

THINKING ABOUT THINGS: SINGULAR THOUGHT IN THE MIDDLE AGES*

In one corner Socrates; in the other, on the mat, his cat Felix. Socrates, of course, thinks (correctly) that Felix the Cat is on the mat. But there's the rub. For Socrates to think that Felix is on the mat, he has to be able to think about Felix, that is, he has to have some sort of cognitive grasp of an individual – and not just any individual, but Felix himself. How is that possible? What is going on when we think about things?

These questions have a contemporary flavour. First, whether an act of thinking is able to grasp an individual is the problem of 'singular thought'. Second, whether an act of thinking is able to single out some particular individual, that is, to latch onto a given object in the world, is roughly the issue of *de re* thought (so-called from its relation to issues of *de re* belief). Third, whether a thinker can know what thing a thought is about touches on the debate between internalism and externalism, narrow content and wide content.

My agenda is mediæval rather than contemporary, however. These self-same questions are the key to understanding the evolution of cognitive psychology under High Scholasticism (1250–1350). For difficulties in explaining how it is we can think about things posed a challenge to the working paradigm of cognitive psychology, prompting a variety of responses and spurring innovative theories, fragmenting the initial consensus on an Aristotelian approach to the philosophy of mind. In what follows I'll sketch the main lines of the mediæval debates: Aquinas presenting the dominant paradigm for cognitive psychology (§1), the initial challenges to the paradigm over the question of singular thought (§2), Scotus devising a 'hybrid' account in response (§3), and Ockham proposing a radically different approach to psychological explanation altogether (§4).

1. OUR STORY THUS FAR

Aquinas offers a sophisticated and elegant theory to explain psychological phenomena, a theory based on Aristotle as interpreted by the late Greek commentators and the Arabic commentators, especially Avicenna and Averroës, with an eye to particular points of Christian doctrine, most notably the prospect of personal immortality. The additions and accretions have made it a

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‘neo-Aristotelian’ account; the tensions and conflicts among its various parts have been ironed out, and the whole is an admirable blend of disparate elements into a unified theory. Similar attempts at synthesis were underway in other branches of philosophy, with greater and lesser success; the critical assimilation of aristotelian philosophy was the new intellectual project of the Latin Christian West. In psychology, at least, it seemed to triumph.

The fundamental principle of the neo-Aristotelian synthesis in psychology is that *psychological phenomena are to be explained in terms of the internal mental mechanisms that bring them about*. In the case of cognition, these mechanisms are subpersonal and semi-autonomous, causally connected to one another and analyzed in terms of potency and act; their existence and nature is deduced from the functions they discharge. Typically, these mechanical modules – usually called ‘faculties’ – transfer or ‘transduce’ information:¹ a process the Scholastics described as the ‘transmission of form’ and, when information-preserving, as ‘having the same form’. The vehicle² for the form is a kind of mental representation, called a *species*, that mediates among the several faculties of the mind. Therefore, the best explanation of psychological phenomena, or at least of cognition, is given by functionally-defined subpersonal mechanisms operating on representations. At this level of generality the neo-Aristotelian synthesis closely resembles the project of contemporary cognitive science.

Details make the picture concrete without altering this fundamental similarity. When Socrates encounters Felix the Cat on the mat, the following train of events is set in motion.³ Felix, through the intervening medium,⁴ has a causal impact on Socrates’s various sense-organs: each of the affected sense-organs is put into one of its possible determinate states δ_i by the way in which Felix causally acts on it. Each particular sense-organ is the locus of a particular sense-faculty in the expected way – the eye is the sense-organ of the faculty of vision, the ear the sense-organ of the faculty of hearing, and so on.

¹ Roughly, a transducer takes physical events as input and maps them onto symbols of some sort. See Pylyshyn [1984].

² The term ‘vehicle’ deliberately straddles the difficult question whether it *is* the form of the object or merely *contains* it somehow. See King [2005](a).

³ The following account of sensitive cognition is ultimately derived from Aristotle, *de an.* 2.12 424^a17–24, who likens the process to the impression of a seal in wax by a signet-ring.

⁴ How an external object exercises its causality through the medium is dealt with by the appropriate science: in the case of vision, the science of optics (*scientia perspectiua*). I shall ignore the details here in the interests of the larger picture. See Tachau [1988].

In general, a sense-faculty is the *form* of its associated sense-organ, which is a particular instance of the form-matter relation between soul and body. When a sense-organ is part of a living whole, animated by a sense-faculty, it is receptive to a range of causal influences and responds differentially to differential causal input. In the case of vision, for example, rods and cones in the eye fire in patterns that are correlated with distinct external causes (and undergo complex integration for binocular vision). The receptivity of the sense-faculty just is its associated sense-organ's differential responsiveness to stimuli, such that the sense-organ is able to be in a range of determinate states $\delta_1, \dots, \delta_n$; each state δ_i corresponds to an act of 'seeing' σ_i of a given sort of visual appearance.⁵ When Socrates encounters Felix, then, an event transpires that may be described in three theoretically rich ways:

- Felix causes Socrates's eye to be in state δ_i
- Socrates's faculty of vision, which is in potency to σ_i , becomes actually σ_i
- Socrates sees Felix

So too *mutatis mutandis* for the other senses. The particular states of each sense-organ then causally affect the sense-organ associated with the 'common' sense (the heart), which unites the diverse external sense-modalities, coördinating their deliverances through the common sensibles, such as shape and number, which are able to be sensed by more than one faculty, in contradistinction to the proper sensibles. This results in a composite determinate configuration of the heart as a sense-organ, reducing the common-sense faculty from potency to act in the sensing of the object. In the case at hand, it is the combined sight and sound (perhaps smell) of Felix, on the mat. The sensing of Felix is known as the *sensible species*, which is stored for later reference in memory whence the imagination can draw it forth (in which case it is known as the *phantasm*). The systematic correlation of objects with such species is part of the information-preserving aspect of perception: a given object regularly causes sensitive cognition of a given kind, and the sensible species is a concrete particular preserving the relevant information about the external object. In short, the object and the sensible species are isomorphic – they have literally the same form, the mediæval way of saying that the representation of an object encodes information about that object uniquely.

To summarize: the neo-Aristotelian analysis of sensitive cognition turns first on an exact understanding of the form-matter relation of the sense-faculty and its associated sense-organ, treating this relation as a variety of the act-potency relation. The object and the sensing are 'formally identical'. Initially

⁵ The given determinate state of the sense-organ δ_i is known as the *species impressa*, and the corresponding determinate actualizing of the sense-faculty's potencies σ_i is known as the *species expressa*.

the sense-faculty is merely passive with respect to sensing.⁶ In general, something is reduced from potency to act only by an agent cause, that is, whenever there is some actualizing process going on there is an agent which causes the occurrence of that process.⁷ In sensitive cognition, the sensed object is therefore the agent cause of the determinate actualization of the potencies of the sense-faculty. External objects are actually sensible; in standard circumstances, they causally bring it about that they are actually sensed. The distinction of external and internal senses seems required by the evident facts of experience, but each faculty is given the same kind of potency-act-cause analysis.

The analysis of sensitive cognition is common to humans and other animals. In the case of humans, the same conceptual apparatus is deployed to explain intellective cognition, on analogy with sensitive cognition. There are three main points of difference. First, the intellective soul is immaterial and therefore has no associated ‘organs’; although the close connections between the brain and thought were recognized, the brain is not the organ of thought the way the eye is the organ of vision or the ear the organ of hearing. Second, an agent cause must be postulated for intellective cognition, the operation of which is analogous to the causal activity of the external object in sensitive cognition; this is the agent intellect, in contradistinction to the possible intellect (less commonly ‘material intellect’). Third, whereas sense deals with particulars, the intellect deals with universals, and so the information passed along from the senses has to be appropriately altered.

Bearing in mind these points of difference, Aquinas works through the analogy as follows. There are two faculties involved in intellective cognition, the agent intellect and the possible intellect. The possible intellect is the faculty that is potentially able to think – that is, the faculty whose actualization is an occurrent act of thinking, just as the sense-faculty associated with a given sense-organ is potentially able to sense an object. No intermediate step of affecting matter is needed, since intellective cognition does not depend on an organ, or indeed on the body at all. By the same token the processes of sensitive cognition do not of themselves set in train the events constitutive of

⁶ The sense faculty is not totally passive; it is the potency of a living sense-organ, quite a different thing from an inanimate receptacle such as a mirror or a lump of wax. The point is that sensing must involve an actualization of the sense-organ, which is passive in respect of its cause.

⁷ Unless there were an agent cause for the actualization of the potency, there would be no more reason for the potency to be actualized at one time rather than another; hence the process would either always be actualized or never be actualized, each of which is evidently false.

intellective cognition. Hence there are two distinct and sequential functions discharged by the agent intellect in bringing about thought:

- (a) The agent intellect *abstracts* from the sensible species (or the phantasm) its universal features, thereby creating an item in intellective soul with the requisite generality. This item is the intelligible species; in the case at hand, felinity is abstracted from the sensible species of Felix.
- (b) The agent intellect *impresses* the intelligible species on the possible intellect, reducing it from potency to act in a determinate act, namely a thinking-of-felinity.

The transduction of information from the sensitive soul is performed in (a). The sensible species is appropriately ‘dematerialized’ and thereby rendered less concrete, since it is freed from its individualizing conditions. No change in form takes place, though. The structural features of the information carried by the intelligible species is the same as that carried by the sensitive species. This general representation is then the vehicle for bringing about an occurrent act of thinking, as spelled out in (b). The content of this act of thinking is provided by the only information available: the common nature abstracted from the sensible species and present in the intelligible species. Hence it is an act of thinking about felinity, about cats in general. The intelligible species is then stored in memory, able to be used at will in future acts of thinking.

It is but a short step from occurrent acts of general thought to the rest of intellectual cognition. Once general concepts are available in the intellective soul, stringing them together into propositions is a matter of mental acts of ‘combination’ or ‘division’ (corresponding respectively to affirmation and denial); sequences of propositions constitute chains of reasoning. So it is that all cognitive psychology is explained by the mental mechanisms postulated by the neo-Aristotelian synthesis.

There is much to admire in the theory. An economical set of principles yields a theoretically rich and articulated structure, one that can plausibly lay claim to being a complete theory of cognitive psychological phenomena.

2. CORRECTIONS AND CHALLENGES

The attack on the neo-Aristotelian synthesis was not long in coming. Shortly after Aquinas’s death, the English Franciscan William de la Mare published a short treatise entitled *Correctorium fratris Thomae*. In it he listed a series of claims attributed to Aquinas (usually directly quoted from his works), reasons not to adopt or endorse the claim, and arguments for an alternative to Aquinas’s view – the ‘corrections’ of the title. William’s treatise provoked a flurry of responses; its adoption in 1282 as the official Franciscan position with regard to Aquinas *vis-à-vis* his Dominican defenders lent a further sectarian

air to an already bitter quarrel.

The second of the ninety-odd articles William de la Mare wrote to correct Aquinas raises the problem of singular thought. He puts the problem as follows:⁸

[Aquinas] says in *sum. theol.* 1^a q. 14 art. 11 *ad* 1 that our intellect has no cognition of singulars. For our intellect abstracts the intelligible species from individuating principles, and, accordingly, the intelligible species in our intellect cannot be a likeness of the individuating principles.

Note the exact form of William's complaint. He tries to explain Aquinas's denial of singular thought by referring to how the faculties of the intellectual soul function. In particular, William charges Aquinas with not being able to provide a mechanism that allows singular thought to take place. That is the substance of his point about abstraction "from individuating principles," for everyone agrees that we are capable of singular thought; we can tell Peter from Paul, however this may occur. The trick is to provide an explanation that grounds this everyday ability, and that is what William claims Aquinas cannot do.

The many vehement replies indicate that William had indeed touched a raw nerve. Richard Knapwell, likely the author of the *Correctorium corruptorii* "Quare" (perhaps the first reply), is typical. He presents William's claims and arguments in careful detail, and then offers a blizzard of citations to refute them, pointing, as do contemporary defenders of Aquinas, to *sum. theol.* 1^a q. 86 art. 1. The question at stake there is whether our intellect cognizes singulars. Aquinas declares that it does not and cannot, at least, in a straightforward or direct way. He explains this qualification by stating that the intellect can have cognition of singulars "indirectly" (*indirecte*), "as if by some kind of reflection" (*quasi per quandam reflexionem*). Reflection on what? Ever since Knapwell, defenders of Aquinas have linked this cryptic and hesitant remark to Aquinas's earlier declaration in *sum. theol.* 1^a q. 84 art. 7 that the intellect must "turn to phantasms" (*conuersio ad phantasmata*) in order to think. Yet it is unclear how these texts are supposed to go together. Does the intellect turn to the phantasm by 'reflecting' on it? If so, what does this mean? How does it work? Even with the best will in the world, the partisans of Aquinas's "indirect" knowledge cannot say that his vague references to mental functions count as specifying a mechanism by which singular thought takes place – at

⁸ As reported by Richard Knapwell in Glorieux [1927] 12–13: "Item, quaestione 14 articulo 11, in responsione primi argumenti dicit quod intellectus noster non cognoscit singularia; quia intellectus noster abstrahit speciem intelligibilem a principiis indiuiduantibus; unde species intelligibilis nostri intellectus non potest esse similitudo principiorum indiuiduantium."

best it is no more than a suggestion about where an answer might be found, not an answer itself.⁹

There are reasons to be skeptical that an account of singular cognition is available to Aquinas – at least, singular thought of material composite substances. Roughly, if the content of an act of thinking is given by the intelligible species, namely when the agent intellect impresses it on the possible intellect to cause an occurrent act of thought, then in order to think of Felix at all Socrates would have to have an individual intelligible species. Yet as we have seen, it is not possible in this life to have an individual intelligible species naturally, given Aquinas’s account of human psychology. (If mental content is provided in some other way Aquinas owes us an account of it.) There is no psychological means for Aquinas to distinguish:

- a thought *occasioned* by the phantasm
- a thought *directed* to the phantasm

Yet distinguish these he must, since the one is naturally universal and the other purportedly not.

Without a detailed response to William de la Mare’s criticism, the neo-Aristotelian synthesis in psychology founders on the problem of singular thought, despite the best efforts of Knapwell and others. This is not to deny its genuine virtues; Aquinas’s thought was powerful and systematic enough to command defenders even beyond partisanship, and continues to do so. But the wall had been breached and the battering-ram was the intellectual cognition of singulars.

Even if we grant William his criticism, it isn’t as though he is in a better position; to point out that we need to have an account of singular cognition is not to provide one, and the Franciscans as well as the Dominicans had no theory to hand. Broadly speaking, the Dominicans tried to patch up the neo-Aristotelian synthesis by elaborating theories of how ‘indirect’ knowledge was possible. Others – seculars and Franciscans alike – were less tempted by this route than by the prospect of redesigning some or all of Aristotelian psychology. Bonaventure, Matthew of Aquasparta, and later Peter John Olivi tried to revive an ‘Augustinian’ account of cognition. Durand of St.-Pourçain argued that no mechanism was necessary. Most noteworthy of all such attempts was the ‘illuminationist’ approach of Henry of Ghent, who argued that in intellectual cognition the phantasm is not transformed but viewed “in a new light” (and hence not necessarily universalized). But none of these approaches com-

⁹ Bérubé [1964] charges Aquinas’s opponents with conflating ‘only indirect knowledge of the singular’ with ‘no knowledge of the singular at all’. But surely this misrepresents William’s objection, which is that Aquinas has no way to explain even indirect cognition of the singular.

manded wide assent, and there was no consensus.

3. JUST WHAT THE (SUBTLE) DOCTOR ORDERED

John Duns Scotus not only recognized and addressed the problem of singular thought, he correctly distinguished it from *de re* thought – roughly, admitting the former but denying the latter. In so doing he set the terms of the debate in psychology for the centuries to come.¹⁰ For over the course of several works, Scotus invented and pioneered the distinction between *intuitive cognition* and *abstractive cognition*, which rapidly became a staple.¹¹ In his late and mature quodlibetal questions, Scotus introduces intuitive cognition as follows (*quodl.* 6.19):¹²

There is an act of understanding. . . that is cognition precisely of a present object *qua* present and of an existing object *qua* existing. . . Now this sort of intellective act can properly be called ‘intuitive’ since it is an intuition of a thing as existing and present.

He offers a more concise description slightly later (*quodl.* 13.27):¹³

There is some cognition of the existent *per se*, which attains the object in its proper actual existence.

Taking each characterization into account, we can say that an intuitive cognition is a cognition of a present existing individual as present and existing. By contrast, Scotus describes abstractive cognition as follows (*quodl.* 6.18):¹⁴

One [kind of cognition] is indifferent whether the object exists or not, and also whether it is present in reality or not. . . This act of understanding can quite properly be called ‘abstractive’ since it abstracts the object from existence or nonexistence, from presence or absence.

¹⁰ “The history of medieval theories of knowledge from *ca.* 1310 can be traced as a development of this dichotomy” (Tachau [1988] 81).

¹¹ There were intimations before Scotus, most notably in Vital du Four; see Lynch [1972] 463n13, though Lynch’s claim that Vital has a theory to rival that of Scotus is, as Bolter [1982] remarks, “unduly enthusiastic”. Scotus’s texts are collected in Day [1947] and discussed in Pasnau [2003].

¹² “Alius autem actus intelligendi est. . . qui scilicet praecise sit obiecti praesentis ut praesentis et existentis ut existentis. . . Ista, inquam, intellectio potest proprie dici intuitiva, quia ipsa est intuitio rei ut existentis et praesentis.”

¹³ “Aliqua ergo cognitio est per se existentis, sicut quae attingit obiectum in sua propria existentia actuali.”

¹⁴ “Unus indifferenter etiam respectu obiecti existentis et non-existentis, et indifferenter etiam respectu obiecti non realiter praesentis sicut et realiter praesentis. . . Iste actus intelligendi potest satis proprie dici abstractivus, quia abstrahit obiectum ab existentia et non-existentia, praesentia et absentia.”

He again offers a more concise description later (*quodl.* 13.27):¹⁵

There is also a cognition of the object, but not as existing as such – either because the object does not exist at all, or at least because the cognition is not of it as actually existing.

Hence an abstractive cognition is a cognition of an object without regard to either its presence or existence. It does not exclude the existence or the presence of the object in its content; those features are merely not included, which is not the same as being positively excluded from the conception of the object.

Scotus’s distinction between intuitive and abstractive cognition therefore rests on whether ‘existence’ and ‘presence’ are part of the mental content of the cognition, or ‘abstracted’ away. Hence abstractive cognition may, and intuitive cognition must, be directed at individuals. This is reflected in Scotus’s technical account of each kind of cognition. According to Scotus, Socrates has an intuitive cognition of Felix when two real relations obtain: (*a*) a third-mode real relation of the measureable to the measure, and (*b*) a relation of “getting hold of the thing as its terminus” (*relatio attingentiae alterius ut termini*).¹⁶ The first condition says in essence that the cognition is accurate to the extent that it lives up to the object at which it is directed, capturing the object as it is; the second, that it latches onto the object. Socrates has a merely abstractive cognition of Felix when the first condition is relaxed to be merely potential or aptitudinal rather than real and actual, and the second replaced by an actual relation of reason to a nonexistent possible object.¹⁷ In either case, Socrates is cognitively related to Felix as an individual, not to felinity or something else. For this to be possible, of course, Scotus has to reject Aquinas’s contention that the intellect is capable only of universal cognition. He explicitly does so. In *quodl.* 6.19 he offers the following argument:¹⁸

¹⁵ “Aliqua etiam est cognitio obiecti, non ut existens in se, sed uel obiectum non existit uel saltem illa cognitio non est eius ut actualiter existens.”

¹⁶ See *quodl.* 13.35. The scholastic theory of third-mode relations is derived from Aristotle, *met.* 5.15 1020^b26–32; see Scotus, *in met.* 5.11. There is no critical discussion of the extremely difficult paragraphs 13.37–39 in the literature; Day [1947] simply skips them (64).

¹⁷ Scotus allows for another possibility, namely that the abstractive cognition can be the object of a reflexive act which is then related to its object by a relation of reason (*quodl.* 13.44). Since abstractive cognition need not be of singulars whereas intuitive cognition must be, I won’t pursue the details of abstractive cognition further here.

¹⁸ “Quia omnis perfectio cognitionis absolute, quae potest competere potentiae cognitionis sensitivae, potest eminenter competere potentiae cognitionis intellectivae;

Every perfection which is a perfection of cognition absolutely and which can be present in a faculty of sense-knowledge can pertain eminently to an intellective cognitive faculty. But it is a matter of perfection in the act of knowing *qua* knowing that what is in fact known be attained perfectly, and this is so when it is attained in itself and not just in some diminished or derivative likeness of itself. On the other hand, a sense-power has such perfection in its knowledge, because it can attain an object in itself as existing and present in its real existence, and not just diminutively in a kind of imperfect likeness of itself. Therefore this perfection pertains to an intellective power in the act of knowing. It could not pertain to it, however, unless it could know an existing thing and know it as present either in itself or in some intelligible object which contains the thing in question in an eminent way.

The key idea here is that if sense can do it, then the intellect must be able to as well; we sense individuals, and therefore must equally be able to conceive them – that is, singular thought must also be possible.

Scotus clearly intended intellective intuitive cognition to be addressed to the issue of singular thought, and to the shortcomings in the neo-Aristotelian synthesis.¹⁹ The doctrine is meant to explain how singular thought takes place; it does so in standard mediæval fashion by describing how singular concepts are acquired: in the case of intellective intuitive cognition, through direct contact with individuals in the world – exactly what was missing in Aquinas. There is some indirect textual evidence that Scotus had William de la Mare’s specific criticisms of Aquinas in mind. For Scotus usually introduces

nunc autem perfectionis est in actu cognoscendi, ut cognitio est, perfecte attingere primum cognitum; non autem perfect attingitur quando non in se attingitur sed tantummodo in aliqua deminuta uel deriuata similitudine ab ipso; sensitiua autem habet hanc perfectionem in cognitione sua, quia potest obiectum attingere in se, ut existens et ut praesens est in exsistentia reali, et non tantum deminute attendendo ipsum in quadam perfectione deminuta; ergo ista perfectio competit intellectiuae in cognoscendo; sed non posset sibi competere nisi cogosceret existens et ut in exsistentia propria praesens est, uel in aliquo obiecto intelligibili eminenter ipsum continente.” Scotus gives a similar argument in *quodl.* 13.29.

¹⁹ It used to be thought – presumably in the wake of the criticism offered by Ockham and Aureol – that the motive for the doctrine of intuitive and abstractive cognition was epistemological, namely to avoid scepticism by providing a secure ground for contingent truths. On the reading offered here, the motive is not epistemological (concerned with explaining and grounding claims to knowledge) but psychological (concerned with explaining and grounding singular thought). Once singular thought is possible, we can sensibly raise questions about contingent knowledge, that is, knowledge involving singulars. But the initial impetus for the doctrine is psychological.

his distinction between intuitive and abstractive cognition in connection with worries about the Beatific Vision, which, after all, is meant to be the direct intellectual experience of an individual, namely God (or more exactly Christ as Saviour);²⁰ it is no accident that the first objection given by William de la Mare to Aquinas's claim that we do not have cognition of singulars is that it makes it impossible for the blessed in Heaven to have the Beatific Vision:²¹

[Aquinas's view] gives an occasion for going astray, since according to it neither separated souls nor angels can cognize Christ in Heaven by an intellectual cognition.

The doctrine of intuitive and abstractive cognition was designed to remedy this defect. The resulting psychological theory is no longer a 'neo-Aristotelian' account, since it includes foreign elements; the doctrine is just bolted onto the side of the existing theory, which is now a hybrid. So much for the traditional view of mediæval philosophers as slavish followers of Aristotle.

When Socrates encounters Felix, he can have an intellectual act that stands in a dual real relation to Felix. On the one hand, it 'represents' Felix, at least to the extent of having its accuracy assessed with respect to Felix rather than anything else. On the other hand, it 'gets hold' or 'latches on' to Felix as an external object in the world. These are indeed the key features of singular thought. But we need to draw another distinction. For Scotus wants to distinguish sharply between two different cases: (a) singular thought, in which Felix as an individual is conceived; (b) *de re* thought, in which Felix is grasped as Felix, that is, as the very individual he is. Put another way, Scotus holds that there is a difference between conceiving of an individual *qua* individual and conceiving of it *qua* the very individual it is, roughly the distinction between individuality and identity.²²

Scotus's reasons for insisting on the distinction between singular thought and *de re* thought are metaphysical at bottom. For Scotus maintains that there are singular essences, so that Felix has an essence beyond his specific feline nature, an essence proper to Felix alone which cannot be had by anyone

²⁰ Dumont [1989] proves, beyond the shadow of a textual doubt, that Scotus's doctrine of intuitive and abstractive cognition is deeply linked with his attempt to find a philosophically and theologically adequate account of the Beatific Vision.

²¹ Glorieux [1927] 13: "Hoc praebet occasionem errandi, quia secundum hoc animae separatae et Angeli Christum in patria intellectuali cognitione non cognoscerent."

²² This seems to be the distinction Bolter [1982] 463 has in mind when he writes: "It was with Scotus, however, that a distinction between the knowledge of individuality and the knowledge of existent individuals was systematically developed." See also Giorgio Pini's contribution to this volume.

else.²³ Although Felix does have singular (individualized) forms, his singular essence is not a form—there is no form *Felixity* for the singular essence paralleling the form *felinity* for the specific essence. Instead, Felix has his singular essence in consequence of being an individual, that is, in consequence of having an ‘individual differentia’,²⁴ which is what makes Felix the very thing he is, namely Felix. Of course, Felix is an individual cat. But each and every cat is an individual cat, whereas only one cat is, or for Scotus could be, Felix. Yet the singular essence is not known by us in this life (*in met.* 7.13.158 and 7.15.20–30). His argument is simple and direct. Take two individuals α_1 and α_2 belonging to the same species; if they are sufficiently similar we cannot tell whether the one before us is α_1 or whether it is α_2 , something we could easily do if we were to grasp the individual differentia, for then we would know of any individual which one it is (*in met.* 7.13.158):²⁵

The individual differentia is generally not known by anyone in this life.

Proof: The difference between it and anything else would then be known, and so one could not be in error about anything else shown to oneself intellectually;²⁶ one would judge it to be something else. But this is false for something else wholly similar [to the original].

The individual differentia, a component of the singular essence, includes the identity of the individual it partially constitutes. If it cannot be grasped – and evidently it cannot, for if it could we should be infallible regarding the identity of things, and we manifestly are not – then the singular essence cannot be known: Scotus concludes “thus *we* cannot define the individual due to our incapacities, not due to anything on its side.” We do have a cognitive grasp

²³ See King [2005](b) for Scotus’s theory of singular essences.

²⁴ The individual differentia is often called the ‘haecceity’. But this is mistaken and misleading. It is mistaken because Scotus uses the term ‘*haecceitas*’ to pick out the individuality of the individual rather than the individual differentia (roughly the identity) of the individual – though the term is uncommon in Scotus’s writings. It is misleading because it suggests that the individual differentia is a form, and further that there is a generic kind to which all individual differentiae belong, each of which is incorrect. See further King [2005](b).

²⁵ “Differentia indiividualis a nullo nota est in hac uita communiter. Cuius probatio est: quia tunc nota esset differentia eius ad quodcumque aliud, et ita non posset errare de quocumque alio sibi intellectualiter ostenso quin iudicaret illud esse aliud. Sed hoc est falsum de alio omnino simili. . .” See also *in met.* 7.15.20, where Scotus further argues that we could not tell if two sufficiently similar patches of white were superimposed.

²⁶ The phrase ‘shown to oneself intellectually’ is meant to rule out incapacities or limitations stemming from the senses or the process of sense-cognition; it is an oblique reference to intellectual intuitive cognition.

of individuals, of course; that is the point of the doctrine of intellectual intuitive cognition. But we do not grasp an individual *as* the very individual it is: Socrates has a cognitive grasp of Felix, but not of Felix *qua* Felix. Our powers of intellectual discrimination can reach to individuals, but not to which individuals they are – that is, not to identifying them.

Therefore, when Socrates has an intellectual intuitive cognition of Felix, the content of his (singular) thought is *an individual cat*. To be sure, the cat occasioning Socrates's thought may be Felix. But even in that case Socrates's thought is only contingently a thought of Felix, not a *de re* thought of him, which would necessarily be about Felix no matter the identity of the cat (or the apparent cat-façade) before Socrates. Scotus endorses a clear and sharp distinction between singular thought and *de re* thought, admitting the possibility of the former and rejecting that of the latter.²⁷ Hence the content of Socrates's cognition depends on purely internal features, whereas its character depends on the world's being a certain way. External factors determine what a singular thought is indeed directed at, as a contingent matter. With Scotus, then, we have an explicit account of singular thought and *de re* thought, carefully distinguished. It is no wonder that the doctrine became a touchstone for subsequent discussion.

4. AND NOW FOR SOMETHING COMPLETELY DIFFERENT

William of Ockham identified what he took to be a fatal flaw in Scotus's account. According to Ockham, Scotus has made the same mistake as Aquinas: he hasn't specified any mechanism to explain how intellectual intuitive cognition is possible. Rather than explaining *how* singular thought happens, Scotus just asserts *that* it happens.

There is some justice in Ockham's charge, just as there is in William de la Mare's charge against Aquinas, though loyal partisans of each have rallied to defend their respective views. There is no consensus among Scotists about how to respond to Ockham's criticism, however. Put the challenge like this: For Scotus, does intellectual intuitive cognition require an intelligible species? No answer seems satisfactory. Suppose that it does require an intelligible species, in keeping with the way other intellectual activities are explained. The doctrine of intuitive cognition then seems less like a mere addition to the rest of psychology, conforming, at least in broad outlines, to

²⁷ Scotus may have thought that *de re* mental acts are possible but that they essentially involve the operation of the will rather than the intellect. It is the will, for example, that stretches forth and latches on to a designated individual, such as Christ (for we love Christ rather than an indistinguishable duplicate even if we cannot tell them apart).

the rest of the philosophy of mind. But then Scotus owes us a story about the mechanism at work – how it is we can somehow acquire an individual concept from an individual without being able to grasp the individual differentia. Suppose, instead, that intellectual intuitive cognition does not require an intelligible species. Then Ockham’s criticism that there is no mechanism seems well-founded. Worse yet, Scotus seems to have mixed together psychological phenomena explicable by describing a quasi-causal mechanism that bring them about with psychological events that just happen. In contemporary terms, Scotus has proposed an uneasy hybrid of representationalism with direct realism, an account that is neither fish nor fowl.

Ockham draws a surprising moral. From Scotus’s omission of a psychological mechanism underpinning the doctrine of intuitive and abstractive cognition, Ockham concludes that none is really needed – that the project of explaining psychological phenomena by the causal interaction of subpersonal mechanisms is misguided. Hence he rejects such appeals. Rather than endorse a hybrid, Ockham dispenses with the remnants of the neo-Aristotelian synthesis, adopting in its stead a radical externalism with as little ‘mentalistic’ psychology as possible. In its place he puts forward direct realism and an account of acquired competencies, as follows.²⁸

On one reading of Scotus’s doctrine of intuitive and abstractive cognition, as noted, these kinds of cognitive acts “just happen.” They are produced by causal interaction with the world, to be sure, but this fact does not require a reductive explanation; Ockham elevates this into a general principle (*rep.* 2 qq. 12–13):²⁹

Given a sufficient agent and patient in proximity to each other, the effect can be postulated without anything further.

Applied to ordinary cases of cognition, this means that we can dispense with the complex details of subpersonal agents. Now Ockham holds that acts of singular intuitive cognition are the building-blocks of mental life. On his view, a sensory intuitive cognition occurs when in the presence of an object, and, together with the object, cause an intellectual intuitive cognition of that same object; after repeated exposure, the mind is caused to have an abstractive general concept of that kind of object.³⁰ Along the way, habits are created,

²⁸ See King [2004], King [2005](a), and King [2005](c) for a more complete discussion of Ockham’s radical revolution in philosophy of psychology. Here I only sketch the details necessary for the account of singular thought and *de re* thought.

²⁹ “Posito activo sufficienti et passivo in ipsis approximatis, potest poni effectus sine omni alio” (OTH 5 268).

³⁰ See *ord.* Prologue q. 1 art. 1 and q. 12 (OTH116–47 and 355–356 respectively); *rep.* 2 qq. 12–13 (OTH 5 261–263); *exp. phys.* 1.1.2 (OPh 4 25–26); *sum. log.* 3-2.10

which account for overt acts of memory as well the dispositional abilities that make up the concept of the object. Thus in the presence of Felix, Socrates has an intuitive cognition of Felix, which in its turn causes an abstractive cognition of Felix. Nothing more needs to be said about how this happens, other than to point to the “proximity” of Socrates and Felix. To the objection that this requires a material agent (Felix) to cause an effect in an immaterial patient (Socrates’s intellect) – a suggestion other philosophers rejected; Durand of St.-Pourçain calls it “absurd” – Ockham simply asserts that it is indeed possible, and leaves it at that. What is more, since there is no need to postulate sub-personal psychological mechanisms, there is equally no need to postulate any intermediary representations; Ockham therefore rejects both sensible and intelligible species, on the grounds that any job they might have performed can be accounted for adequately by postulating complexes of competencies (*habitus*).³¹ Nor, for that matter, are there large-scale distinctions among the ‘parts’ of the soul (*ord.* 1 d. 3 q. 6):³²

The agent intellect isn’t distinct from the possible intellect at all; instead, one and the same intellect is denominated in different ways.

The packages of interrelated abilities with which Ockham replaces the neo-Aristotelian synthesis are capable of being articulated in a logical structure: one ability may presuppose another, or require further abilities for its exercise. Yet there isn’t anything ‘in the head’ about such sets of skills. They should be thought of as skills possessed by the whole person rather than inner mental episodes.

and 3-2.29. Ockham further sketches the foundational role of intuitive cognition in his *exp. isag.* 2.11 (OPh 2 45). In *quaest. uar.* q. 5, Ockham suggests that even a single sensory intuitive cognition might be enough to cause the associated abstractive general concept, though he denies this in *quodl.* 1.13. The ‘mentalism’ of Mental Language seems to be no more than a way of talking about the mind in terms of linguistic competence, despite Ockham’s occasional nods in the direction of compositionality.

³¹ Ockham’s classic statement of this thesis is in the first conclusion of *rep.* 2 qq. 12–13 (OTh 5 268). Similar arguments are found in *ord.* 1 d. 2 q. 8 and d. 27 q. 2, as well as in his *exp. isag.* 2 and *exp. per.* preface. In *rep.* 2 qq. 12–13, Ockham lists the functions typically played by the intelligible species: to inform the intellect, to unite the object with the potency, to determine the potency to the kind of act, to cause the act of understanding, to represent the object, and to account for the unity of mover and moved. In each case Ockham argues that the function is either unnecessary or can be accomplished by an acquired skill (*habitus*); see Spruit [1994]. He holds the same thesis in the case of the sensible species: see Tachau [1988] 130–148.

³² “Intellectus agens nullo modo distinguitur ab intellectu possibili sed idem intellectus habet diversas denominationes” (OTh 2 520).

So too for intuitive cognition. For Ockham, the content of these mental acts is not an ‘internal’ feature of the mind. Instead, it is determined by the external world, in particular by the very item that *caused* the intuitive cognition. In contemporary terms: Ockham is a (strong) externalist with regard to singular thought.³³ Socrates’s thought of Felix is of Felix precisely because it was caused by Felix rather than anything else.

Like Scotus, Ockham is impressed by the fact that we cannot tell the difference between two extremely similar objects, be they patches of white, amounts of heat, human beings, or anything else.³⁴ Scotus drew the conclusion that singular thought only extends to the individual, not to its identity; *de re* thought is beyond our powers in this life. Ockham, by contrast, concludes from such examples that “likeness is not the precise reason why we think of one thing rather than another.”³⁵ Instead, he has recourse to a feature of causality, namely that “it’s part of the very notion of an impression that it be caused by that of which it is the impression” (*ord.* 1 d. 3 q. 9 OTh 2 547). A likeness need not be fashioned from the original, whereas an impression must be. More exactly, Ockham holds that it is the nature of an impression to be producible by a given individual rather than another, *i. e.* that it is apt to be so produced even were God to supplant the causal chain. He states his view succinctly in *quodl.* 1.13 (OTh 9 76).³⁶

Intuitive cognition is a proper cognition of a singular not because of its greater likeness to one than to another, but because it is naturally caused by the one and not by the other; nor can it be caused by the other. If you object that it can be caused by God alone, I reply that the following is true: Such a sight is always apt to be caused by one created object and not by another; and if it were caused naturally, it is caused by the one and not by the other, and it is not able to be caused by the other.

³³ See also Panaccio [2005] 12–14. Susan Brower-Toland has challenged the thesis that Ockham is a radical externalist, particularly with respect to the counterfactual criterion given here, in her very interesting paper “Ockham, Intuition, Externalism, and Direct Reference.”

³⁴ *rep.* 2 qq. 12–13: patches of white, OTh 5 281–282; amounts of heat, 287; humans, 304.

³⁵ “Similitudo non est causa praecisa quare intelligit unum et non aliud,” *ibid.* (OTh 5 287).

³⁶ “Dico quod intuitiva est propria cognitio singularis, non propter maiorem assimilationem uni quam alteri, sed quia naturaliter ab uno et non ab altero causatur, nec potest ab altero causari. Si dicis, potest causari a solo Deo: uerum est, sed semper nata est talis uisio 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.”

He reiterates the point, alluding to the same case, in *rep.* 2 qq. 12–13 (OTh 5 289):³⁷

Suppose you were to object that a given concept can be immediately and totally caused by God, and so through that given concept the intellect would no more understand one singular than another extremely similar one, since it would be as much similar to one as to the other; nor does causality make it be of one and not of the other, since it is caused by neither but rather immediately by God. I reply that any given concept of a creature that is caused by God can be partially³⁸ caused by the creature, even if it weren't actually so caused. Hence a given singular is cognized through that cognition by which it would be determinately caused were it caused by a creature; this is a feature of one thing and not of another; therefore, *etc.*

A mental act that occurs as the result of an object's causal activity counts as an 'impression' in Ockham's sense, so that Socrates's intuitive cognition of Felix, as an impression, is a (singular) thought *of* Felix – at least, so long as it 'co-varies' with Felix: present in Felix's presence and absent in his absence. Ockham's view, then, is that the intuitive cognition of Felix is a thought of Felix for the precise reason that it is the thought that Felix naturally causes us to have.³⁹ This is externalism: what a given act of thinking is about depends solely on its cause, which is a matter of the external world rather than any 'internal' mental feature.

Ockham's externalism led him to reject Scotus's sharp distinction between singular thought and *de re* thought. For Ockham, singular thought is necessarily *de re*. That's because what an act of thinking is about is a matter of what causes it, and, as we have just seen, the intuitive cognition of Felix

³⁷ "Si dicas quod illa intentio potest immediate causari totaliter a Deo; et tunc per illam intentionem non plus intelligeret intellectus unum singulare simillimum quam aliud, quia tantum assimilatur uni sicut alteri. Nec causalitas facit ad intentionem unius et non alterius, quia a nullo causatur sed a solo Deo immediate. Respondeo: quaelibet intentio creaturae causata a Deo potest a creatura causari partialiter*, licet non causetur de facto. Et ideo per illam intentionem cognoscitur illud singulare a quo determinate causaretur si causaretur a creatura; huiusmodi autem est unum singulare et non aliud, igitur etc." [* Perhaps emend to *naturaliter*.]

³⁸ Ockham says 'partially' because he holds that God is a necessary co-cause of any effect.

³⁹ The proviso 'naturally' is important. As Ockham notes, God could supplant the ordinary causal chain. But what matters is what happens in the ordinary course of events, not what might occur due to miraculous intervention. Technically, then, Ockham endorses a counterfactual causal account of singular thought. But for most purposes we can put its counterfactual nature aside.

is necessarily caused by Felix and not by anything else (barring divine interference). Put another way, the singular term ‘Felix’ is a rigid designator in Mental Language.⁴⁰ Socrates cannot have an intuitive cognition of Felix that fails to latch on to Felix, by definition. Scotus’s notion of singular thought, that grasps an individual without its identity, is for Ockham an abstractive rather than an intuitive cognition. The upshot is that Ockham gives pride of place to *de re* singular thought as the foundation of his new psychology of ‘habits’, designed as the successor to the preceding psychological theories.

CONCLUSION

With Ockham, we have come full circle from Aquinas: an ideal of psychological explanation by the interaction of subpersonal internal mental mechanisms, fundamentally a representationalist account of the mind, has given way to a radical externalist account that eschews mental processes as far as possible, fundamentally a direct realist account. The central issue in the evolution of positions is singular thought – the apparently simple process of thinking about things. Not that the evolution was uniform and unidirectional, any more here than in the case of natural history: defenders of the neo-Aristotelian synthesis continued to push their agenda cheek-by-jowl with Scotists defending a hybrid account and Ockhamists trying to change the basic terms of the debate, each group playing up the advantages of its position while downplaying the others. Yet the issue of singular thought is the key to understanding the conceptual heart of the debates in mediæval philosophy of psychology, and by concentrating on it the main lines of the debates stand out clearly from what otherwise appears to be a disorderly welter of texts.

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⁴⁰ Hence it permits quantification across opaque contexts: “Socrates thinks that Felix is on the mat” and “Socrates thinks of Felix that he is on the mat” are equivalent if ‘Felix’ is a rigid designator, despite the fact that the former is *de dicto* and the latter *de re*. It is straightforward to apply this to belief-contexts, though Ockham, unlike Buridan, seems not to have done so.

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