate between representations that deserve to be relied upon and representations that

[3] For extensive discussion of Olivi's theory of perceptual representation, see J. Toivanen, *Perception and the Inner Senses. Peter of John Olivi on the Cognitive Functions of the Sensitive Soul*, Brill, Leiden 2013, pp. 115-225. On Auriol on intellectual cognition, see R. Friedman, *Act, Species, and Appearance: Peter Auriol on Intellectual Thought and Consciousness*, in G. Klima ed., *Intentionality, Cognition, and Mental Representation in Medieval Philosophy*, Fordham University Press, New York 2015, pp. 141-65.

[4] See, for example, E. Stump, *The Mechanisms of Cognition*, in P. Spade ed., *The Cambridge Companion to Ockham*, Cambridge University Press, Cambridge 1999, pp. 168-203, 180, and D. Perler, *Things in the Mind*, 'Vivarium', 34/2, 1996, pp. 231-53, 233.

[5] For some comparisons between medieval critiques of species and early modern criticisms of ideas, see F. Prezioso, *La species medievale e i prodromi del fenomenismo moderno*, Cedam, Milan 1963. More recently, see K. Tachau, *Vision and Certitude in the Age of Ockham. Optics, Epistemology, and the Foundations of Semantics 1250-1345*, Brill, Leiden 1988, p. 44. Also D. Perler, *Zweifel und Gewissheit. Skeptische Debatten im Mittelalter*, Vittorio Klöstermann, Frankfurt am Main 2006, p. 49.

[6] For this description, see R. Pasnau, *Theories of Cognition*, p. 249.

do not, section 2 will argue that such readings sit uneasily with Ockham's broader epistemological views. Next, section 3 will offer an alternative reading of the Hercules Argument. Finally, section 4 will explore how Ockham's Hercules Argument compares to an apparently similar argument in Ockham's fellow Franciscan, John Peckham (1230-1292).

1. The Hercules Argument

As Ockham understands the theory of species, it holds that distal objects continuously propagate similitudes of themselves, or 'species in medio'. It is this emission of species in medio that allows them to causally interact with distal objects, bridging the spatial gap between agent and patient. For example, when species in medio propagating from a tree impinge on the perceptual power of a human being, this brings about a certain effect there. More precisely, the impingement of species in medio on a perceptual power will result in a 'sensible species' in that power, which functions as a representation of the tree, and which will trigger the formation of a perceptual act pertaining to it. The sensory data thus gathered then get processed by the intellectual powers of the soul, and this results in the formation of an 'intelligible species' that represents the tree's nature to the intellect, and which is causally responsible for an intellectual act that engages with it.[7]

Ockham objects to all three kinds of species mentioned in this cameo presentation of the theory. Species in medio are simply not needed, he argues, because objects can causally interact with others from a distance.[8] In principle, therefore, distal objects could immediately bring about sensible and intelligible species in our cognitive powers without the mediation of species in the medium. But if that is possible, Ockham reasons, then why should we not simply allow distal objects to immediately bring about our acts of perception and thought, without further species complicating the process? As he puts it in book II of the *Reportatio*:

> If the distant object can be the immediate cause of a species in the intellect … it can in the same way be the immediate cause of a sensory and intellectual act without any species[9]

[7] On Ockham's view of species as causes of our cognitive acts, see M. Adams, M. Wolter, *John Duns Scotus: Memory and Intuition*, 'Franciscan Studies' 53, 1993, pp. 175-230, 188. Also D. Perler, *Theorien der Intentionalität*, pp. 336-37.

[8] On Ockham on species in medio, see K. Tachau, *The Problem of the* species in medio *at Oxford in the Generation after Ockham*, 'Mediaeval Studies', 44, 1982, pp. 394-443, and A. Maier, *Das Problem der* species sensibiles in medio *und die neue Naturphilosophie des 14. Jahrhunderts*, in idem, *Ausgehendes Mittelalter*, Vol. II, Edizioni di Storia e Letteratura, Rome 1967, pp. 419-51.

[9] '[S]i obiectum distans potest esse causa immediata speciei in sensu et in intellectu …, eodem modo potest esse causa immediata actus sentiendi et intelligendi sine omni specie'. *Reportatio* II, qq. 12-13 (*OTh*. V, p. 309). All references to Ockham are to the volumes of the *Opera philosophica et theologica*, ed. G. Gál et al, The Franciscan Institute, St. Bonaventure 1967-1988.

To be sure, Ockham was aware that species had been deemed necessary for the assimilation of subject and object of cognition. The reception of a species, philosophers such as Aquinas had said, was what rendered our perceptual and intellectual powers similar to their objects in the way required for cognition.[10] But although he endorses the Aristotelian view that to cognize an object is for a power to become similar to that object, Ockham again sees no role for species. What renders our perceptual and intellectual powers similar to their objects, after all, is nothing but their very acts of perception and thought. In virtue of their inner structures, Ockham believes, these acts resemble certain objects, and so, it is simply by engaging in acts of perceiving and understanding that our cognitive powers assimilate themselves to their objects: in an act of perception 'nothing other that assimilates is needed but the act of cognition', and 'the intellect is sufficiently assimilated to the object by an act of thought caused by it and received in the intellect'. Therefore, Ockham concluded, 'no species is needed'.[11]

But parsimony was not the only motive behind Ockham's critique of species. Indeed, there is considerable consensus among commentators that Ockham understood species to be image-like entities that function as the primary objects of cognition. According to Leen Spruit, for example, Ockham thought of species as 'iconic representations' of their objects. [12] Accordingly, Ockham's repudiation of species is often seen as an attempt to safeguard the directness and immediacy of human cognition.[13] Considerations of parsimony apart, therefore, what seems to be at stake in Ockham's critique of species is a fundamental question about the way in which we cognitively reach out, as it were, to external reality.

This way of reading Ockham has been taken to the task, however, by Claude Panaccio. Discussing Ockham's various arguments against species, Panaccio writes that there is 'nothing in his whole critique' of species that presupposes a view of species as inner objects of apprehension. What is at issue in Ockham's extensive criticism of the species theory, therefore, is really mostly considerations of parsimony, but not worries about a veil of representations being interposed between us and the external world.[14] But if it is perhaps true to say that considerations of parsimony make for the lion's share of Ockham's discussion of species, Panaccio's claim that Ockham's criticism of species nowhere assumes them to be inner objects of apprehension is overstated. And one place where this comes to the fore, is Ockham's Hercules Argument, to be found in questions 12-13 of book II of the *Reportatio*. Here is how Ockham introduces the argument:

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[10] According to Aquinas, the intellect 'assimilatur [rei] per speciem intelligibilem, quae est similitude rei intellectae'. *Summa theologiae* I, q. 14, ad 2.

[11] '[I]ntuitiva non requiritur aliquid, praevium cognitioni, assimilans', and 'assimilatur intellectus sufficienter per intellectionem causatam ab obiecto et receptam in intellectu, igitur non requiritur species'. *Rep*. II, qq. 12-13 (*OTh*. V, p. 273).

[12] Spruit, *Species Intelligibilis*, p. 295.

[13] P. Alféri, *Guillaume d'Occam et le singulier*, Éditions de Minuit, Paris 1989, pp. 225-26; L. Spruit, *Species Intelligibilis,* pp. 292-93, and M. Millner, *The Senses and the English Reformation*, Ashgate, Aldershot 2011, p. 47.

[14] C. Panaccio, *Ockham on Concepts*, Ashgate, Aldershot 2004, p. 30.

> What is represented has to be cognized first; otherwise a representation would never lead to the cognition of what is represented as to something similar. For example: the statue of Hercules would never lead me to a cognition of Hercules if I had never seen Hercules before; nor can I know in another way whether the statue looks like him or not. But according to those who posit species, the species is something that precedes every act of cognizing an object, so that it cannot be posited for the representation of an object.[15]

Schematically, the argument runs as follows:

1. A statue makes me cognize Hercules only if already have cognitive access to him.
2. The same goes for species.
3. But the cognition of Hercules's species precedes the cognition of Hercules.
4. Therefore, the species of Hercules cannot make me cognize Hercules.
5. Hence, a species is unfit to represent Hercules to me.

In this argument, Ockham clearly takes species to be objects of apprehension. After all, I can only cognize Hercules by means of his statue if I am actually aware of the latter, and so, if statues and species do indeed represent in similar ways, species need to be cognized if we are to access the objects that they represent. This, in fact, was how the Hercules Argument was read by Ockham's contemporary John of Reading (ca. 1285-1346) too. According to Reading, indeed, the argument successfully targeted species conceived of as entities that are themselves objects of cognition. In his eyes, however, it did not amount to a compelling argument against species conceived of as mere causal means, rather than as inner objects, of cognition.[16]

But if we access external objects via species much in the way in which we entertain past heroes by means of their statues, what does Ockham believe is so problematic about this? The linchpin of the Hercules Argument clearly is premise (1), but what exactly does it say? According to some commentators, Ockham is making the point that, unless we are acquainted with Hercules previous to and independently of his statue, we cannot establish to what extent the statue resembles him. Similarly, we could not determine whether a species

[15] 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 praevium omni actui intelligendi obiectum, igitur non potest poni propter repraesentationem obiecti'. *Rep*. II, qq. 12-13 (*OTh*. V, p. 274).
[16] 'Ad aliud, cum dicitur repraesentatum debet esse prius cognitum, verum est de illo quod est repraesentatum in aliqua similitudines, quae non tame nest ratio cognoscendi vel repraesentandi, sicut ponitur species, sed quod est etiam obiectum repraesentatum et cognitum, sicut est in exemplo posito'. G. Gál, *Quaestio Ioannis de Reading de necessitate specierum intelligibilium defensio doctrinae Scoti*, 'Franciscan Studies', 29, pp. 66-156, 147-48.

adequately represents Hercules if we did not already know what Hercules looked like. As Dominik Perler summarizes the argument:

> If the intellect had no direct access to the thing itself, it could not compare the representation with the thing. Consequently, it could not judge whether or not the representation is correct.[17]

Again, according to Eleonore Stump:

> Ockham asks how we could ever know whether the species represents reality correctly. In fact, Ockham argues, we can know one thing is a good representation of another only if we can have independent access to the thing represented. We would not know if a statue of Hercules was a good likeness of Hercules unless we had knowledge of Hercules himself.[18]

Ockham's remark that without previous acquaintance with Hercules, I cannot know 'whether the statue looks like him' undeniably goes to suggest this kind of reading. Still, there are at least two reasons why we need to resist the idea that Ockham's critique of species was mainly, or even to an important extent, driven by a concern that from behind the veil of species, we cannot ascertain whether or not a given representation can indeed be relied upon.

The first of these reasons is that it would be philosophically problematic for Ockham to raise this kind of point against his opponents: it would sit uneasily with the broader epistemological views that Ockham himself is committed to. This is a line of argument that will be further developed in section 2 below. The second reason is textual. Admittedly, Ockham in the Hercules Argument points out that without previous and independent cognition of Hercules we will not be able to say whether or not a representation adequately resembles him. But this appears to be the only place in Ockham's critique of species where he raises the worry that we cannot compare representations with their objects in order to establish to what extent they are reliable guides to external reality. And even in the Hercules Argument, this worry comes as something of an afterthought: 'nor can I know in another way whether the statue looks like him or not'.

The focal point of the Hercules Argument, indeed, appears to be another one: inner objects of apprehension 'cannot be posited for the representation of an object'. And this claim is stronger than the claim that, if species are inner objects of apprehension, we have no means of establishing the quality of a given representation. Indeed, it is the claim that species conceived of as inner objects of cognition cannot function as representations of external

[17] D. Perler, *Things in the Mind*, p. 233.
[18] E. Stump, *The Mechanisms of Cognition*, p. 180.

objects at all. As we will find in section 3, in order to appreciate this claim in Ockham, it will be necessary to situate the Hercules Argument in the broader context of his writings.

2. Intuition, Criteria, and Knowledge

There are at least two reasons why it would be philosophically problematic for Ockham to criticize his opponents for not being able to determine whether or not a given species reliably represents its object. The first of these is that Ockham himself is not immune from a similar objection either. As we will see below, if the proponents of species have difficulty establishing whether or not a given representation deserves to be relied upon, then so has Ockham. The second reason why it would be problematic for Ockham to criticize his opponents on the grounds that they cannot ascertain the reliability of a given representation is that, if he himself is not immune from this sort of objection either, it is not clear just how much he thinks this is to be lamented. In other words, it is not clear that, according to Ockham, it is crucial that we be able always to pick out the rotten apples, and to discriminate between representations that do, and representations that do not deserve to be relied upon. But surely, Ockham can hardly hold his opponents to other standards than he does himself. Again, therefore, for Ockham to complain that the proponents of species cannot show that their representation of Hercules, or indeed any other person or object, is reliable, sits uneasy with his own further epistemological views.

To see that Ockham himself is not immune from criteriological problems either, it will be useful to briefly look at the way in which he develops his account of intuitive cognition in opposition to Duns Scotus (1266-1308). According to Scotus, our acts of simple, nonpropositional cognition neatly divide into two categories. On the one hand, there are those acts of simple cognition that pertain to objects that are actually existent or even present, and which moreover represent them as such.[19] These are what Scotus terms 'intuitive cognitions'. Paradigmatic examples include seeings, hearings, and other acts of sensory perception. On the other hand, there are simple cognitions that 'abstract' from the existence or presence of their objects, in that they either pertain to something absent or nonexistent, or, alternatively, pertain to an object that is present or existent but without representing it as such. Acts of the imagination are typical cases of abstractive cognition:

> Some cognition is in itself of an existent object, like that which attains an object in its proper actual existence. For instance, the vision of a colour, and, generally, external sensation. The other cognition is also of an object, yet not as it exists in itself. Rather,

[19] 'Alius autem actus intelligendi est … qui scilicet praecise sit de obiecti praesentis ut praesentis, et existentis ut existentis'. *Quodlibet* VI, in L. Wadding ed., *Joannis Duns Scoti, Doctoris Subtilis, Ordinis Minorum Opera Omnia*, Vol. XXV, Vivès, Paris 1895, pp. 243-44..

> either the object does not exist, or at least that cognition is not of that object insofar as it actually exists. For instance, the imagination of a colour.[20]

Scotus's distinction between intuition and abstraction left a lasting mark on scholastic epistemology, and as Katherine Tachau has pointed out, the history of medieval epistemology and psychology from the early fourteenth century onwards 'can be traced as a development of this dichotomy'.[21] In the hands of later philosophers, however, Scotus's original distinction often underwent considerable modification.

Ockham, for example, followed Scotus in drawing a distinction between intuition and abstraction, but characterized the two categories in a different way. According to Ockham, indeed, intuitive cognitions are simple apprehension 'in virtue of which some contingent truth, especially about the present, can be evidently cognized'.[22] Abstractive cognitions, by contrast, were simple apprehensions that did not lead to such evident cognition of contingent truths. As in Scotus, sense perception and imagination thus emerge as paradigmatic examples of intuition and abstraction respectively. Sense perception, after all, is precisely the kind of psychological mechanism in virtue of which we can normally come to evident cognition about contingent truths obtaining here and now. Acts of the imagination, by contrast, are not normally guides to evident beliefs about what is or is not contingently the case right now, and this makes them come out as abstractive cognitions in Ockham no less than in Scotus. Although Ockham and Scotus thus agree about the paradigmatic examples of intuition and abstraction, Ockham resists Scotus's definition of these categories in terms of the existence or nonexistence, or presence or absence, of the objects to which they pertain. Rather, Ockham characterizes intuition and abstraction in terms of the different kinds of judgments that they enable.

The difference between the two Franciscans perhaps emerges most clearly in the way in which Ockham develops his idea that, although intuitions normally have actually existent objects, this need not always be the case. Whatever a creature can do, Ockham reasons, God can do too and so, if an oak can elicit in me the perception of an oak, God can bring about in me the very same perception even when the oak does not exist. God can bring about intuitive cognitions of nonexistent objects, then, and to allow for this sort of supernatural intervention intuitive cognition must not be defined as a mode of cognition that is of an existent object as existent, or of a present object as present. Scotus's account of intuition thus falters in the light of God's absolute power. But when God supplants a creature's causality and brings about in me the intuition of a nonexistent oak, the ensuing cognitive act still is

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[20] 'Aliqua ergo cognitio est per se existentis, sicut quae attingit objectum in sua propria existentia actuali. Exemplum de visione coloris, et communiter in sensatione sensus exterioris. Aliqua etiam est cognitio objecti, non ut existentis in se, sed vel objectum non existit, vel saltem illa cognitio non est ejus, ut actualiter existentis. Exemplum, ut imaginatio coloris'. *Quodlibet* XIII, in Wadding XXV, p. 521.
[21] K. Tachau, *Vision and Certitude in the Age of Ockham. Optics, Epistemology, and the Foundations of Semantics 1250-1345*, Brill, Leiden 1988, p. 81.
[22] 'Universaliter, omnis notitia incomplexa … virtute cuius potest evidenter cognosci aliqua veritas contingens, maxime de praesenti, est noitita intuitiva'. *Ordinatio*, prol. q. 1 (*OTh*. I, pp. 31-2).

one in virtue of which 'some contingent truth, especially about the present, can be evidently cognized'. Indeed, Ockham believes that a supernaturally caused intuition of a nonexistent oak will correctly lead me to believe that the oak I perceive does not now exist. He explains this surprising view as follows. Normally, when I have an intuitive cognition of an existent oak, both the oak itself and my act of intuition functions as partial causes of my judgment that the oak actually exists. But when one out of two partial causes is lacking, Ockham believes, it often happens that the remaining one produces an effect that is opposite to the effect that it would have brought about when conjoined with the other partial cause.[23] Thus, when my intuition is severed from the existence of the oak, it does not cause the judgment that it would have caused when joined with the existence of the oak, but rather the opposite judgment that the oak does not exist. Accordingly, Ockham writes that 'in virtue of an intuitive cognition of a thing, a thing can evidently be cognized not to be when it is not'.[24]

At this point, we get the impression that intuition, for Ockham, is a preeminently reliable mode of cognition. In fact, we might even be tempted to think of it as infallible. But this temptation must be resisted, for two reasons. Firstly, as Elizabeth Karger has convincingly argued, intuitive cognitions can in special situations naturally elicit erroneous judgments.[25] Sense perceptions being precisely the kind of cognitions that can, in principle, give us knowledge about contingent matters of fact, Ockham classifies all acts of the external senses as intuitive cognitions. [26] But under sub-optimal circumstances, sense-perceptions may well lead to erroneous judgments. This, indeed, is how Ockham analyses perceptual illusions. For example, when I am traveling by boat, the motion of the boat may well distort my intuition of the motionless trees in such a way that I am led to judge that the trees are in motion. In this case, an intuitive cognition of the trees naturally leads to an erroneous judgment.[27]

Secondly, God can sabotage our intuitions, so to speak. Suppose, for example, that God brings about in me an intuitive cognition of an oak that does not exist. Normally, this intuition would elicit the true judgment that the perceived oak does not exist. But God might

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[23] *Ord*. prol., q. 1 (*Ord*. I, p. 70-1). Cf. also Tachau, *Vision and Certitude*, pp. 125-26.

[24] '[P]er notitiam intuitivam rei potest evidenter cognosci res non esse quando non est'. *Ord*. prol., q. 1 (*OTh*. I, p. 70).

[25] E. Karger, *Ockham's Misunderstood Theory of Intuitive and Abstractive Cognition*, in P. Spade ed., *The Cambridge Companion to Ockham*, pp. 204-225, 218-220.

[26] See *Rep*. III, q. 3 (*OTh*. VI, p. 110), and E. Karger, *Ockham's Misunderstood Theory*, p. 225

[27] Stump has challenged Karger's reading by pointing to Ockham's account of afterimages. Afterimages, for him, are qualities impressed on the eye, which under special circumstances become objects of intuition. And when this happens, Ockham thinks, we come to endorse the correct judgment that an afterimage exists. Even under suboptimal circumstances, Stump apparently wants to maintain, intuitive cognitions lead to correct judgments on Ockham's account See E. Stump, *The Mechanisms of Cognition*, 187. But while this may be correct for afterimages, in the case of the seemingly moving trees on the shore what is judged to exist (trees in motion) is certainly different from what is actually intuited (motionless trees). Hence, Stump's appeal to afterimages does not shake Karger's general claim, namely, that under special but natural circumstances, intuitive cognitions can occasionally elicit false judgments.

sabotage my intuition and prevent it from exercising its ordinary causal activity. Indeed, he might prevent it from bringing about any judgment at all and instead bring about a judgment himself: the false judgment that the oak does exist.[28] In the same vein, God might also prevent an intuitive cognition of an existent object from causing in me the evident judgment that the object exists and bring about instead the false belief that the object does not exist.[29]

So intuitive cognition is not an infallible mechanism. Some intuitions give us knowledge about external reality, others do not. But can we tell which do and which do not? No. Ockham does not offer any means to introspectively discriminate between intuitions that lead to true judgments and intuitions that lead to false judgments.[30] And of course he cannot claim some kind of objective vantage point from which to compare reality as his cognitions present it to him with reality as it is in itself. Again, we cannot tell whether or not a given intuition has been sabotaged by God. And the upshot of this is that on Ockham's own account, we cannot tell whether or not a given act that represents an external object to us will give us knowledge about that object. As T. Scott has concluded, on Ockham's account, 'even if we sometimes do know, we can never know that we know'.[31] In like spirit, Luciano Cova has written that Ockham's failure to offer a means to phenomenologically distinguish between veridical and illusory cognitions 'would hinder us in founding an absolute certainty on the basis of which experimental and formal sciences can be developed'. Indeed, on Ockham's account, 'we can never know that we know'.[32]

And this gives us our first reason to doubt whether Ockham can unproblematically raise criteriological difficulties for his opponents. For as we see now, it is not clear that Ockham himself is any better off than the proponents of species whom he criticizes. Just as the defender of species cannot tell whether or not a given species reliably resembles Hercules, Ockham cannot tell whether or not a given intuition leads to a reliable judgment about external reality. And the second reason to doubt whether Ockham can unproblematically raise criteriological questions for the theory of species, is that it is unclear just how much weight he generally attaches to such questions. That is, it is not clear that, in

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[28] 'Tamen Deus potest causare actum creditivum per quem credo rem esse praesentem quae est absens. Et dico quod illa cognitio creditiva erit abstractiva, non intuitiva; et per talem actum fidei potest apparere res esse praesens quando est absens'. *Quodlibet*. V, q. 5 (*OTh*. IX, p. 498). Ockham is here using 'abstractive' in a broad sense, in which every cognition that is not intuitive is abstractive. For this use of 'abstractive', see *Rep*. II, qq. 12-13 (*OTh*. V, p. 257). Also M. Adams, *William Ockham*, University of Notre Dame Press, Notre Dame 1987, p. 503.

[29] Compare *Ord*. prol., q. 1 (*OTh*. I, p. 70): 'forte non est inconveniens quod res intuitive videatur et tamen quod intellectus ille credat rem non esse, quamvis naturaliter non possit hoc fieri'.

[30] L. Cova, *Francesco di Meyronnes e Walter Catton nella controversia scolastica sulla notitia intuitiva de re non existente*, 'Medioevo. Rivista di Storia della Filosofia Medievale', 2, 1976, pp. 227-52, 248-9.

[31] T. Scott, *Ockham on Evidence, Necessity, and Intuition*, 'Journal of the History of Philosophy', 7/1, 1969, pp. 27-49, 45. Also J. Weinberg, *A Short History of Medieval Philosophy*, Princeton University Press, Princeton 1964, p. 259.

[32] Cova, *Francesco di Meyronnes*, pp. 248-49. Compare L. Baudry, *Lexique philosophique de Guillaume d'Ockham. Étude des notions fondamentales*, P. Lethielleux, Paris 1967, p. 177.

Ockham's epistemology, it is crucial that we base our beliefs upon representations that are not only reliable as a matter of fact, but which, in addition, are known to be so by us and recognized as such.

This comes to the fore in his discussion of knowledge in Ockham's commentary on Aristotle's *Physics*. There, he distinguishes between four senses of 'knowledge'. In all four senses, knowing involves assenting to a true proposition.[33] In the first, knowledge is just 'a certain cognition of a proposition that is true; and in this way there are some things that we know on the basis of faith only'. [34] For example, to know that the wall is white, in this sense, it suffices for me to truly believe that the wall is white on the mere basis of someone telling me. Having knowledge in this first sense does not require that I be able to ascertain that the source of my information is in fact trustworthy. Rather, it is the *de facto* reliability of my source that matters to Ockham's first sense of knowledge. And we see something similar in the second sense of 'knowledge'. In this sense, knowledge is an 'evident cognition' that results when we assent to a proposition, not merely on the basis of hearsay, but in virtue of the noncomplex cognition of the referents of its terms.[35] For example, I evidently cognize that the wall is white when I assent to the proposition 'the wall is white' in virtue of the noncomplex cognition the wall and the whiteness that is in it:

> Thus, when no one would tell me that the wall is white, I would nevertheless know that the wall is white on the basis of my very perception of the whiteness that is in the wall, and things work similarly in other cases. And in this way knowledge does not only pertain to what is necessary, but also regards some things that are contingent. [36]

Clearly, my noncomplex cognition of the wall and its whiteness will have to be an intuitive cognition since, as we have seen, Ockham thinks that it is precisely intuitions that yield evident cognitions about contingent matters of fact. In other words, in order for me to know that the wall is white, the following three conditions need to be met:

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[33] For discussion, see Panaccio, *Ockham's Externalism*, in G. Klima ed., *Intentionality, Cognition, and Mental Representation,* pp. 166-85, 181-83.

[34] 'Et sunt variae distinctiones scientiae, etiam non subordinatae. Una est quod scientia uno modo est certa notitia alicuius very; et sic sciuntur aliqua per fidem tantum'. *Expositio in libris Physicorum*, prol. par. 2 (*OPh*. IV, p. 5). The certainty of this 'certa notitia' appears to be psychological certainty, as Ockham later on the same page proceeds to rephrase the condition of certainty in terms of 'firm adherence' to a proposition: 'quia tamen eis sine omni dubitatione adhaeremus et sunt vera, dicimur scire illa'.

[35] 'Aliter accipitur scientia pro evidenti notitia, quando scilicet aliquid dicitur sciri non tantum propter testimonium narrantium, sed etsi nullus narraret hoc esse, ex notitia aliqua incomplexa terminorum aliquorum mediate vel immediate assentiremus ei'. *Exp. Phys*., prol. par. 2 (*OPh*. IV, p. 5). See also *Ord*. prol., q. 1 (*OTh*. I, p. 5).

[36]'Sicut si nullus narraret mihi quod paries est albus, ex hoc ipso quod video albedinem quae est in pariete, scirem quod paries est albus; et ita est de aliis. Et isto modo scientia non est tantum necessariorum, immo etiam est de aliquorum contingentium'. *Exp. Phys,.* prol., par. 2 (*OPh*. IV, p. 6).

i. The wall is white,
ii. I intuitively cognize the wall and its whiteness, and
iii. I am thereby led to assent to the proposition 'the wall is white'.

The important thing to note at this point, is that according to these conditions, I can know that the wall is white even though I may not be able to establish that the cognitions that led me to my assent were indeed veridical intuitions. In order for my assent to the proposition that the wall is white to count as knowledge, it is required that this assent be based upon veridical intuitions of the wall and its colour. There is no fourth requirement, however, stipulating that in order for such veridical intuitions to yield knowledge of the wall's whiteness, I need to recognize them as such.[37]

Put in other terms, Ockham appears to have believed that in order for representations to give us knowledge, it is necessary that they are conducive to true beliefs. It is not required, however, that we be able to tell whether or not they have this property. But if Ockham can know that the wall is white without being able to tell that the representations that led him to believe that the wall is white were veridical, it seems he must grant that a proponent of species can know that Hercules was tall on the basis of a species even though he cannot tell whether or not the species reliably represented Hercules. If Ockham can know that the wall is white without necessarily knowing that he knows, then so can his opponents. Taking the proponents of species to the task for not being able to ascertain the reliability of a given representation, therefore, sits uneasily with Ockham's own epistemological commitments.

3. Hercules in Context

If criticizing his opponents for not being able to ascertain the reliability of their representations does not fit easily with Ockham's broader epistemological views, neither does it appear to have been the main point of his Hercules Argument. Indeed, as we saw above, his remark there that 'not can I know in another way whether the statue looks like him or not' comes as something of an afterthought. The key to the Hercules Argument, rather, seems to lie in its concluding remark, that species 'cannot be posited for the representation of an object'. But why does Ockham believe that this is so?

To address that question, it will be useful to put his Hercules Argument in the broader context of Ockham's writings. More precisely, it will be instructive to turn to the prologue to his *Ordinatio*, where Ockham extensively reviews the idea that 'the cognition of a

[37]As Claude Panaccio and David Piché have recently put it: 'it is sufficient for human knowledge, according to Ockham, that the relevant causal conditions should be fulfilled *in fact*. He does not take it to be necessary, in addition, that we should know that they are so fulfilled'. C. Panaccio and D. Piché, *Ockham's Reliabilism and the Intuition of Non-Existents*, in H. Lagerlund ed., *Rethinking the History of Skepticism. The Missing Medieval Background*, Brill, Leiden 2010, pp. 97-118, 116. See also D. Perler, *Zweifel und Gewissheit*, pp. 235-39 and C. Panaccio, *Ockham's Externalism*, pp. 180-84.

similitude, such as a statue, causes the cognition of that of which it is a similitude'. [38] According to this idea, the perception of a statue can make me think of Hercules, and similarly, the apprehension of a species representative of Hercules can make me think of him. Put differently, according to this idea, both statues and species can be 'posited for the representation' of Hercules. To appreciate Ockham's claim that they cannot, therefore, we need to understand how he responds to the idea that similitudes can make us cognitively entertain the objects they resemble.

First of all, Ockham grants that similitudes that are themselves objects of cognition can cause in us the recollection of an object we are already acquainted with. If I am already acquainted with Hercules, for example, seeing a similitude of him may well cause me to recall Hercules to mind. But if I am not already acquainted with him, seeing his similitude will not lead to me cognize Hercules. [39] And for Ockham, this is an instance of a general principle saying that the cognition of one singular object will never lead me to cognize another that I am not already acquainted with:

> The cognition of one singular, together with the intellect, is never a sufficient cause of the cognition of another singular thing.[40]

But what exactly does this principle say, and how does it apply to the Hercules Argument? According to Robert Pasnau, who has drawn attention to the relevance of this principle for understanding the Hercules Argument, Ockham's point here is that inferential processes are needed to go from cognition of one object to cognition of another. For example, in order to go from seeing smoke to apprehending that there is a fire, I need to make an inference along the following lines: There is smoke. But whenever there is smoke, there is fire. Therefore, there is a fire somewhere.[41] Similarly, when I see a statue of Hercules, this can only give me cognition of Hercules's traits if I go though an inference such as: Hercules's statue is tall. The statue is an accurate representation of Hercules. Therefore, Hercules was tall. The main point of the

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[38] 'Praeterea, notitia similitudinis, sicut statuae, causat notitiam illius cuius est similitudo'. *Ord*. prol. q. 9 (*OTh*. I, p. 251).

[39] '[D]ucitur in actum rememorandi de Hercule et non in notitiam primam ipsius Herculis'. *Ord*. prol. q. 9 (*OTh*. I, p. 254).

[40] '[N]otitia unius singularis nunquam est causa sufficiens -- cum intellectu -- notitiae alterius rei singularis'. *Ord.* prol. q. 9 (*OTh*. I, p. 254). Ockham formulated this principle in response to Scotus's claim that the primary object of any particular science 'virtually contains' all truths pertaining to that science. In particular, Scotus held that knowledge of such a subject virtually included knowledge of its attributes. For a detailed discussion, see Dominique Demange, *Objet premier d'inclusion virtuelle. Introduction à la théorie de la science de Jean Duns Scot*. In E. Karger, J.-L. Solère, G. Sondag eds., *Duns Scot à Paris (1302-2002*), Turnhout, Brepols 2004, pp. 89-116.

[41] Compare: 'videns fumum sine igne arguit quod talis fumus causabatur ab igne, quia alias praesentiam ignis vidit fumum causari, et sic cognoscit ignem esse causam per suum effectum'. *Quodlibet* I, q. 7 (*OTh*. IX, p. 40). For discussion, see also Adams, *William Ockham*, p. 792.

Hercules Argument, accordingly, would be that if all perception is mediated by the apprehension of species, all perceptual cognition would be inferential.[42]

On this reading, Ockham's principle that the cognition of one singular does not lead us to cognition of another object that we are unfamiliar with, is a principle about propositional cognition. Inferences, after all, allow us to go from one proposition to another, and they do not obtain between simple, nonpropositional acts of cognizing. [43]
But when Ockham says that the cognition of one object does not lead to the cognition of another object that we are as yet unacquainted with, his claim is not about propositional cognition at all. His point is rather that, when I apprehend some singular object, this does not lead me to a simple conception of something that I do not already know. The cognition of one thing, Ockham writes, does not lead me to 'the first noncomplex cognition of another thing'.[44]

At first, this claim may look surprising. After all, suppose that I come home after a day's work, and find my front door has been forced open. This discovery immediately leads me to think of the burglar. To be sure, I do not know who he is, but the discovery of my damaged door causes me to picture him in general terms as the man, whoever he is, who has broken into my home. This conception is a nonpropositional cognition of a burglar whom I am not already familiar with, and it is a conception caused by the mere perception of my damaged door. In spite of Ockham's claim to the contrary, then, it is apparently possible for the cognition of one singular to lead me to the first noncomplex cognition of something else that I am not otherwise acquainted with.

However, when he writes that the cognition of one thing does not lead me the first noncomplex cognition of another, Ockham is having a mind a very specific point. And this point is not that the cognition of one object cannot give me any simple conception of another thing at all. Rather, his point is that the cognition of one object does not lead me to cognize an otherwise unfamiliar object 'in itself':

> And therefore it was said before that the cognition of one external thing is not sufficient to lead (with the help of the intellect) to the first simple cognition of another thing in itself.[45]

When he writes that the cognition of one object is insufficient to lead to the first simple cognition of another thing 'in itself', Ockham is making a technical point. As he explains:

[42] Pasnau, *Theories of Cognition*, p. 253.
[43] Compare: 'notitia discursiva, qualis solum est inter complexa'. *Ord*. prol. q. 9 (OTh. I, p. 255).
[44] It does not lead to 'notitiam primam incomplexam alterius rei'. *Ord.* prol. q. 9 (*OTh.* I, p. 254).
[45] 'Et ideo dictum est prius quod notitia unius rei extra non ducit sufficienter, cum intellectu, in notitiam primam incomplexam alterius rei in se'. *Ord*. prol. q. 9 (*OTh.* I, p. 254).

> And I say that a cognition is of a thing in itself when by neither that simple cognition nor by any part of it something different from that thing is cognized.[46]

To be a cognition of some one thing in itself, then, a cognition first of all must uniquely refer to that object. But having a unique reference is not enough. Thus, although our conception of God as a supremely good, wise, and charitable being uniquely refers to God, Ockham denies that it is a conception of God in himself. And the reason is that the content of this conception involves many other things than just God, such as goodness, wisdom, and charity, none of which coincide with God.[47] Despite its unique reference to God, then, our conception of God as a supremely wise, good, and charitable being is not a simple cognition such that 'nothing different' from God is cognized.

This helps to see how apparently obvious counterexamples to Ockham's claim that cognition of one object does not lead to the simple cognition of an otherwise unfamiliar object can be dealt with. Again consider the case where, upon finding my door being forced open, I come to think of the man who broke into my house. Although my conception may uniquely refer to the burglar, it is not a cognition of the burglar in himself, because the content of my cognition involves many other things than just the burglar: it includes me, my house, and the event of breaking into my house. The real point of Ockham's claim that the apprehension of one singular does not engender the simple cognition of other object that is otherwise unfamiliar was that the cognition of one singular does not yield the first cognition of another object in itself. And that point remains unaffected by the apparently problematic burglar example.

Moreover, now that we have a better idea of Ockham's point in saying that the cognition of one object does not lead to the simple cognition of an otherwise unfamiliar object, we have also acquired an important key to the Hercules Argument. For when someone who is already acquainted with Hercules sees a statue of Hercules, this will likely incite him to call up Hercules before his mind's eye. But when someone who lacks previous acquaintance with Hercules sees the same statue, this may lead him to think of 'a Greek hero', or 'an ancient warrior', or 'a tall bearded man'. But none of these cognitions succeeds in uniquely picking out Hercules: as Ockham points out, they no more pertain to Hercules than to Achilles.[48] They fail as cognitions of Hercules in himself, that is. Again, when someone who is unfamiliar with Hercules runs into his statue is thereby made to conceive of 'the man, whoever he is, who sat for the sculptor of this statue', this thought succeeds in

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[46] 'Et voco notitiam rei in se quando illa incomplexa cognitione nec aliqua parte ipsius aliquid aliud ab illa re intelligitur'. *Ord*. prol. q. 9 (*OTh*. I, pp. 254-55).

[47] 'Deus in se non cognoscitur, quia aliquid aliud a Deo hic cognoscitur, quia omnes termini istius propisitionis 'aliquod ens est sapientia', 'iustitia', 'caritas', et sic de aliis, sunt quidam conceptus quorum nullus est realiter Deus, et tamen omnes isti termini cognoscuntur'. *Ord*. d. 3. q. 2 (*OTh*. II, pp. 404-5). For discussion, see J. Pelletier, *William of Ockham on Metaphysics: The Science of Being and God*, Brill, Leiden 2013, p. 177.

[48] 'Unde si aliquis videret statuam Herculis, et nullam notitiam penitus haberet de Hercule, non plus per hoc cogitaret de Hercule quam de Achille'. *Ord*. prol. q. 9 (*OTh.* I, p. 254).

uniquely referring to Hercules, but it still fails as a cognition pertaining to Hercules in himself, insofar as many other things than Hercules enter in the content of this cognition: the sculptor, the statue itself, and indeed the act of sitting for the sculptor.

Again, if cognizing Hercules via his species is like cognizing him via his statue, as Ockham's argument assumes, then apprehending a species of Hercules will lead me to conceive of Hercules under some kind of description. Perhaps I will come to think of him as just a bearded man. But that, as we have already seen, is not a conception of Hercules in himself. Alternatively, I may come to conceive of Hercules as the man represented by my cognitive image. This conception succeeds in uniquely picking out Hercules, but it does not engage with Hercules in himself. And the reason is that, again, this conception does not only entertain the individual Hercules, but its content furthermore engages my own cognitive image and the concept of being a man. Picking up Ockham's own terminology, something 'different from' Hercules himself is also cognized in my conception and its parts. And as a result, it fails as a cognition of Hercules in himself.

The only scenario in which the apprehension of a species can lead me to engage with Hercules in himself, then, would appear to be a scenario where I already have a conception of Hercules in himself. In such a scenario, my apprehension of the species might make me call up that conception just as the perception of any image might call up in me memories of previously perceived objects. However, it is unclear that this scenario is really feasible. More precisely, it is unclear where the conception of Hercules in himself that my apprehension of his species must call up is supposed to come from. Presumably, neither Ockham nor his opponents think we have an innate conception of Hercules in himself, and this means that any such conception must have come from experience. But experience, according to the theory of species as Ockham understands it, is mediated by the apprehension of species, and this, as we have just seen, cannot give us a conception of Hercules in himself. In the end, therefore, it appears that there is no way at all in which the apprehension of Hercules's species can make me cognitively engage Hercules in himself. It fails to engender in me a conception of Hercules in himself, and it unclear how the apprehension of a species of Hercules could ever call up in me a conception of Hercules in himself. And it is in this way, I propose, that Ockham's claim that a species 'cannot be posited for the representation of a thing' is borne out.

As we saw in section 1, Ockham's Hercules Argument was discussed by John of Reading, who argued that, although it admittedly posed a problem for species conceived of as inner objects of cognition, it did not amount to a case against species understood as merely causal means of cognition, which are not themselves apprehended. Some years before Ockham formulated his critique of species, however, his confrere John Peckham had already presented an objection to the theory of species akin to the Hercules Argument. But other than either Ockham or Reading, Peckham believed that this argument could be addressed without necessarily giving up the idea that species are similitudes that we apprehend. Taking a brief look at Peckham's discussion will help us see why this conclusion

would not convince Ockham, and thus to understand how his Hercules Argument is subtly different from other, apparently similar, arguments in contemporary authors.

4. Ockham and Peckham

In his questions *De anima*, the Franciscan theologian John Peckham defends his theory of species by going through a number of possible objections that might be raised against it. One of these arguments goes as follows:

> Nothing is cognized by means of something else that is similar to it unless the thing it resembles is cognized first, just as the absolute must be known before that which is relative to it. Thus, two things that are similar to each other must first be cognized in themselves before one of them is cognized as similar to the other. Therefore, if a thing is cognized through a similitude insofar as it is a similitude, it is first known to be similar and thus is cognized before that to which it relates, which is impossible.[49]

Species represent their objects by resembling them, the argument goes, but in order for any species to function as a representation to me, I have to be able to recognize it as a similitude of its object. However, in order to recognize a species as a similitude of its object, I already need to have some conception of that object. Species cannot make me think of anything that I am not already acquainted with, therefore. And this means that the theory of species falters upon a dilemma. Either species succeed in representing objects to me, but then I must already have conceptions of these objects and so the theory of species presupposes rather than explains my cognitive access to things. Or the theory does not presuppose that I have cognitive access to things, but then it becomes unclear that species can make anything present to me but themselves.

The worry that species cannot make us think of anything we are not already acquainted with, as we have seen, takes center stage in Ockham's critique of species. Also, the point of Peckham's argument that the theory of species fails as an account of representation is reminiscent of Ockham's claim that species cannot be 'posited for the representation of an object'. The argument against species that we get in Peckham's questions on the soul, then, looks akin to the Hercules Argument in Ockham. But where Ockham takes the Hercules Argument to point to a serious weakness of the species theory, Peckham believes that his argument can be answered. Crucially, his answer relies on a

[49] '[N]ihil cognoscitur per alterum in quantum simile nisi praecognito illo cui est simile, sicut prius absolutum quam relativum. Ita prius cognoscuntur extrema similitudinis in se quam unum cognoscitur alteri esse simile. Ergo si res cognoscitur per similitudinem in quantum similitudo est, prius cognoscitur esse similis et ita prius cognoscitur eius correlativum, quod est impossibile'. *Questiones de anima*, qq. 9-10, in *Ioannis Peckham quaestiones disputatae*, ed. G. Etzkorn, Ad Claras Aquas, Rome 2002, p. 425.

distinction between 'simple cognition by contuition', and 'complex cognition by comparison'.

I engage in the latter sort of cognition, Peckham explains, when I come to form such judgments as 'this representation is a reliable similitude of that object', or 'this picture poorly resembles its original'. And unless I arbitrarily came to hold this sort of judgment, forming it does indeed require that, independently of each other, I have access both to the representation and the thing it allegedly resembles. For simple cognition by contuition, however, this need not be the case. Indeed, when one has such a cognition of a species, 'the cognitive power by means of one and the same act is turned to the species and that of which it is a species'.[50]

Peckham's claim here makes reference to a concept that takes centre stage in Bonaventure's theory of divine illumination. As we learn in his *De scientia Christi*, 'every creature relates to God as a trace, as an image, and as a likeness'.[51] Consequently, we need to look upon the sensible world as 'a mirror through which we may pass to God'.[52] More precisely, we need to look upon the world as a 'trace' bearing witness of its creator, recognizing God in every tree and every stone. As Bonaventure explains in his *Itinerarium mentis in Deum*, 'the created beings of this sensible world signify the invisible things of God partly because God is the origin, exemplar, and goal of all creation, and every effect is a sign of its cause; every copy is a sign of its exemplar; and the road is a sign of the goal to which it leads'.[53] This process of recognizing the creator in his creation, now, is what Bonaventure terms 'contuition'. Somehow, that is, in intuiting the things around us, we 'contuit' their creator, and it is this mode of cognition that puts us in contact with the Ideas in accordance

[50] 'Est enim duplex cognitio: simplex per contuitionem, et composita per collationem. In primo genere cognitionis, virtus cognitiva eodem actu converitur super speciem et super illud cuius est. In secundo genere oportet praecognoscere'. *Quaestiones de anima* 9-10, in *Questiones disputatae*, p. 433. In his commentary on the *Sentences*, Aquinas had similarly written that 'in speciem vel in imaginem contingit fieri duplicem conversionem: vel secundum quod est species talis rei, et tunc est eadem conversion in rem et speciem rei; vel in speciem secundum quod est res quaedam'. II *Sent*. d. 4, q. 1, a. 1, ad 4. In Aquinas, this claim arguably needs to be understood against the background of his idea that species are formally identical with their objects. The species of *x*, on this account, just is the very form of *x*, insofar as it is instantiated in a cognitive power. Accordingly, for that power to turn to the species of *x* is to turn to the very thing that gives *x* its identity. For discussion, see D. Perler, *Essentialism and Direct Realism: Some Late Medieval Perspectives*, 'Topoi', 19/2, 2000, pp. 111-122, 115-16. It is not clear, however, that the same idea is at work in Peckham's claim here as well. For, as Caleb Colley has recently argued, an intelligible species for Peckham 'leads to cognition because of its similarity, but not its identity, to the material form'. C. Colley, *Peckham on Life and Mind*, unpublished dissertation, University of South Carolina 2014, p. 133.

[51] 'Creatura enim comparatur ad Deum in ratione vestigii, imaginis, et similitudinis'. *De scientia Christi* 4, in *Opera Omnia*, Vol. V, ed. PP. Collegii a S. Bonaventura, Quaracchi, Florence 1901, p. 24.

[52] '[P]onendo totum istum mundum sensibilem nobis tanquam speculum, per quod transeamus ad Deum'. *Itinerarium mentis in Deum* 1.9, ed. P. Boehner, Z. Hayes, Franciscan Institute Publications, St. Bonaventure 2003, pp. 51-2.

[53] 'Significant autem huiusmodi creaturae huius mundi sensibilis invisibilia Dei, partim quia Deus est omnis creaturae origo, exemplar et finis, et omnis effectus est signum causae, et exemplum exemplaris, et via finis, ad quem ducit'. *Itinerarium* 2.12, pp. 78-9.

with which the world was made.[54] And it is in a similar way, Peckham suggests, that, in apprehending a species, we are simultaneously brought in contact with that to which the species pertains. The species of a tree, Peckham wants to say, can somehow make its object present to me just as the tree itself can give me some kind of cognitive access to God, even though I may no more have species-independent access to the tree than I know God otherwise than in and through creation.

But although Peckham's response may go some way in addressing the problem that he himself had raised for species, it does not take away what I have argued is the fundamental problem of Ockham's Hercules Argument. After all, when I recognize the creator in the things around me, the perception of a tree or a stone will normally cause me to engage God under some kind of description. That is, recognizing the creator in his cratures will normally cause in me such conceptions as 'the ultimate cause of this tree', or 'the first cause of the entire world I see around me'. Typically, indeed, this will be the kind of conception that contuition can give me. A more detailed conception of God would arguably require the kind of face to face cognition of the creator that cannot be had in this life.

When Peckham applies the concept of contuition to the theory of species, therefore, the suggestion is as follows. When I apprehend the species of an object that I am otherwise unfamiliar with, this will make me conceive of that object roughly as 'the external cause of this image'. Alternatively, when I apprehend a species of an object that I am not already acquainted with, I may come to conceive of that object under such descriptions as 'something like this' or 'whatever corresponds to this image'. Again, I engage with the object in sync with its species: I contuit the former in its representation.

But at this point, it is not hard to see why Ockham would not find this answer satisfactory. For just as 'the ultimate cause of this tree' and 'the first cause of the universe' are not conceptions of God in himself, to think of an object as 'something like this' or 'whatever corresponds to the picture I form' is not to think of that object in itself. With his appeal to contuition, Peckham has argued that the apprehension of species may well succeed in giving us some conception of their objects, even though we may not have access to these objects otherwise than via their species. But what his appeal does not address, is the worry motivating the Hercules Argument in Ockham: the worry that, blocking previous acquaintance that is not mediated by species, the apprehension of inner representations does not give us access to things in themselves.

[54] As Jacques-Guy Bougerol summarizes, contuition for Bonaventure is a 'connaissance médiate, c'est-à-dire, saisie intellectuelle de la présence de l'Etre infini dans et par l'être fini'. J.-G. Bougerol, *Lexique Saint Bonaventure*, Éditions Franciscaines, Paris 1969, p. 42. On Bonaventure on contuition, see also L. Bowman, *The Cosmic Exemplarism of Bonaventure*, 'The Journal of Religion', 55/2, 1975, pp. 181-98, 197; I. Delio, *Simply Bonaventure. An Introduction to his Life, Thought, and Writings*, New City Press, New York 2001, p. 63, and T. Scarpelli Cory, *Bonaventure's Christocentric Epistemology: Christ's Human Knowledge as the Epitome of Illumination in 'De Scientia Christi'*, 'Franciscan Studies', 65, 2007, pp. 63-86, 69-71.

Conclusion

Famously, Ockham rejected the theory of species to replace it with an act theory of representation. The representation of external objects, he argued, is not mediated by special representational devices such as sensible or intelligible species, but is carried out by suitably structured acts of perception and thought. His criticism of species is partially motivated by considerations of parsimony, but these do not tell the whole story. Indeed, Ockham also sees species as inner objects of cognition, which mediate our access to reality in much the same way in which a statue of Hercules mediates our cognitive access to this Greek hero.

But just what is wrong with this picture of cognition, according to Ockham? On the basis of what I have called Ockham's Hercules Argument, some scholars have argued that Ockham worries that, from behind a veil of species, it would be impossible to compare a species to its original, and thus to assess the quality of any given representation. This paper has argued, however, that such readings are problematic on both philosophical and textual grounds. They are philosophically problematic, in that for Ockham to raise this sort of worry for the species sits uneasily with his own epistemological standards. They are textually problematic, because the main point of Ockham's Hercules Argument, is not that we cannot compare species with their originals to ascertain their reliability. Rather, the point is that, independently of whether or not we can ascertain the reliability of a given species, the apprehension of similitudes just is not the kind of mechanism that can make anything present to us that we are not already familiar with. This was a worry that, before Ockham, had already been discussed by his fellow Franciscan John Peckham. But whereas Peckham thought the problem could be addressed by harkening back to the Bonaventurian concept of contuition, we have seen that Peckham's answer fails to take away the fundamental problem of Ockham's Hercules Argument: the problem that, from behind the veil of species, access to things 'in themselves' remains foreclosed.