

# Abstraction and Intellection of Essences in the Latin Tradition

Ana María Mora-Márquez

## 1 Introduction: The Medieval Integration Challenge for Intellection

The aim of this chapter is to present three medieval accounts of concept formation that emerge in the context of commentaries on the relevant passages in Aristotle's corpus.<sup>1</sup> The chapter focuses especially on two distinct operations that are crucial to concept formation in the post-Alexandrian Aristotelian tradition, namely, abstraction and intellection.<sup>2</sup> I will also use a slightly modified version of a recent philosophical test – the integration challenge – as a tool to reveal the complex interaction of metaphysics of the mind and cognitive psychology in the medieval accounts under discussion.

Many medieval authors<sup>3</sup> included a causal link between material things and sensory organs in their explanation of perception.<sup>4</sup> Take, for instance, the case of vision. The standard account would go like this: under the action of light, a thing's colour produces a species of itself in a medium, the transparent; the species reproduces itself until it reaches the organ of vision, the eye, where it causes the vision of the colour.<sup>5</sup> Regarding the cognition of essences, however, there is not an all-encompassing or standard medieval account, for even within the same tradition (for instance, the tradition of thirteenth-century Parisian commentaries on Aristotle's *De anima*) there are substantial differences from

1 For the continuation of this medieval tradition in the 14th century, see chapter six below. For the relevant passages in Aristotle, see the introduction to this volume, sections one and two.

2 For details of the Aristotelian tradition in late antiquity, see chapter one.

3 I here discuss medieval authors working at an already-established medieval university in the thirteenth century. Scotism, Ockhamism, and Buridanism dramatically change the medieval landscape, but I will not consider that part of the medieval tradition in this chapter.

4 Some exceptions are Robert Kilwardby and Peter John Olivi; for their views, see José Filipe Silva, *Robert Kilwardby on the Human Soul: Plurality of Forms and Censorship in the 13th Century* (Leiden: Brill, 2012); and Juhana Toivanen, *Perception and the Internal Senses: Peter John Olivi on the Cognitive Functions of the Sensitive Soul* (Leiden: Brill, 2013).

5 See, e.g., the account in Albert the Great, *De anima*, ed. C. Stroick (Münster: Aschendorff, 1968), l. 2, tr. 3, cap. 8, 108–10.

one author to another. In fact, in the cognition of essences the reliance on a causal link is problematic because external things are material and the intellect and its acts are immaterial, and most authors from the period would argue that the material cannot act on the immaterial. I submit that the metaphysical incompatibility between the immaterial intellect and the material world brings about a medieval case of today's 'Integration Challenge.'<sup>6</sup>

The Integration Challenge is the challenge that some contemporary epistemologies face because they are either incompatible with the metaphysics that underpin them or non-explanatory altogether in that they contain an explanatory gap. For instance, they may posit a cognitive mechanism, say, intuition of abstract facts, but fail to provide a plausible link between intuition and abstract facts.<sup>7</sup> The typical example of an integration challenge is the dilemma put forward by Paul Benacerraf regarding an epistemology of mathematical facts based on causal cognition and mathematical Platonism. There is, according to Benacerraf, a plain and significant inconsistency between a metaphysics of mind-independent, causally inert, and abstract mathematical facts and an epistemology based on causation.<sup>8</sup> The Integration Challenge was later generalised by Christopher Peacocke, who describes it as: "[...] the general task of providing, for a given area, a simultaneously acceptable metaphysics and epistemology, and showing them to be so."<sup>9</sup> So, not only the epistemology and the metaphysics must be compatible, but one must also show *that* they are compatible by means of a plausible and positive link. A particular case today is the epistemology of essences, which some scholars place under the area of modal epistemology.<sup>10</sup>

6 The challenge started to gain notoriety since it was formulated in Christopher Peacocke, *Being Known* (Oxford: Clarendon Press, 1999).

7 For an account of intuition of abstracta that attempts to meet the integration challenge, see John Bengson, "Grasping the Third Realm," *Oxford Studies in Epistemology* 5 (2015): 12–38.

8 Paul Benacerraf, "Mathematical Truth," *Journal of Philosophy* 70 (1973): 661–79.

9 Peacocke, *Being Known*, 1. See also Sonia Roca-Royes, "Modal Epistemology, Modal Concepts and the Integration Challenge," *Dialectica* 64 (2010): 335–61; and Ylwa Sjölin Wirling, *Modal Empiricism Made Difficult: An Essay in the Meta-Epistemology of Modality* (Gothenburg: Acta universitatis Gothoburgensis, 2019), 27–66.

10 Followers of the Kripke-Putnam tradition take the epistemology of essences to be a special case of modal epistemology, but not everybody does. Fine and Lowe, for instance, take an opposing view. See Tuomas Tahko, "The Epistemology of Essence," in *Ontology, Modality, Mind: Themes from the Metaphysics of E. J. Lowe*, ed. A. Carruth, S. C. Gibb, and J. Heil (Oxford: Oxford University Press, 2018), 93–110. For the integration challenge in modal epistemology, see Roca-Royes, "Modal Epistemology," 335–61.

Essences are, in fact, at the centre of the medieval discussions with which this chapter is concerned. The medieval epistemology of essences is fundamentally based on what medieval scholars called the first act of the intellect, that is, the intellectual apprehension of essences, or 'intellection.' I propose we understand the various accounts of intellection found in some medieval commentaries on Aristotle's *De anima* as different ways to go about solving 'The Medieval Integration Challenge for Intellection.' Medieval accounts of intellection are mostly concerned with the intellectual apprehension of the essence *human*, which among the followers of the Aristotelian tradition is normally understood as the unitary form that makes some concrete thing be a human. In other words, a material essence is not just a bundle of essential properties, but rather the mind-independent formal unity  $x$  that makes some material thing be an instantiation of  $x$ . The medieval challenge consists in accounting for intellection in terms that are positively explanatory and compatible with a given metaphysics of essences so as to make intellection a good basis for knowledge about them. For instance, a suitable account of intellection will make the intellection of the human essence a good basis for the truth of, say, the thought that humans are animals in that it will provide a criterion to demarcate knowledge of this truth from cases of epistemic luck.

I take it as uncontroversial that the medieval authors here considered take essences to be mind-independent (they are all realists about essences) and immaterial (essences are forms as opposed to matter). While I will refer to 'material' essences, I do not mean that the essences themselves are material but rather that they are forms of material things. For the authors considered in this chapter, material essences are causally inert as regards intellection. There is a minimal sense in which material essences have causal power though: they are forms, and hence are also formal causes. However, they cannot by themselves act efficiently *upon the intellect* – they cannot by themselves be what sets intellection in motion. Moreover, for the Aristotelian scholars here considered, intellection is understood as a sort of affection. A conundrum clearly emerges: How is the causally inefficacious material essence related to passive intellection so as to make the latter a good basis for non-accidental knowledge about that essence? The Medieval Integration Challenge for Intellection (henceforth MICI) can, then, be formulated as follows:

MICI: The challenge of accounting for intellection by means of a (a) non-cognitive/non-epistemic, (b) plausible, and (c) positive link between intellection and essence, which (d) makes intellection a good basis for non-accidental knowledge about essences.

The link needs to meet the conditions (a) to (d) for the account to be explanatory as regards an epistemology of essences, that is, as regards the possibility of accounting for knowledge about essences. The link must be (a) non-cognitive/non-epistemic so that the challenge is not pushed to another cognitive/epistemic relation for which one would need to solve the challenge again. It must be (b) plausible, that is, able to obtain between essences and intellection (for instance, causation is an implausible link if one takes essences not to act causally upon the intellect). It must be (c) positive,<sup>11</sup> that is, it is not enough to show that essences and the intellect are not incompatible, as this would still leave an explanatory gap in the account as regards (d). Finally, (d) it must make intellection a good basis for non-accidental knowledge in that it must provide a criterion, based on the intellection of an essence  $x$ , for demarcating accidental knowledge that  $x$  is  $p$  from non-accidental knowledge that  $x$  is  $p$ .

For the sake of brevity, I will analyse the accounts of intellection in commentaries on Aristotle's *De anima* by thirteenth-century scholars. I will focus here on three scholars, belonging to the Parisian tradition of commentaries on the *De anima*, who are representative of three notoriously different accounts of intellection: Albert the Great, Siger of Brabant, and Radulphus Brito.<sup>12</sup> I will try to determine how each scholar deals with MICI. My aim is not so much to assess the philosophical quality of their accounts of intellection, but rather to make the subtle but significant differences between them stand out. Before I turn to the accounts in question, I will provide some background information about the relevant passages from Aristotle's *De anima* and some psychological tenets these authors all accept.

## 2 Aristotle's *De anima*

Aristotle begins *De anima* 3.4<sup>13</sup> by outlining his agenda for the following parts (chapters 4–8) of his enquiry on the soul, where he raises the question concerning the intellectual part of the soul (*ho noûs*) and its operation, intellection (*tò*

11 For 'positive,' see Sjölin Wirling, *Modal Empiricism*, 36–50.

12 These three authors can be considered medieval proponents of the concept empiricism studied in chapter seven below, although it is questionable whether Albert the Great's commitment to innate first principles threatens his consideration of as a concept empiricist.

13 I will explain Aristotle's account only briefly; a more detailed description can be found in the introduction to this volume, section one.

*noeîn*).<sup>14</sup> He goes on to introduce a set of features that this part of the soul must have in order for intellection to come about. First, the intellect must be unaffected (*apathés*) yet susceptible of forms (*dektikòn tou̐ eidous*). Second, it must be unmixed (*amigés*). Third, since its cognitive capacity is universal – it can understand all that is – the intellect must be undetermined, having no other nature than to be potential (*mēd'autoû ênai phýsin mēdemían all'ê taútēn, hōti dynatón*). Finally, it must be disconnected from the body, that is, it must be separate (*chōristós*).<sup>15</sup>

At the end of chapter 4, Aristotle returns to the first feature, unaffectedness, and anticipates an objection to the paradoxical character of the intellect as both unaffected and susceptible of forms: how can intellection be a sort of affection if at the same time the intellect is unaffected?<sup>16</sup> Moreover, how can the intellect be affected if it has no formal determination at all? In fact, as Aristotle himself points out, the explanatory model of action/affection demands that the agent and the patient be of some common nature, that is, the agent and the patient must be of the same genus.<sup>17</sup> The intellect, however, has no determination at all, hence no possibility to be affected by an external agent.

In order to explain how the action/affection model applies to intellection, Aristotle recalls in *De anima* 3.5 that every natural entity involves something material and something productive. He goes on to tell us that something analogous must occur in the case of the soul.<sup>18</sup> Accordingly, he introduces a division of the intellect into “the one that becomes all things” and “the one that produces all things,”<sup>19</sup> without being explicit about the sort of division he has in mind. Aristotle also seemingly suggests that it is the latter (*hoûtos ho noûs*) which is separate, unmixed and unaffected,<sup>20</sup> and closes the chapter by claiming that only the productive intellect is imperishable and eternal, in opposition to the material intellect, which is perishable.<sup>21</sup>

14 *De An.* 3.4, 429a10–13. Some lines below Aristotle describes the intellect as that whereby the soul thinks and understands; see *de An.* 3.4, 429a23. For a detailed analysis of *de An.* 3.4, see Pavel Gregoric and Christian Pfeiffer, “Grasping Aristotle’s Intellect,” *Documenti e studi sulla tradizione filosofica medievale* 26 (2015): 13–31.

15 *De An.* 3.4, 429a15–b5.

16 *De An.* 3.4, 429b22–25.

17 *GC* 1.7, 323b29–324a24.

18 *De An.* 3.5, 430a10–12.

19 *De An.* 3.5, 430a14–15.

20 *De An.* 3.5, 430a17–18.

21 *De An.* 3.5, 430a22–25. For recent interpretations of Aristotle’s *De anima* 3.5, see Victor Caston, “Aristotle’s Two Intellects: A Modest Proposal,” *Phronesis* 44:3 (1999): 199–227; Eli Diamond, “Aristotle’s Appropriation of Plato’s Sun Analogy in *De anima*,” *Apeiron* 47:3

Confronted with this chain of perplexing claims about the intellect and intellection, any commentator on the *De anima* feels compelled to solve the puzzles raised by Aristotle's qualification of the intellect as unaffected and yet susceptible of forms, as well as those raised by its further division into a material part and a productive part.

### 3 General Features of Medieval (Aristotelian) Theories of the Soul

Following in Aristotle's footsteps, the authors here considered viewed the human soul as what makes some properly organised material body be an actual human being. The human soul has three faculties, vegetative, sensitive, and intellectual. The last two of these are cognitive and apprehensive; this is to say that the proper function of the sensitive and the intellectual faculties is the cognitive apprehension of an object. Further, two of these faculties, the vegetative and the sensitive, use bodily organs in order to perform their operations. The vegetative faculty includes the powers that account for physiological functions of the human body such as nutrition, growth, and reproduction. The sensitive faculty, in turn, accounts for the cognitive powers related to the apprehension of particular material things. It includes powers of apprehending things that are present and no longer present, the external and internal senses.<sup>22</sup>

The intellectual faculty provides us with the best evidence of our special place in the hierarchy of natural beings, for its operations are performed without the immediate use of bodily organs.<sup>23</sup> Following in the footsteps of the Arabic tradition, some authors (e.g., Albert the Great) divide the intellectual faculty into four intellects: the possible intellect (*intellectus possibilis*), the agent intellect (*intellectus agens*), the theoretical intellect (*intellectus*

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(2014): 356–89; and Michael White, “The Problem of Aristotle's ‘Nous Poiêtikos,’” *The Review of Metaphysics* 57:4 (2004): 725–39. See also chapter one in this volume.

22 See, e.g.: “Potentiae igitur apprehensivae generaliter potentiae sunt passivae nec habent principia agendi nisi per formam, quam per apprehensionem acquirunt; propter quod etiam apprehensivae dicuntur [...]. Et earum quaedam sunt apprehensivae, deforis existentibus suis agentibus, quaedam autem sunt apprehensivae ita, quod sua agentia proxima sunt intus. Et illae quae habent sua agentia deforis sunt sensus [...] de his autem quae sunt apprehensivae deintus, nunc determinabimus.” (Albert the Great, *De anima* 3.1.1, 166.)

23 See, e.g.: “[...] ex maxima sua potestate separata est et nullo modo iuncta et umbrata per materiam corporis. Licet autem sic dicamus intellectum esse separatum, tamen anima est coniuncta per alias virtutes suas, quae sunt naturales sibi, in quantum est perfectio corporis [...]” (Albert the Great, *De anima* 3.2.12, 193.)

*speculativus*), and the acquired intellect (*intellectus adeptus*). Despite the misleading substantivisation that these expressions involve, they all refer to either powers (the possible and the agent intellects) or cognitive states (the theoretical and the acquired intellects) of the intellectual soul: the possible intellect is an apprehending passive power and the agent intellect is a productive active power. The theoretical intellect is the intellect as actually apprehending. Finally, the acquired intellect is the intellect that has reached its greatest level of perfection.

#### 4 Albert the Great

Albert the Great was undoubtedly one of the most influential and prolific scholars of the thirteenth-century.<sup>24</sup> His historical importance notwithstanding, many aspects of his work are still not sufficiently studied. In particular, his account of intellection has been somewhat neglected.<sup>25</sup> My aim here is to show that, in his interpretation of *De anima* 3.4–5, Albert puts forward a hybrid epistemology that seeks to meet MICI on the basis of a relation of determination. He presents this relation somewhat vaguely, but I will attempt to characterise it more precisely.

For Albert, the human intellect does not have a determined form: it is not something that, like a molecule of water or a cactus, is determined by a form whereby it belongs to a certain kind. This is because the intellect could not understand all that is (for instance, apprehend the form of a cactus and a cedar, of water and fire, and so forth) if it had a determined form:

If it were indeed informed by some form so as to be something determined [...] this would prevent the cognition of everything [...] because it could not receive what is contrary and what is different because of that form, because the diverse and the contrary cannot be in the same thing

<sup>24</sup> For Albert's life and works, see James Weisheipl, "Life and Work of St Albert the Great," in *Albertus Magnus and the Sciences: Commemorative Essays*, ed. J. Weisheipl (Toronto: Pontifical Institute of Mediaeval Studies, 1980), 13–51. For Albert's metaphysics and anthropology, see the articles in Irven M. Resnick, ed., *A Companion to Albert the Great: Theology, Philosophy and the Sciences* (Leiden: Brill, 2013), part 2; and Alain de Libera, *Métaphysique et noétique: Albert le Grand* (Paris: Vrin, 2005).

<sup>25</sup> The most exhaustive analyses are found in Alain de Libera, *Albert le Grand et la philosophie* (Paris: Vrin, 1990), esp. 215–66; de Libera, *Métaphysique et noétique*, 265–328.

[...] hence if it were some mixed form it would be prevented from potentially understanding all material things.<sup>26</sup>

Thus, the intellect is undetermined: “[...] the possible intellect is not a nature made specific by a form [...] just as prime matter is not made specific by a form [...] but its nature is to be only potential [...]”<sup>27</sup> And hence, it is unaffected:

[...] the possible intellect is [...] totally unmixed, because it is none of the forms it receives, which are either forms of bodies or forms that, although not forms of a body, are organic forms in a body, and hence it is not passible and transmutable, because only what is mixed is passible and transmutable.<sup>28</sup>

The intellect’s unaffectedness follows from its indeterminacy, because affection implies a change of form, which, in turn, implies having a form.<sup>29</sup>

Thereafter, Albert raises a series of problems related to these features of the intellect, including the following problem: if we are to explain intellection as an affection, how can the intellect remain unaffected during the intellection of an essence? In other words, he comes upon *MICI*. Albert sets out to account for intellection by means of a relation of determination in a way that preserves the intellect’s unaffectedness and the inefficacy of essences upon the intellect.

Intellection is the cognitive apprehension of an essence by the receptive power of the intellect, in particular the possible intellect. Otherwise put, intellection is the actualisation of the receptive power of the intellect in a process that involves a material essence (the particular way in which the material essence is involved will be discussed in a moment). The material essence, in

26 “Si enim esset aliqua forma informatus ad hoc quod esset hoc aliquid, tunc hoc ipsum [...] impediret cognitionem omnis rei [...] quia contrarium et diversum ab illa forma recipi in eo non posset, eo quod nec contraria nec disparata possunt esse in eodem [...] et ideo, si esset aliqua forma mixta, impediretur, ne potentia intelligeret omnia materialia.” (Albert the Great, *De anima* 3.2.2, 178–79.)

27 “[...] intellectus possibilis non est natura aliqua specificata per formam [...] sicut nec prima materia specificata est per aliquam formam, sed ad hoc tantum est natura eius posita potentialis [...]” (Albert the Great, *De anima* 3.2.2, 179.)

28 “[...] intellectus possibilis est [...] immixtus omnino, eo quod nulla est formarum, quae recipiuntur in ipso, quae sunt aut formae corporum aut formae, quae, licet non sint corporum, tamen sunt organicae in corpore. Et per hoc concluditur ulterius quod non est passibilis nec transmutabilis, quia nihil est passibile et transmutabile nisi mixtum.” (Albert the Great, *De anima* 3.2.2, 179.)

29 Cf. *Ph.* 1.7, 191a6–7.



turn, is potentially abstract and hence potentially intelligible, first, in the material things where it exists as concrete, and second, with respect to intellection inasmuch as it is not yet actually intelligible:

[...] the theoretical intellect, which is a form considered in the possible intellect, is potential in two ways: one way is in the comparison of what is apprehended to the particular in which it is only potentially, because the particular has the universal in it only potentially [...]. Another way is in the comparison [of what is apprehended] to the possible intellect, in which the universal is when actually apprehended [...].<sup>30</sup>

The material essence must, then, be actualised in both respects, that is, as abstract and as intelligible. For to be abstract and to be intelligible are not the same: to be abstract is a property of the essence in relation to material substrates, while to be intelligible is its property in relation to the intellect. However, the latter is grounded in the former, so that actualising the essence as abstract also actualises it as intelligible. The receptive power of the intellect is also potential in the sense that it can by itself neither bring about the actual intelligibility of the essence nor lead itself to the intellection of it.

In relation to the essence, Albert characterises intellection as a ‘determination’ of the receptive power, which as such is undetermined but capable of determination by something of a determined form:

When the universal is joined to the possible intellect under the light of the agent intellect, it is not joined to it as to an organ, as in the case of sensible forms, but as what determines is joined to what is determined, because the connatural state of the possible intellect [...] is of the same nature as the intelligible object insofar as it is intelligible. But the intellectuality of the possible intellect is confused and undetermined, and it is determined just as a potency by an act and just as what is undetermined is perfected by what is determined [...].<sup>31</sup>

30 “[...] intellectus speculativus, qui est forma speculata in intellectu possibili, in duplici est potentia. Quarum una est secundum comparisonem eius quod intelligitur, ad particulare, in quo ipsum non est nisi in potentia, quia particulare non nisi secundum potentiam habet in se universale [...]. Alio autem modo in potentia est secundum comparisonem ad intellectum possibilem, in quo est universale in actu intellectum [...].” (Albert the Great, *De anima* 3.2.12, 194.)

31 “Et quando sub luce istius intellectus unitur universale intellectui possibili, non unitur ei sicut organo, sicut fit in formis sensibilibus, sed unitur ei sicut determinans unitur determinato, quia habitus connaturalis intellectui possibili, qui est intellectualitas ipsa

Determination by the essence involves, then, an actualisation of the intellect. Now, how can the intellect be actualised and yet unaffected? Moreover, is the intellect actualised by the essence itself?

Albert's analysis of intellection as a sort of affection sheds some light on the former question. There are two kinds of passive potency: one that underpins simple reception and one that underpins reception and alteration. The passive potency of matter is of the latter kind: by being potential with respect to diverse forms and pairs of contraries, matter is subject to alteration insofar as it can become and cease to be something, or go from being one member of a pair of contraries to be the other one, for instance, from being cold to being hot.<sup>32</sup> Hence, matter is first a subject of alteration, in the process of receiving and/or losing forms, and then a subject of reception, when the process of alteration is fully achieved. The passive potency of the possible intellect, by contrast, is of the former kind: the intellect is not a subject of alteration but only of reception without alteration. Thus, the possible intellect is passive only equivocally: "Thus, it is perfectly evident how the possible intellect differs from prime matter and that 'affection,' 'reception,' 'potency,' and such terms are said equivocally of the possible intellect and of the other receptive potencies."<sup>33</sup> And the intellect's being a 'subject of reception' is said only in an improper sense, because it 'receives' forms, but not as in a subject, as matter does:

[...] the species of things are joined to the soul as what is received is joined to what receives, even though this unity is really neither the one of subject and accident nor the one of matter and form. But with 'subject' taken broadly – that which somehow receives something else from which it does not obtain material being, but by which it is led to action with respect to a natural potency – the soul and the intentions that are in it are one subject.<sup>34</sup>

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[...] eiusdem naturae est cum intelligibilibus, inquantum sunt intelligibilia. Sed sua intellectualitas est confusa et indeterminata, determinatur autem sicut potentia per actum et sicut perficitur indeterminatum per determinatum [...]. (Albert the Great, *De anima* 3.2.12, 194.) Cf.: "Et ideo sic subicitur eis, sicut determinatum subicitur determinanti, et ideo non efficitur unum de intellectu possibili et intelligibili, sicut sunt unum materia et forma vel sicut subiectum et accidens, sed potius sicut perfectio determinans est in determinato et perfecto." (Ibid., 3.2.7, 186.)

32 Cf. *GC* 2.1, 329a24–35.

33 "Et per istud nunc perfecte patet, qualiter distinguitur intellectus possibilis a materia prima, et quod passio et receptio et potentia et omnia talia aequivoce dicuntur de intellectu possibili et aliis potentiis receptivis." (Albert the Great, *De anima* 3.2.17, 203.)

34 "Species enim rerum uniuntur animae, sicut receptum unitur recipienti, licet haec unitas neque sit proprie subiecti et accidentis neque materiae et formae. Large tamen accepto

Such is the sense in which the intellect is unaffected: although receptive in the sense of being actualised when determined by the essence during intellection, the intellect does not suffer alteration. It is, then, evident how the intellect's unaffectedness is dependent on its indeterminacy, for if it had any formal determination it would suffer alteration during intellection.

The determination by the abstract essence in intellection does not result in qualitative alteration, substantial or accidental, for during intellection the intellect does not acquire, substantially or accidentally, the form of its object:

[...] and hence the intelligible object does not become one with the possible intellect in the way that a subject and accident are one thing, because an accident is not a perfection of a subject; neither is there one thing as matter and form are one, because form perfects matter only as regards being and distinction and division, but the universal is non-distinct and undivided and does not perfect the intellect as regards being; rather, it is the principle of the cognition of things that exist; otherwise we should say that the intellect is a stone when it understands a stone [...].<sup>35</sup>

In other words, determination by the abstract essence is neither qualitative change nor formal instantiation: the intellect does not become wooden when it apprehends wood nor does it become wood. During intellection the intellect's power of apprehension becomes determined in the sense that it takes on a form – it becomes the intellection *of x*, where *x* is some essence. Just as buying an apple, bread, or a drink are different determinations of a coin's power to buy, in a similar way different essences are different determinations of intellection.

Albert does not say much about the relation of determination, but we can attempt to characterise it on the basis of his passages quoted above. Determination, as he understands it, is (1) non-causal in the sense that it does not produce something (vs. efficient causality and formal instantiation); and

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subiecto, quod subiectum dicatur id quod quocumque modo recipit aliud, a quo non habet esse materiale, sed quo perficitur ad agere secundum potentiam naturalem, quod anima et intentiones, quae sunt in ea, sunt unum subiectum.” (Albert the Great, *De anima* 3.3.12, 223.)

35 “[...] et ideo intelligibile cum intellectu possibili non fit unum, sicut subiectum et accidens sunt unum, quia accidens non est perfectio subiecti; nec etiam est unum sicut materia et forma est unum, quia forma non perficit materiam nisi secundum esse et distincta et divisa, universale autem est indistinctum et indivisum et non perficit ad esse, sed potius est principium cognitionis eorum quae sunt; alioquin oporteret nos dicere, quod intellectus esset lapis, quando intelligit lapidem [...].” (Albert the Great, *De anima* 3.2.12, 194.)

(2) asymmetric (for instance, intellection is determined by the essence but not the other way around). It is also (3) ontological: being determined by  $x$  is an ontological constituent of the intellection of  $x$ , a part of what it is for the intellection of  $x$  to exist.<sup>36</sup>

Albert's appeal to determination is also conservative (that is, it makes use of notions dialectically acceptable in his context) if we understand determination as akin to formal causation. Take, for instance, some apple. This apple is formally caused by the essence *apple*. The reason why this apple is a formal instantiation of *apple* is that *apple* has been received *in matter*. Also, *apple* is not the efficient cause of this apple; its efficient cause would rather be the apple tree. The relation of the essence *apple* to this apple, insofar as it is its formal cause, looks otherwise very much like Albert's relation of determination: it is not an efficient cause (at least not *per se*), it is asymmetric, and it is ontological. Moreover, to be determined (*determinatum*) means precisely to have some form, as we have seen above in Albert's discussion about the intellect's indeterminacy, and to be determining (*determinans*) is, accordingly, to give a form to something. Thus, it seems to me plausible to see determination as akin to formal causation.

That determination is asymmetric and ontological ensures that intellection is non-accidentally correct. Thus, Albert tells us:

[...] hence the intellection, which is a simple concept, concerns the essence of the thing and its substantial form, due to which something is some being [...] because everything that is something through a substantial form will be that something and has the being of the substance. And this intellection, which is intellection by itself and properly, is always true by the truth of the thing, insofar as we call true what is truly and has true entity.<sup>37</sup>

The essence determines intellection *as the essence is*. This ensures that there is a difference between (1) any intellection of  $x$  which is determined by  $x$ , and

36 In this sense, determination is akin to the relation of constitution which Bengson characterises in his paper and uses to account for the intuition of abstracta (Bengson, "Grasping the Third Realm," 16–20). Bengson qualifies his account as conservative (*ibid*, 34) because it is based on an already widely used and accepted notion of metaphysical constitution.

37 "[...] et ideo intellectus, *qui simplex conceptus est eius* quod est '*quid est res*' et formae substantialis, *qua aliquid erat esse* [...] quia per formam substantialem omne quod est aliquid, erit aliquid et substantialiter est. Et hic intellectus qui per se et proprie intellectus est, semper est *verus* veritate rei, secundum quod verum dicimus id quod vere est et veram habet entitatem." (Albert the Great, *De anima* 3.3.2, 210.)

(2) any intellection of  $x$  which is not so determined (think of some kind of intellectual hallucination of  $x$ ). This, in turn, explains why (1) is not accidentally correct with respect to  $x$ , for it involves a different relation of determination than that of the intellectual hallucination. Determination, then, seems to fit the bill in terms of *MICI*, as it is an asymmetric and ontological relation between intellection and the essence which provides a good explanatory basis for the realist epistemology of essences to which Albert is committed.

As we have seen, the intellect is unaffected in the sense that it is not altered so as to become  $x$  or so as to instantiate  $x$ , and yet it is receptive in the sense that it cannot lead itself to intellection. We have also seen that the essence is related to intellection through a relation of determination, which is non-causal except in the formal sense. Now, what is the efficient cause of intellection? In other words, what provokes or sets in motion intellection? Albert strongly suggests that the efficient cause of intellection is the agent intellect, even though intellection is diversified by the essence:

The theoretical intellect has double being: one in relation to the light of the agent [intellect], *by which the theoretical intellect is produced*; another in comparison with the things of which it is a species and with respect to which it is multiplied and diversified according to potency and act.<sup>38</sup>

If we understand abstraction in Albert as the intellectual recognition of an essence in the sensory representation,<sup>39</sup> we could say that abstraction is the efficient cause of intellection inasmuch as the recognition of that essence immediately provokes its apprehension. As we shall see in the following pages, according to Albert we are naturally equipped with some first principles that are instrumental to our capacity to single out the essence in the sensory representation.

In his commentary on the passage *De anima* 3.4, 429b10–22, Albert introduces a difference between (1) the act whereby we cognise, for instance, material things, which he calls reflexive intellection, and (2) the act, which we could call ‘simple intellection,’ whereby we cognise ‘simple’ things, among

38 “Speculativus autem etiam duplex habet esse, unum quidem in lumine agentis, *quo efficitur speculativus*, alterum autem ex comparatione rerum, quarum ipse est species, et quoad hoc multiplicatur et variatur secundum potentiam et actum.” (Albert the Great, *De anima* 3.2.19, 205; my italics.)

39 I assume that for all the authors analysed in the present chapter, the sensory representation accurately captures the material essence so that the epistemic connection between intellection and the material world is not threatened at the level of perception.

which we find the first principles. In the passage in question, Aristotle raises the question whether the soul discriminates (*krínei*) a thing and its essence with different faculties or with the same faculty differently disposed. His puzzling conclusion is that: “one distinguishes [them] with another faculty or with the same one differently disposed. And generally, then, just as things are separated from matter, so are the things concerning the intellect.”<sup>40</sup> Although in the Aristotelian passage it is not at all clear that what is at stake are different sorts of intellection, which are determined by and correspond to different sorts of object, this is the way in which Albert reads it. For he reads Aristotle’s conclusion in the following way: things that include a principle other than themselves in their essence determine reflexive intellection. Accordingly, turning to such a principle fundamentally constitutes the intellection of those things:

[...] hence, whenever the intellection of something includes something else, which is its principle, just as warm and cold, and humid and dry are the principles of flesh, and just as the continuous is the principle of the straight, as the subject is the principle of every proper feature, then it is necessary that the intellect first turn to the principle, either sensible, imaginable, or intelligible; and thereafter the intellect turns back to the intellection of that which it apprehends.<sup>41</sup>

Reflexive intellection seems to be an act in which during the intellection of its object the intellect necessarily has to turn to something else.<sup>42</sup> For instance, once someone has already acquired the concept of the human essence, she cannot reactivate that concept and actually cognise the human essence without turning at the same time to the sensory representation of some human. Thus, during the intellection of the human essence, the intellect must have

40 *De An.* 3.4, 429b20–22.

41 “[...] et ideo quandocumque intellectus alicuius est alterius quod est eius principium, sicut caro principiat a calido et frigido et umido et sicco, et rectum, quod principiat a continuo, sicut omnis propria passio principiat a suo subiecto: tunc oportet intellectum primo egredi ad principium, sive illud sit sensibile sive imaginabile sive etiam intelligibile, et tunc reflectitur ad intellectum eius quod intelligit.” (Albert the Great, *De anima* 3.2.16, 200.) Note that Albert extends the criterion so as to include also intelligible things with intelligible principles, which determine reflexive intellection. In this case, he says, the intellect goes from the intellection of *x*, to the intellection of *p* (its principle) and back to the intellection of *x*. Albert proposes the intellection of divine features as an example of this sort of reflexive intellection. See Albert the Great, *De anima* 3.2.16, 201.

42 “[...] et egressus quidem vocatur extensio, reflexio autem circumflexio vocatur, quia terminatur in intellectu, a quo incipit prima extensio.” (Albert the Great, *De anima* 3.2.16, 201.)

a material human, which is not an intelligible *per se*, in its consideration. In other words, we cannot think of the human essence without at the same time having some particular human in mind.

To the contrary, things that are principles do not determine reflexive intellection. According to Albert, such things are grasped with ‘a simple intelligence,’ which especially concerns the first principles. In the intellection of the first principles, Albert tells us, the intellect *stays in itself*, that is, it does not turn to something else: “But things that are completely separate, in the apprehension of which nothing is taken, such as the first principles, the intellect apprehends staying in itself; for it has in itself the first, most common principles [...]”<sup>43</sup> Simple intellection, then, concerns things that are themselves principles, and in particular the first principles (such as the principle of non-contradiction), the cognition of which, according to Albert, is innate.<sup>44</sup>

Some sections later, Albert relates these principles to the agent intellect, which uses them as instruments for abstraction:

[...] regarding the intellect of mortals, the agent intellect and the habitus of first principles, which we know by nature, [are] prior [...]. In fact, these principles are instruments, as it were, with which the agent leads the possible [intellect] from potency to act, and these instruments are determined by the determination of the objects of knowledge [...].<sup>45</sup>

It is not clear what the exact relation between the agent intellect and the innate cognition of the first principles is, but it is clear enough (1) that our cognition of the first principles is innate;<sup>46</sup> and (2) that the first principles play

43 “Sed separata omnino, in quorum intellectu nihil accipitur, sicut prima principia, intelligit intellectus stans in seipso; prima enim communissima principia habet apud seipsum [...]” (Albert the Great, *De anima* 3.2.16, 201.)

44 “Et haec est veritas principiorum primorum; quae veritas semper est apud intellectum, quia, sicut dicit Boethius in consolatione philosophiae, ‘communia retinet et singula perdit’, intendens per communia principia prima, sicut quod non contingit simul affirmare et negare et quod totum maius est sua parte et huiusmodi.” (Albert the Great, *Summa theologiae sive de mirabili scientia dei*, ed. D. Siedler et al. (Münster: Aschendorff, 1978), 1.6.25.3.1, 156.)

45 “[...] in intellectu mortalium etiam prior est intellectus agens et habitus primorum principiorum, quae scimus per naturam [...]. Haec enim principia sunt quasi instrumenta, quibus agens educit possibilem de potentia ad actum, et haec instrumenta determinantur ex determinatione scibilium [...]” (Albert the Great, *De anima* 3.3.2, 211.)

46 See, e.g.: “Ad secundum dicendum, quod dicta principia non sunt adeo communia sicut prima principia, quae sunt naturaliter cognita, sed sicut ea quae sunt propinqua principiis, ad quae potest haberi de facili via ex primis principiis.” (Albert the Great, *Super ethica*, ed. B. Geyer and W. Kübel (Münster: Aschendorff, 1968), 3.2, 146.)

a fundamental role in abstraction, the act of the agent intellect.<sup>47</sup> What Albert suggests here, then, is that our innate simple cognition of the first principles somehow allows us to recognise essences in sensory representations so that this recognition, which is the act of abstraction, immediately causes or provokes the intellectual apprehension of the essence, that is, intellection. Thus, the act of abstraction is what sets intellection in motion, and so the former is the efficient cause of the latter.

To sum up, Albert meets MICI by understanding intellection in terms of determination, which is a non-causal, asymmetric, and ontological relation between the essence and intellectual apprehension, and which provides a good basis for knowledge of the essence. Strictly speaking, the efficient cause of intellection, what immediately provokes it, is the act of abstraction. Albert also adheres to an innate cognition of the first principles, thus putting forward a hybrid epistemology where (1) material things are cognitively accessed through perception, which is based on causation; (2) essences are cognitively accessed in an abstract form through intellection, which is based on determination; and (3) first principles are accessed through innate cognition. Radical Aristotelians, as we shall see, will take issue with (2) and (3).

## 5 Siger of Brabant

Thomas Aquinas is often interpreted as holding a causal account of intellection, both by his medieval and contemporary readers.<sup>48</sup> It is true that he often suggests that the intelligible species are the efficient cause of intellection,<sup>49</sup> so that his works offer some evidence (although perhaps not decisive) to support

47 See, e.g.: “Taliū igitur regulas et principia dare propriū est logici ad incomplexi cognitionem, quae a primis per se cognitis incipiat et deveniat in cognitionem eorum quae quaeruntur. Non enim omnia possunt esse incognita, quia sic quaerendo procederetur in infinitum. Principia enim prima sunt quasi semina per naturam cognitioni hominis inserta, ex quibus quasi seminibus magni oriuntur fructus scientiarum de his quae cognoscuntur per ipsa. Primis enim positis per divisionem cognoscitur, quid potentia sit in ipsis, et ipsa divisio producit usque ad ultimum; propter quod etiam ipsa divisionis scientia necessaria est logico, ut dicit Boethius.” (Albert the Great, *Super Porphyrium de V universalibus*, ed. M. Santos Noya (Münster: Aschendorff, 2004), 1.6, 14.)

48 For a recent interpretation, see Elena Băltuță, “Aquinas on Intellectual Cognition: The Case of Intelligible Species,” *Philosophia* 41 (2013): 589–602. A medieval reading along these lines is presented by Peter John Olivi; see, e.g., Robert Pasnau, *Theories of Cognition in the Latter Middle Ages* (Cambridge: Cambridge University Press, 1997), 168–80.

49 See, e.g., Thomas Aquinas, *Summa theologiae*, ed. P. Caramello (Rome: Marietti, 1952), 1.85.4, co.



the view that, for Aquinas, the abstract essence ‘causes’ intellection in the sense that: (1) it provokes it, by (2) leading the possible intellect to actuality, and (3) informing it.

Siger of Brabant<sup>50</sup> rejects such a strong understanding of the passivity involved in intellection, not least, I think, because it causes difficulties for MICI – for how can the intelligible species act on the intellect? However, Siger’s account of intellection also parts ways with Albert’s, for he also rejects the latter’s understanding of the act of abstraction, notably the idea that it somehow works through our innate cognition of the first principles. In fact, like Aquinas, Siger holds that humans come into being completely devoid of knowledge (the intellect is a *tabula rasa*), and have sensory cognition as the immediate or ultimate source of all possible knowledge. But, contrary to Aquinas and, I surmise, in order to meet MICI, Siger also puts forward an immanentist account of intellection.

Siger’s account of intellection starts with a discussion of the number of agents involved in the actualisation of the possible intellect and their role therein. He rejects a position that he explicitly attributes to Albert:

[...] Albert’s position seems to be that some cognition, namely that of the first principles, is innate in our intellect. [...] not that they [i.e., the first principles] are the agent intellect itself, but they are the instruments of the agent intellect whereby it leads the possible intellect to action [...]. I claim and believe that there is no innate cognition of intelligible things in our intellect but that it is purely potential in relation to all intelligible things [...].<sup>51</sup>

The intellect is purely potential (a *tabula rasa*) with respect to intelligible objects, hence it innately cognises nothing at all. Moreover, the first principles

50 For Siger’s life and works, see Fernand Van Steenberghen, *Maître Siger de Brabant* (Louvain: Publications Universitaires, 1977). For his accounts of the intellect and of intellection, see Carlos Bazán, *La noética de Siger de Brabant* (Paris: Vrin, 2016). These authors also discuss the evolution in Siger’s averroism from his *Quaestiones in tertium De anima* (c.1270) to his *De anima intellectiva* (after 1270), notably the transition from a position according to which the separate intellect is the agent of knowledge to one according to which the agent of knowledge is the human being.

51 “[...] videtur esse positio Alberti, quod intellectui nostro est innata aliqua cognitio, ut scilicet primorum principiorum. [...] non quod ipsa sint intellectus agens, sed sunt instrumenta intellectus agentis, per quae educit intellectum possibilem ad actum [...]. Dico et credo quod intellectui nostro non est innata aliqua cognitio intelligibilium, sed est in pura potentia ad omnia intelligibilia [...]” (Siger of Brabant, *Quaestiones in tertium De anima*, ed. B. Bazán (Louvain: Publications Universitaires, 1972), qu. 12, 39–40.)

are not required for intellection because the agent intellect, the possible intellect, and the sensory representation are jointly sufficient for it.<sup>52</sup>

Intellection comes about because an intelligible object abstracted from sensory representations by the agent intellect is presented to the possible intellect, thus triggering intellection:

When [the intellect] goes from potential to actual intellection, this is not because the cognition of some intelligible objects is innate to it, but because the intellect received from its creator, or from its nature, a natural potency by which it cognises the nature of all intelligible things when they are offered to it. And this potency is the material or possible intellect. But the presentation (*oblatio*) of the intelligible things is made by the imagined intentions and the agent intellect. Hence, the things actually apprehended actualise the material intellect.<sup>53</sup>

The intelligible object presented to the possible intellect actualises it. Now, a number of questions arise: What is the efficient cause in this process? What are the details of the ‘presentation’? And, what is the exact link between the essence in the sensory representation and intellection?

Siger rejects the possibility that the sensory representation directly acts upon the intellect because there can be no causation between such metaphysically incompatible things. In other words, causation cannot be the link between intellection and the material essence upon which an epistemology that meets MICI is based. Siger’s alternative solution is to posit an intelligible object that is the direct cause of intellection, an object that is ontologically different from, albeit similar to, the material essence, produced by the intellect itself and metaphysically compatible with it (as, say, the picture of a human is ontologically different from, albeit similar to, the human). Hence, in order to meet MICI, instead of appealing to a relation of determination between the essence and intellection, as Albert did, Siger brings to the fore an immanent

52 “Aristoteles in hoc tertio dat principia intelligendi tria, quae sunt intellectus materialis sive possibilis, et hoc est principium materiale, et intellectus agens et intentiones imaginatae; requiruntur vero sufficienter ad actum intellectus.” (Siger of Brabant, *In tertium de An.*, qu. 12, 37.)

53 “Cum autem exit de potentia intelligendi ad actum, hoc non est quia intelligibilium aliorum sit ei innata cognitio, sed hoc est quia intellectus a suo factore vel a sua natura habuit potentiam naturalem qua cognoscens est naturam omnium intelligibilium cum sibi offeruntur. Et ista potentia est intellectus materialis sive possibilis. Oblatio autem intelligibilium fit per intentiones imaginatas et per intellectum agentem.” (Siger of Brabant, *In tertium de An.*, qu. 12, 40.)

object produced by the intellect itself and causally related to intellection. Let us see how this works.

Siger begins by rejecting an account of abstraction in which, by an action analogous to that of light upon the colour, the agent intellect makes the essence contained in the sensory representation actually intelligible:

Some [...] imagine that the agent intellect throws rays illuminating the imagined intentions that exist in the organ of the phantasy and thus makes them actually intelligible, just as light through its rays makes the potential colours actual colours.<sup>54</sup>

This account agrees, in fact, with what both Albert and Thomas claim to be the action of the agent intellect on the sensory representation, that is, the actualisation of the material essence's potential intelligibility. However, for Siger, the analogy with light and the colour is misleading in one significant respect: while colour is indeed potentially visible, the material essence (and, in general, everything that is in a material substrate) is not, and cannot be, potentially intelligible, as materiality and intelligibility are mutually exclusive. The agent intellect, then, cannot actualise a potentiality that does not, and cannot, take place. The analogy with light does not help to clarify the true nature of abstraction and intelligibility:

But to say that the intellect throws rays and illuminates is void, false, and said by the ignorant. Moreover, no matter how many rays the light threw, colour would never be abstracted from the true being it has in the object if it did not have intentional being. Therefore, in a similar way no matter how many rays the intellect should irradiate over the imagined intentions, the intentions are never abstracted through irradiation.<sup>55</sup>

Vision is possible because colour is potentially visible, that is, it has the capacity to multiply itself in the transparent under intentional being, a capacity that

54 "Quidam [...] imaginantur quod, <sicut> lumen propter sui irradiationem potentia colores facit actu colores, sic intellectus agens imaginatas intentiones existentes in organo phantasiae illustrando irradiat, et sic ipsas facit actu intelligibiles." (Siger of Brabant, *In tertium de An.*, qu. 14, 49.)

55 "Sed hoc nihil est, dictum intellectum irradiare et illuminare, immo falsum est et ab ignorante dictum. Praeterea, quantumcumque lumen colorem irradiet, tamen numquam color abstraheretur quantum ad esse verum quod habet in obiecto, nisi haberet esse intentionale. Ergo similiter quantumcumque intellectus intentiones imaginatas irradiet, numquam tamen abstrahuntur per irradiationem." (Siger of Brabant, *In tertium de An.*, qu. 14, 49.)

light actualises. But an essence in a material substrate, be it external matter or a material organ, is not intelligible, not even potentially, and hence the agent intellect's action upon the sensory representation cannot bring about actual intelligibility.

Consequently, for Siger, abstraction is the production of an intelligible object (the *ratio intelligendi universalis*) by the intellect itself through its productive power; an object similar to, but ontologically different from, the material essence:

[...] when the imagined intentions are present in the organ of the phantasy, the agent intellect produces universal intentions [similar] to the imagined intentions, and from these similar intentions it abstracts universal notions for the intellection of things. Whence, it produces for itself universal notions for the intellection of things, not by making the imagined intentions in the organ of the phantasy end up in the possible intellect, but by producing for itself, and informing itself with, intentions similar to the imagined particular intentions, and from them it abstracts the universal notions for the intellection of things.<sup>56</sup>

The intellect, then, produces for itself, and informs itself with, an intelligible object that is similar to the material essence (or the imagined intention qua representation of the essence), but not identical with it – an immanent object. Siger says nothing more about the similarity in question. Intellection, in turn, amounts to the apprehension of such an object; an apprehension efficiently caused by the object itself.<sup>57</sup> As a consequence, intellection has a causal relation to an immanent object similar to the material essence.

In Siger's account, the unexplained relation of similarity between the immanent object and the material essence jeopardises the possibility of intellection being the basis of knowledge. Siger does not say much about the

56 “[...] praesentibus imaginatis intentionibus in organo phantasiae, facit intellectus agens intentiones universales <similes (*my correction*)> intentionibus imaginatis, et ab illis intentionibus similibus abstrahit rationes rerum intelligendi universales. Unde facit sibi rationes rerum intelligendi universales, non per hoc quod faciat intentiones imaginatae ab organo phantasiae resultare in intellectum possibilem, sed quia facit sibi et informat intentiones sibi similes intentionibus particularibus imaginatis, et ab illis abstrahit rationes intelligendi rerum universales.” (Siger of Brabant, *In tertium de An.*, qu. 14, 50.)

57 See Siger of Brabant, *In tertium de An.*, qu. 18, 68–69: “Similiter forma immaterialis cognitionem sui obiecti facit secundum quod est similitudo obiecti [...]. Unde nota quod duplex est universale: quoddam est universale quod est intentio pura universalis abstracta, non praedicabilis de particularibus extra; aliud est universale quod non est intentio pura, sed est forma realis, existens in pluribus, praedicabilis de eisdem. Nota ergo quod universale quod est intentio universalis pura facit cognitionem universalis realis.”

similarity between the immanent object and the material essence, but this much is clear: similarity does not sufficiently ground non-accidentally correct knowledge. Take, for instance, two phenomenologically identical immanent objects *D* and *D\**, one of which was produced using the material essence *dog* as a model and the other made up in some other way (for instance, as the notion of the chimera is made however it is). Suppose also that John has intellection caused by *D* and Peter has intellection caused by *D\**. Suppose further that both John and Peter claim to know that *dogs bark*. Similarity does not sufficiently explain why John has a case of knowledge about a mind-independent fact and Peter a case of epistemic luck because similarity is not an asymmetric dependence relation between the immanent object and the material essence so as to sufficiently explain why the immanent object is derived from the material essence and not the other way around. As we shall see, similar concerns drive Radulphus Brito's rejection of accounts of intellection such as Siger's.

## 6 Radulphus Brito

Like Siger, Brito rejects Albert's innate cognition of first principles.<sup>58</sup> But Brito also rejects any account of intellection according to which the first object of intellection is an immanent object.<sup>59</sup> His main motivation is to uphold the

58 “[...] intelligere nostrum dependet ex sensatis et imaginatis. Anima intellectiva non cadit sub sensu neque quantum ad essentiam neque quantum ad suam operationem. Et ideo non potest primo a se intelligi, sed ex intellectione aliarum rerum intelligitur.” (Radulphus Brito, *Quaestiones in Aristotelis librum tertium De anima*, in Winfried Fauser, *Der Kommentar des Radulphus Brito zu Buch III De anima: Kritische Edition und philosophisch-historische Einleitung* (Münster: Aschendorff, 1974), qu. 4, 140.) “Ad istam quaestionem dicendum quod omnis nostra cognitio saltem quantum ad ea quae primo cognoscimus sumitur a sensibus.” (Ibid., qu. 22, 268.) “[...] nulla species intelligibilis est concreata cum intellectu, immo intellectus in prima sui creatione est sicut tabula rasa [...] illa in intellectu existens prohiberet intellectum alia intelligere [...]” (Ibid., qu. 12, 199.) For Brito's life and work, see Ana María Mora-Márquez and Iacopo Costa, “Radulphus Brito,” in *The Stanford Encyclopedia of Philosophy*, ed. E. N. Zalta (2018), <https://plato.stanford.edu/archives/spr2018/entries/radulphus-brito/>; for Brito's cognitive psychology, see Sander W. de Boer, *The Science of the Soul: The Commentary Tradition on Aristotle's De anima c.1260–c.1360* (Leuven: Leuven University Press, 2013), 58–64, 106–113, 173–180.

59 “Aliqui tamen dicunt quod primo intelligitur conceptus et mediante ipso intelligitur res. Et hoc probant [...]. Item, quod patitur patitur a suo simili. Sed isti conceptus sunt magis similes intellectui quam quod quid est, quia sunt immateriales sicut intellectus. Ergo etc.” (Radulphus Brito, *In tertium de An.*, qu. 7, 175.)

possibility of scientific knowledge about the external world, hence his reiterated claim that the first object of intellection is the essence itself.<sup>60</sup> Brito is, however, aware of the challenge that intellection presents because of the metaphysical incompatibility between the intellect and material essences. In the question “Whether intellection is a sort of affection,” he sets out to engage the challenge with an account of intellection that aims to preserve both the passivity of the possible intellect and a direct cognitive access to material essences.

In line with the Aristotelian tradition, Brito holds that intellection is a sort of affection. But affection is of two kinds: first, there is alteration, which is an affection in the strict sense, and in which a form is removed and its contrary received. For instance, heating is an affection in the strict sense because, under the action of the heating agent, the heated thing gradually loses the form of coldness and receives that of heat. Second, there is pure reception, in which, under the action of an agent, there is only the actualisation of a potency without alteration.<sup>61</sup> It is noteworthy that the textual witnesses to Brito’s commentary on *De anima* transmit two different qualifications of reception: while in most manuscripts reception is qualified as an affection in a wide sense (*largo modo*), in the manuscript in London<sup>62</sup> (= L) it is qualified as an affection in an improper sense (*improprie*), which would amount to strict equivocation. L, then, has a reading of the second sense of affection that is closer to Albert’s understanding of it, according to which reception is an affection only in an equivocal sense. As we shall see, however, Brito wants to stay closer to a position that the material essence in the sensory representation is the efficient cause of intellection so as to make the *largo modo* reading seem more appropriate.

The intellect is affected in the second, and not in the first, sense of affection, that is, not by undergoing alteration but only reception. It does not undergo alteration because

60 “Dico quod illud quod primo intelligitur est quod quid est rei et non eius species [...]. Quia illud intellectus intelligit quod de alio affirmat vel negat in oratione. Modo intellectus affirmat et negat ipsam rem de alia et non speciem rei quae est in anima. Quare etc.” (Radulphus Brito, *In tertium de An.*, qu. 7, 174.)

61 “[...] duplex est passio, sicut Philosophus distinguit, quia quaedam est passio proprie dicta, quae est cum abiectioe formae contrariae et per mutuam actionem contrarium ad invicem. Alia est passio largo modo [improprie L] dicta, quae est receptio perfectionis ab altero actu ente.” (Radulphus Brito, *In tertium de An.*, qu. 2, 121.)

62 MS London, British Museum, Arundel 4, fol. 1r–16v.

[...] those things that are affected and act in the first sense have material contact (*communicant in materia*). But the intellect and the intelligible thing do not have material contact, because the intellect is unmixed and immaterial. Therefore, there is no affection properly speaking in it.<sup>63</sup>

So, the immateriality of the intellect prevents it from having material contact, and hence from undergoing alteration. But it undergoes reception because “[...] that which has a receptive potency of some form or perfection is passive according to the affection which is the reception of the perfection; but the intellect is such [...]”<sup>64</sup> So, it undergoes reception in the sense that it is actualised by something other than itself. The question becomes, then, by what is it actualised? Brito provides a clear answer later in his commentary, but already here, in his reply to the counterarguments, he hints at his position:

[...] the object of the intellect is the essence (*quod quid est*) which exists outside joined to particulars. But it *transforms* the intellect, and is an object of the intellect, only through the action and abstraction of the agent intellect [...]. Also, the agent intellect, which, together *with the phantasm*, is the agent of intellection, is something real [...].<sup>65</sup>

Here, then, the essence in the sensory representation and the agent intellect are proposed as efficient co-causes of intellection. Later, in question twelve, Brito makes clear that the agent intellect cannot be the only efficient cause of intellection. Otherwise, given that the agent intellect is naturally joined to the possible intellect, we would have intellection all the time, which is not the case. Therefore, the sensory representation, or rather the essence in it, must also play an efficient role in provoking intellection:

63 “[...] illa quae patiuntur primo modo et agunt communicant in materia. Sed intellectus et intelligibile non communicant in materia, quia intellectus est immixtus et immaterialis. Ergo illi non est passio proprie dicta.” (Radulphus Brito, *In tertium de An.*, qu. 2, 121–22.)

64 “Quia illud quod habet potentiam receptivam alicuius formae seu perfectionis est passivum passione quae est receptio perfectionis. Sed intellectus est huiusmodi [...]” (Radulphus Brito, *In tertium de An.*, qu. 2, 121.) (L: “[...] quod intellectus sit passivus passio improprie dicta: Quod illud quod habet potentiam receptivam alicuius formae est receptivum passione improprie dicta.”)

65 “[...] quod quid est extra coniunctum cum particularibus est obiectum intellectus. Sed tamen actu non immutat intellectum neque obicitur intellectui nisi per actionem et abstractionem intellectus agentis [...]. Item, intellectus agens qui est agens intellectionem una⟨m (?)⟩ cum phantasmate, est aliquid reale [...]” (Radulphus Brito, *In tertium de An.*, qu. 2, 126; my italics.)

But it must be understood that the agent intellect does not sufficiently lead the intellect from potency to act. Rather, a phantasm is required with it, which by virtue of the agent intellect moves the possible intellect. Because if the agent intellect sufficiently led the possible intellect from potency to act, our intellect would have intellection all the time, since the agent intellect is always joined to the possible intellect.<sup>66</sup>

The material essence in the sensory representation sets in motion the possible intellect thanks to the action of the agent intellect. But, how can the agent intellect give the material essence the capacity to set in motion an immaterial power? To see this, we must turn to question sixteen, where Brito explains the exact roles of the agent intellect and of the essence in the sensory representation in intellection.

Question sixteen concerns the mechanism of abstraction<sup>67</sup> by means of which the agent intellect makes intelligible the material essence in the sensory representation. Brito, like Siger, rejects the accounts of abstraction according to which the role of the agent intellect is to provide the material essence with intelligibility because whatever is received in a material substrate will be individual, and hence non-intelligible. However, Brito parts ways with Siger in that he holds the material essence to be potentially intelligible. The material essence is not actually intelligible only because in material substrates it co-exists with accidents such as colour, magnitude, and so forth. Accordingly, for Brito, Aristotle's comparison of the role of the productive intellect in intellection to that of light in vision is revealing, because as light actualises the visibility of the colour, the agent intellect actualises the intelligibility of the material essence. Intelligibility is an active power of the material essence. Once this power is actualised, the material essence can produce intellection:

66 "Sed intelligendum est quod intellectus agens non sufficienter reducit intellectum de potentia ad actum. Sed requiritur cum hoc phantasma quod in virtute intellectus agentis movet intellectum possibilem. Quia si intellectus agens sufficienter reduceret intellectum possibilem de potentia ad actum, cum intellectus agens sit semper coniunctus cum intellectu possibili, tunc intellectus noster semper intelligeret." (Radulphus Brito, *In tertium de An.*, qu. 12, 199–200.)

67 For abstraction, see Ana María Mora-Márquez, "La contribution de Raoul le Breton à la discussion médiévale sur le caractère passif ou actif de l'intellection," in *Miroir de l'amitié: Mélanges offerts à Joël Biard*, ed. C. Grellard (Paris: Vrin, 2017), 177–92; and Mary Sirridge, "The Universal Living Thing is either Nothing or Posterior," in *Mind, Cognition and Representation: The Tradition of Commentaries on Aristotle's De anima*, ed. P. J. M. M. Bakker and J. M. M. H. Thijssen (Aldershot: Ashgate, 2007), 45–68.



“[...] the phantasms do not have intelligibility as a passive potency, but as an active potency to be apprehended because they actively produce intellection.”<sup>68</sup>

Brito points, then, to a co-causality between the essence in the sensory representation and the agent intellect in the process of intellection:

[...] owing to the virtual contact between the light of the agent intellect and the phantasm, and to the co-assistance of this light with the phantasms, the quiddity that was in the phantasms with accidental notions can *in itself* move or transform the intellect without the accidents and the particular conditions under which it was in the phantasy being cognised.<sup>69</sup>

In this process, however, the material essence in the sensory representation seems to be the foremost efficient cause of intellection. Brito takes abstraction to be, in an almost literal sense, the illumination by the agent intellect of only the essence in the sensory representation. Through the act of abstraction, the material essence becomes actually intelligible, just as the whiteness of milk, but not its sweetness, becomes actually visible under the action of light. In other words, the agent intellect makes the essence in the sensory representation actually capable of producing the act of intellection:

[...] in relation to the phantasms the agent intellect, owing to a certain separation of the quiddity from the particular and material conditions (not real but according to the way of transforming), makes them capable of immaterially transforming or moving the possible intellect so that the quiddity in the phantasy produces a determined cognition in the intellect.<sup>70</sup>

68 “[...] phantasmata non sunt in potentia passiva respectu intelligibilitatis sed sunt in potentia activa ad intelligi quia faciunt active intellectionem.” (Radulphus Brito, *In tertium de An.*, qu. 16, 242.)

69 “[...] ex contactu virtuali luminis intellectus agentis ad phantasmata et ex coassistencia istius luminis cum phantasmatis quidditas quae erat in phantasmatis sub ratione accidentium potest movere seu immutare intellectum *secundum se* praeter hoc quod accidentia et condiciones particulares sub quibus erat in phantasia cognoscantur.” (Radulphus Brito, *In tertium de An.*, qu. 16, 236; my italics.)

70 “[...] intellectus agens circa phantasmata facit quod ipsa ex quadam separatione quidditatis a conditionibus particularibus et materialibus non realiter sed secundum modum immutandi possunt intellectum possibilem immaterialiter immutare seu movere ita quod quidditas phantastica facit in intellectu determinatam cognitionem.” (Radulphus Brito, *In tertium de An.*, qu. 16, 239–40.) Cf.: “[...] respectu intellectus possibilis facit

Intellection is, thus, primarily caused by the material essence even though this essence is made an actual cause by the agent intellect.

To sum up, intellection is, for Brito, the reception of a material essence in the intellect, where reception is understood as the actualisation of a potency by an agent other than the receiving thing. In intellection, this agent is the material essence *under the light* of the agent intellect.<sup>71</sup> The relation between intellection and the material essence is, therefore, one of causation; a causation enabled by the agent intellect,<sup>72</sup> which Brito considers an efficient co-cause.

Brito's account has an edge on Siger's in that in the former intellection is, through causation, directly<sup>73</sup> and non-accidentally linked to the material essence, so as to be a good basis for knowledge about the material world.<sup>74</sup> But does Brito meet all the criteria of MICI? Not quite, because it contains an explanatory gap, for the act of abstraction that makes the essence causally efficient with respect to intellection is not sufficiently accounted for. It is explained only metaphorically as an illumination of sorts. Consequently, Brito fails to meet MICI because it remains mysterious how the agent intellect can help the material essence get rid of its metaphysical hindrance to be the efficient cause of intellectual acts.

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formam positive et immaterialiter a quidditate phantastica generari [...] in intellectu phantasmata generent determinatam cognitionem rei cuius sunt phantasmata." (Ibid., qu. 16, 240.)

71 "Secundo dicendum est quod intellectus possibilis intelligit per abstractionem a phantasmatibus, id est intelligendo quidditatem rei, non intelligendo accidentia vel condiciones particulares et materiales sub quibus existit in phantasia." (Radulphus Brito, *In tertium de An.*, qu. 22, 269.) For Brito, the intelligible species is the act of intellection. He thus rejects a position often attributed to Aquinas, according to which the intelligible species is the efficient cause of intellection: "[...] dicendum quod species quae dicitur esse in anima non est aliud quam cognitio rei. Et hoc potest probari per rationes prius dictas." (Ibid., qu. 24, 288.)

72 "[...] phantasmata secundum se et in virtute propria non agunt in intellectum possibilem sed in virtute intellectus agentis et sub esse immateriali et abstracto." (Radulphus Brito, *In tertium de An.*, qu. 22, 271.)

73 "[...] dico quod illud quod intelligitur de se est quidditas rei secundum se cui accidit et esse signatum et esse abstractum. Tamen intelligitur sub esse quod habet in anima ita quod illud esse quod habet in anima non est illud quod intelligitur sed illud sub quo res intelligitur." (Radulphus Brito, *In tertium de An.*, qu. 7, 176.)

74 "[...] talis intellectus non est fictus quia quidditas et natura rei prior est quam condiciones individuales et ideo nata est cognosci non cognoscendo illas condiciones." (Radulphus Brito, *In tertium de An.*, qu. 22, 269.)

## 7 Conclusion

In the first part of this chapter I formulated MICI as:

The challenge to account for intellection by means of a (a) non-cognitive/non-epistemic, (b) plausible, and (c) positive link between intellection and essences that (d) makes intellection a good basis for non-accidental knowledge about them.

Albert, Siger, and Brito succeed in meeting (a) and (c): they all posit relations between intellection and its object (determination in Albert and causation in Siger and Brito) that are (a) non-cognitive/non-epistemic and (c) positive. As we have seen, Siger fails to meet (d), because the relation of similarity between the immanent object, which directly causes intellection, and the material essence jeopardises intellection's ability to be the basis of true knowledge. In order to meet (d), Brito rejects accounts such as Siger's, which introduce intermediate objects of intellection. But Brito leaves a gap as regards (b), for he posits a relation of causation, made possible by the agent intellect, between intellection and the material essence, but does not explain sufficiently the mechanism whereby the agent intellect enables such a relation. Does Albert's account fare any better as regards MICI? Regarding (b), is determination a plausible relation between the immaterial and the material realms? If we understand it as akin to formal causation, as I have suggested, I think it is; for nothing prevents, say, the form of the table in the designer's mind from formally determining the material table in my living room, so determination between the immaterial and the material realms can indeed obtain. As I have shown, Albert's account also meets (d), for, through determination, intellection of  $x$  is ontologically dependent on  $x$  so as to be a good basis for non-accidental knowledge of  $x$ . His account is also complete, insofar as the Aristotelian theoretical framework is concerned, for intellection continues to be a passive process, which in Albert's case is actualised by the act of abstraction and not by the object of intellection, as in Siger's and Brito's accounts.

To sum up, although Albert's, Siger's, and Brito's accounts are structurally similar in that they all understand concept formation as crucially composed of two distinct psychological processes – intellection and abstraction – the subtle but substantial differences between their accounts emerge clearly when we submit these accounts to the test of MICI.