Universal Representation, and the Ontology of Individuation

Proceedings of the Society for Medieval Logic and Metaphysics

Volume 5

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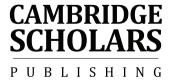
Universal Representation, and the Ontology of Individuation

Edited by

Gyula Klima and Alexander W. Hall

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Volume 5



Universal Representation, and the Ontology of Individuation Volume 5: Proceedings of the Society for Medieval Logic and Metaphysics, Edited by Gyula Klima and Alexander W. Hall

This book first published 2011

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

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ISBN (10): 1-4438-3372-X, ISBN (13): 978-1-4438-3372-1

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INTRODUCTION*

ALEXANDER W. HALL

The Proceedings of the Society for Medieval Logic and Metaphysics (PSMLM) collects original materials presented at sessions sponsored by the Society for Medieval Logic and Metaphysics (SMLM). Founded by Gyula Klima (Director), Joshua Hochschild (Secretary), Jack Zupko and Jeffrey Brower in 2000 (joined in 2011 by Assistant Director, Alexander Hall) to recover the profound metaphysical insights of medieval thinkers for our own philosophical thought, the Society currently has over a hundred members on five continents. The Society's maiden publication appeared online in 2001 and the decade that followed saw the release of eight more volumes. In 2011, PSMLM transitioned to print. Sharp-eyed readers of these volumes will note the replacement of our (lamentably copyrighted for commercial use) lions, who guarded the integrity of the body of an intellectual tradition thought to be dead, with the phoenixes that mark our rebirth. Friends of the lions will be happy to note that they remain at their post, protecting PSMLM's online proceedings at http:// faculty.fordham.edu/klima/SMLM/.

There is broad agreement in the medieval tradition that we conceive things in the world owing to the transmission of intelligible content through

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^{*} This volume collects papers from two sessions sponsored by the *Society for Medieval Logic and Metaphysics*, collected online as volume five of the Society's proceedings (http://faculty.fordham.edu/ klima/SMLM/), the colophon of which appears as an appendix to this volume. The papers of the first session, devoted to the issue of intellectual cognition in Avicenna, Averroes and Aquinas, were presented at the *Fordham International Conference on Ancient and Medieval Philosophy*, on October 15, 2005, at Fordham University, New York, NY. The papers of the second session, on the medieval problem of the principle of individuation, were presented at the regular meeting of our Society at the 2005 *Annual Meeting of the American Catholic Philosophical Association*, held at the University of Notre Dame, on October 29, 2005. Some of the papers are reproduced here basically unchanged, as they were presented, while others were expanded and revised by their authors for this volume [GK].

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various media that culminates in the concept by which something in the world is cognitively present for us. Yet how the intelligible content is transmitted along with the nature of the ultimate object of cognition provoked ceaseless debate. The first three essays in this volume consider these issues as they play out in the metaphysics and natural philosophy of Avicenna, Averroes, Thomas Aquinas, Ockham and others.

The last three essays turn to the metaphysical problem of the nature of the principle of individuation. Moderate realists believe in the existence of immanent general natures such as humanity and equinity, whereby individuals are members of diverse natural kinds. Accordingly, moderate realists such as Aquinas, Henry of Ghent and Duns Scotus need to investigate the nature of the individuating principle by which members of one and the same natural kind differ from one another. Nominalists, for their part, need not concern themselves with any principle of individuation as, for them, all reality is individual, there being no immanent universals; but this release comes at the cost of a new set of epistemological problems.

For Aquinas, intellectual cognition requires that the form in the knower be numerically distinct from the form in the form-matter composite. Responding to the claim that this renders Aquinas a representationalist, Max Herrera, in *Understanding Similitudes in Aquinas with the Help of Avicenna and Averroes*, argues that Aquinas asserts a relationship of identity and similitude between the knower and the known. We conceive things in the world through species that communicate the formal aspects (*rationes*) of these things. Aquinas allows the same *ratio* to exist in various modes of being, materially in things, immaterially in the mind. Thus, the intelligible species and the concept are *formally identical* with the nature in the form-matter composite because they have the same *ratio*, and yet they are also similitudes, for the *ratio* exists immaterially in the intellect and materially in the composite.

The Agent Intellect as "form for us" and Averroes's Critique of al-Fârâbî by Richard C. Taylor concerns Averroes's Long Commentary on the De Anima, wherein Averroes sets forth his novel and controversial doctrine of the material intellect as a separately existing substance shared by all human beings for the sake of intellectual thought and understanding. Additionally, the Long Commentary conceives the agent intellect as "form for us," both because we are the ones who individually initiate the process of knowing and also because, in our act of knowing, the agent intellect is intrinsic to us, not something external emanating intelligibles out of itself.

To employ the notion of form so that the ontologically separate agent intellect is also an intrinsic form acting in the ontologically distinct human knower so as to be called "form for us" is to extend the meaning of form far beyond the Aristotelian notion. Yet Averroes shows no indication of an awareness of the extent to which his conception of the agent intellect in its relation to the human soul is equally as novel and problematic as his conception of the material intellect as unique and shared by all human beings.

Gyula Klima's *Intentional Transfer in Averroes, Indifference of Nature in Avicenna, and the Representationalism of Aquinas* contends that the Averroistic notion of "intentional transfer," combined with the Avicennean idea of the indifference of nature, yielding the Thomistic doctrine of the formal unity of the knower and the known, renders moot the question whether Aquinas (or thinkers within the pre-modern epistemological tradition in general) is a representationalist or a direct realist.

In Henry of Ghent on Individuation, Martin Pickavé presents Henry of Ghent's discussion of the principle of individuation, defined by Henry as what is responsible for the plurification of a form that is itself simple and indivisible. Henry's teaching on this matter is notorious for at least two reasons: (1) It seems that the censorship of the thesis that matter is the principle of individuation advanced in the Condemnations of 1277 originates with Henry, who helped draft the Condemnations; and (2) Where Henry comes to present his own account of individuation, his language seems very imprecise; accordingly, interpreters give different answers to the question of what Henry regarded as the principle of individuation, opting for an explanation in terms of either subsistence or a double negation. Pickavé contends that subsistence and double negation are in truth two sides of the same account of individuation and that it is because Henry's discussions of these individuating principles occur in different works that critics have mistaken one or the other account of individuation to be solely representative of Henry's position.

Scotus contends that there exists an individuating principle that plays at the individual level the same role that a specific difference plays at the specific level. Scotus is elusive as to what type of entity this principle is, leading commentators to describe it as a theoretical construct, direct knowledge of which cannot be had, at least in this life. Giorgio Pini's *Scotus on Individuation* argues that Scotus conceives the principle of individuation to be an Aristotelian actuality, rather than some additional

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type of entity. The relationship between an essence and what makes it individual is then no more mysterious than the relationship between potentiality and actuality. The principle of individuation is an actuality, just as the specific difference is an actuality. The principle of individuation is the ultimate actuality of an essence. The essence, by itself, is not individual, but it is made individual by being made actual.

In the final essay, *Thomas Sutton on Individuation*, Gyula Klima considers Thomas of Sutton's defense of the Thomistic-Aristotelian thesis that matter primarily accounts for the difference between individuals and addresses alternative accounts of individuation advanced by Henry of Ghent, Duns Scotus and fourteenth-century nominalism.

UNDERSTANDING SIMILITUDES IN AQUINAS WITH THE HELP OF AVICENNA AND AVERROES*

MAX HERRERA

In an article entitled Aquinas on Intellectual Representation, Claude Panaccio says:

Many recent commentators on Thomas Aquinas have insisted that his theory of intellectual cognition should not be seen as a brand of representationalism. [...] And, of course, several scholars have labeled Aquinas as a 'direct realist' in epistemology. [...] I will endeavor to show [...] a perfectly acceptable sense in which his [Aquinas's] theory of intellectual intentionality is basically representationalist.¹

Panaccio then defines what he means by representationalism:

[...] any theory of cognition which attributes a crucial and indispensable role to some sort of mental representation. And by *mental representation*, I will mean any symbolic token existing in some individual mind and endowed within this mind with a semantic content. A mental representation, in this vocabulary, is a mental token referring to something *else*, something extramental in most cases. [...] Aquinas's theory does attribute a crucial and indispensable role to such intermediate entities in the very process of understanding.²

After defining his terms, Panaccio claims that there are texts in Aquinas that support a direct realist position, and there are texts in Aquinas that support a representationalist position. He says: "I will explore ways of

^{*} This paper was presented at the *Ancient and Medieval Conference* in October 2005 at Fordham University and is a result of the "Aquinas and the Arabs" project at Marquette University.

¹ Claude Panaccio, "Aquinas on Intellectual Representation," in *Ancient and Medieval Theories of Intentionality* (Leiden, Netherlands: Brill, 2001), 185.
² Ibid.

reconciling these two opposite trends in Aquinas's thought. My point, then, will be that the representationalist aspect of the theory must prevail in the last analysis." Panaccio then proceeds to demonstrate that the intelligible species is not the nature of the thing known, and that the concept produced by the mind is not the nature of the thing known either. Instead, the intelligible species and the concept are mental tokens, which are likenesses of the nature, but they are not identical with the quiddity or nature. Thus, the relation between the knower and the known is not one of identity; instead, the relationship is one of likeness. Finally, Panaccio ends by saying "no external thing, for him [Aquinas], can be cognized without a mental concept—or mental word—being formed as an *intermediate object of intellection*. Aquinas's representationalism thus turns out to be incompatible with direct realism after all."

In this paper, I will argue that the relationship between the knower and the known is one of identity in one sense, *and* yet the relationship *must* be one of similitude in another sense. Consequently, the intelligible species and the concept can be simultaneously understood as identical with the nature of the thing and as similitudes of the nature. In order to argue my point, section one briefly examines Aquinas's metaphysics and its epistemological consequences; section two examines Avicenna's metaphysics; section three examines Averroes's long commentary (on Aristotle's *On the Soul*); section four examines Aquinas' epistemology in light of the aforementioned sections, and section five concludes the paper.

Aquinas's metaphysics

In this section, I briefly look at three important aspects of Aquinas's metaphysics: (1) What constitutes the essences of material things; (2) What are the constitutive roles of form and matter; (3) How do the constitutive roles of form and matter set up the problem of representationalism.

For Aquinas, form and matter constitute the essence of a material thing. Thomas says:

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³ Ibid., 185-86.

⁴ Ibid., 186-200.

⁵ Ibid., 200.

⁶ Ibid.

In things composed from matter and form, the nature of a thing, which is called quiddity or essence, results from the conjunction of form and matter as for example humanity results from the conjunction of the soul and the body.⁷

Aquinas also mentions that form and matter should not be thought of as created things, because form, matter, accidents and the like do not subsist; instead, they coexist within created things. Therefore, one ought to say that form and matter are co-created, whereas the form-matter composite is created.⁸

In the form-matter composite, form and matter play different constitutive roles. Matter is the principle of individuation of forms, 9 and it is indifferent to the reception of all natural forms. 10 In addition, prime matter is the pure potency, and as such, prime matter cannot exist without form, which communicates actuality to prime matter. 11 Form, on the other hand, not only communicates actuality to prime matter, but it also specifies and determines matter. 12 Because of their different constitutive roles, form and matter play different epistemological roles.

According to Aquinas, whatever is intelligible is intelligible insofar as it is actual, not insofar as it is in potency. ¹³ Yet, prime matter is pure potency;

⁷ Thomas Aquinas, *Scriptum Super Sententiis Magistri Petri Lombardi*, Edited by Mandonnet (Paris: Lethielleux, 1929), Bk 1 d. 3 q. 1 a. 1 resp. In rebus ex materia et forma compositis, natura rei, quae quidditas vel essentia dicitur, ex conjunctione formae ad materiam resultat, ut humanitas ex conjunctione animae et corporis.

⁸ Thomas Aquinas, Summa Theologiae (Ottawa, Canada: Studii Generalis O. PR, 1941), I^a q. 45 a. 4 resp.

⁹ Aquinas, *Summa Theologiae*, I^a q. 75 a. 5 resp.

¹⁰ Aquinas, *Scriptum Super Sententiis Magistri Petri Lombardi*, Bk 1 d. 43 q. 1 a. 1 resp. materia prima, quae de se est indifferens ad omnes formas (unde et infinita dicitur) finitur per formam;

¹¹ Thomas Aquinas, *De Ente et Essentia*, Opusculum (Turin: Marietti, 1957), Cap 3. Talis autem invenitur habitudo materiae et formae, quia forma dat esse materiae. Et ideo impossibile est esse materiam sine aliqua forma. Tamen non est impossibile esse aliquam formam sine materia.

¹² Aquinas, De Ente et Essentia, Cap. 1.

 $^{^{13}}$ Aquinas, *Summa Theologiae*, 12 q.87 a. 1 resp. Respondeo dicendum quod unumquodque cognoscibile est secundum quod est in actu, et non secundum quod est in potentia.

hence; it is not the principle for cognition. ¹⁴ Nevertheless, matter is intelligible insofar as it proportioned to some form. ¹⁵ That is to say, insofar as it has received a form. ¹⁶ If one reflects on what has been said, one sees that if the essence of a thing is to be known, it will be by virtue of its form, which species, determines and actualizes the matter. ¹⁷ The essence of a thing will not be known by virtue of its matter because matter precludes something from being intelligible. Accordingly, Aquinas states that all cognition is according to some form, which is principle of cognition in the knower, ¹⁸ but he also states that the form in the form-matter composite cannot be the principle of intellectual cognition. ¹⁹ Hence, the form that is the principle of cognition is numerically distinct from the form in the form-matter composite.

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¹⁴ Aquinas, *De Ente et Essentia*, Cap 1. Sed materia neque cognitionis principium est, neque secundum eam aliquid ad genus vel speciem determinatur, sed secundum id quod aliquid actu est.

¹⁵ Aquinas, *Summa Theologiae*, I^a q. 87 a. 1 resp. Respondeo dicendum quod unumquodque cognoscibile est secundum quod est in actu, et non secundum quod est in potentia, ut dicitur in IX metaphys., sic enim aliquid est ens et verum, quod sub cognitione cadit, prout actu est. Et hoc quidem manifeste apparet in rebus sensibilibus, non enim visus percipit coloratum in potentia, sed solum coloratum in actu. Et similiter intellectus manifestum est quod, inquantum est cognoscitivus rerum materialium, non cognoscit nisi quod est actu, et inde est quod non cognoscit materiam primam nisi secundum proportionem ad formam, ut dicitur in I physic.

¹⁶ Thomas Aquinas, *Quaestiones Disputatae De Veritate* (Rome: Leonine Commission, 1972), q. 10 a. 4 resp. Ex cognitione ergo formarum quae nullam sibi materiam determinant, non relinquitur aliqua cognitio de materia; sed ex cognitione formarum quae determinant sibi materiam, cognoscitur etiam ipsa materia aliquo modo, scilicet secundum habitudinem quam habet ad formam; et propter hoc dicit philosophus in I physic., quod materia prima est scibilis secundum analogiam. Et sic per similitudinem formae ipsa res materialis cognoscitur, sicut aliquis ex hoc ipso quod cognoscit simitatem, cognosceret nasum simum.

¹⁷ Aquinas, Summa Theologiae, q. 86 a. 1 r 3.

¹⁸ Aquinas, *Quaestiones Disputatae De Veritate*, q. 10 a. 4 resp. omnis cognitio est secundum aliquam formam, quae est in cognoscente principium cognitionis.

¹⁹ Aquinas, *Scriptum Super Sententiis Magistri Petri Lombardi*, Bk 4. d. 49 q. 2 a. 2. Ad quartum dicendum, quod omnis cognitio fit per aliquam abstractionem a materia; et ideo quanto forma corporalis magis abstrahitur a materia, magis est cognitionis principium; et inde est quod forma in materia existens nullo modo est cognitionis principium; in sensu autem aliquo modo, prout a materia separatur; et in intellectu nostro adhuc melius.

Numerically distinct forms are problematic because Aquinas wants to maintain that the form of the known is in the knower (Panaccio refers to the identity between the knower and the known as intentional identity),²⁰ yet, he says that the relationship between the nature in the intellect and the nature of a thing is a relationship of a similitude.²¹ Instead of reducing intentional identity to representationalism as Panaccio has done, let us look to Avicenna to help us understand how the relationships of identity and similitude are to be reconciled.

Avicenna's doctrine of the indifference of essence/nature

Avicenna is well known for his doctrines of essence/existence and indifference of nature, which are doctrines that he uses to resolve both logical problems and metaphysical problems.²² In this section, I will examine a text from Avicenna's *Liber de Philosophia Prima* in order to explain Avicenna's doctrine of the indifference of nature and its epistemological importance.

In the following text, Avicenna states:

Animal understood with its accidents is a natural thing, but understood *per se*, it is a nature of which it is said that its being is prior to it's natural being, just as the simple is prior to the composite, and this is that whose being is properly called divine being, since the cause of its being inasmuch as it is animal is in the intention of God. But its existing with matter and accidents and its being this individual thing, although it is a divine intention, is nevertheless attributed to a particular nature. Hence, just as

²⁰ Aquinas, *Summa Theologiae*, I^a q. 14 a. 1 resp. quia non cognoscentia nihil habent nisi formam suam tantum; sed cognoscens natum est habere formam etiam rei alterius, nam species cogniti est in cognoscente.

²¹ Aquinas, *De Ente et Essentia*, Cap. 2. Ipsa enim natura humana in intellectu habet esse abstractum ab omnibus individuantibus, et ideo habet rationem uniformem ad omnia individua, quae sunt extra animam, prout aequalit est similitudo omnium.

²² Problem 1 (logical): If animality includes universality in its very definition, then we cannot predicate it of a particular animal. If, on the other hand, particularity is included in the definition of animality, then this would not only exclude its predication of a universal subject, but also of any individual other than the one specified in the quiddity's definition. Problem 2 (metaphysical): How can the same quiddity be "found in many" and not be many? His answer is that a quiddity considered in itself is neither one nor many, for considered in itself, it is itself alone. Cf. Michael Marmura, *Probing in Islamic Philosophy* (Binghamton, New York: Global Academic Publishing, 2005), 24-25.

animal in [real] being is in many ways, so also it is in the intellect. For in the intellect it is the form of animal abstracted according to the abstraction of which we had previously spoken, and [existing] in this manner, it is called an intelligible form. However, in the intellect, the form of animal [existing in this manner] is of such a kind that one and the same definition [it has] in the intellect befits many particular things. Hence, one form in the intellect will be related to many particulars, and it is in this respect that it is universal, because it is *one intention* in the intellect, whose relation [to the particulars] does not vary no matter which particular animal you take, since it does not matter which one of those it was whose form you first represented in the imagination if the intellect subsequently denuded (*expoliaverit*) its intention from the accidents, for then this exact same form is acquired in the intellect.²³

In other words, a nature can be understood in three modalities: *in re, in se, in mente*. In the first modality, *in re*, a nature is found existing with its accidents. Although Avicenna does not mention what he means by accidents in this text, he mentions it earlier in the same chapter. Avicenna extends or reinterprets here Aristotle's nine categories of accidents in a striking manner, so that universality, particularity, oneness, multiplicity, existing in actuality and existing in potency all become accidents in this extended sense.²⁴ So, any natural thing (i.e., a particular thing) is

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²³ Avicenna, Liber de Philosophia Prima Sive Scientia Divinia, Critical ed., Simone Van Riet (Louvain: E. Peeters, 1980), V, I. p.237-38. Animal ergo acceptum cum accidentibus suis est res naturalis; acceptum vero per se est natura, de qua dicitur quod esse eius prius est quam esse naturale, sicut simplex prius est composito, et hoc est cuius esse proprie dicitur divinum esse, quoniam causa sui esse ex hoc quod est animal est Dei intentione. Ipsum vero esse cum materia et accidentibus et ipsum esse hoc individuum, quamvis sit divina intentio, attribuitur tamen naturae particulari. Unde, sicut animal in esse habet plures modos, sic etiam et in intellectu. In intellectu etenim est forma animalis abstracta secundum abstractionem quam praediximus, et dicitur ipsum hoc modo forma intelligibilis. In intellectu autem forma animalis taliter est quod in intellectu convenit ex una et eadem definitione multis particularibus. Quapropter una forma apud intellectum erit relata ad multitudinem, et secundum hunc respectum est universale, quia ipsum est una intentio in intellectu, cuius comparatio non variatur ad quodcumque acceperis animalium, videlicet quoniam, cuiusque eorum primum repraesentaveris formam in imaginatione, si postea exspoliaverit intellectus intentionem eius ab accidentibus, acquiretur in intellectu haec ipsa forma.

²⁴ Avicenna, *Liber de Philosophia Prima Sive Scientia Divinia*, V, I. p. 233. Et hoc est quiddam quod est animal vel homo consideratum in seipso secundum hoc quod est ipsum, non accepto cum eo hoc quod est sibi admixtum, sine conditione communis aut propii aut unius aut multi nec in effectu nec in respectu etiam potentiae secundum quod est aliquid in potentia.

constituted of its nature and these accidents. For example, if one considers Fido, a dog, living in New York, then (1) existing in actuality, (2) living, (3) being in New York, (3) being named Fido, (4) being one thing, and (5) being a particular thing are all accidents extrinsic to the essence of dog.

In the second modality, in se, a nature is understood per se, and Avicenna emphasizes three aspects of a nature in this modality. First, he says that the nature exists prior to its natural being. Second, he qualifies what he means by a nature existing *prior* to its natural being, for he says that the nature exists in the same manner as the simple exists prior to the composite, and earlier in the chapter, he uses the analogy of the part existing prior to the whole. 25 Although it may seem that Avicenna is espousing some form of Platonism, he vehemently denies that a nature understood per se is a subsisting Platonic form.²⁶ Instead, he says that a nature in this modality is said to have divine being because the cause of the nature insofar as it is a nature is the *intention* of God. It is important to note that Avicenna uses the word intention to denote a formal principle in reality existing in things or in minds. 27 Third, he says that even when a nature is found existing with matter, it is still a divine intention, although it is attributed to a particular thing. Thus, a per se nature, does not change in intention when it is particularized.

In the third modality, *in mente*, a nature can be found existing in the human intellect. Under this modality, four things should be noted. First, all material accidents that were conjoined to the nature are removed from it. Second, the nature is called an *intelligible form*, and it no longer resides in a body, but in an immaterial intellect. Third, the form (or nature) in the intellect agrees with many particular things because the *intention* in the intellect is the same *intention* that is found in the many particulars, and hence, the form or nature in the intellect is universal. Fourth, the form in the imagination has the same *intention* as that which is found in the intellect.

²⁵ Avicenna, Liber de Philosophia Prima Sive Scientia Divinia, V, I. p. 234.

²⁶ Avicenna, *Liber de Philosophia Prima Sive Scientia Divinia*, V, I. p. 237. Si autem esset hic animal separatum per se, quemadmodum putaverunt illi, tunc non esset hoc animal quod inquirimus et de quo loquimur. Nos enim inquirimus animal quod praedicetur de multis quorum unumquodque sit ipsum. Separatum vero non praedicatur de his, quoniam nullum eorum est ipsum : unde non est opus eo ad id ad quod intendimus.

²⁷ Andrew S.J. Hayen, *L' Intentionnel dans la Philosophie de Saint Thomas* (Paris: Desclee de Brouwer, 1942), 50.

In sum, for Avicenna, a nature can be considered in one of three modalities —in re, in se, and in mente. In the first modality, a nature exists with matter and its accompanying accidents and is manifested as a natural thing. In the second modality, a nature has no accidents conjoined to it, and it said to exist prior to a natural thing. In addition, the source of its being is the intention of God. In the third modality, a nature exists in the mind, and it is universal because it has the same intention as those found in the particular things existing outside of the mind. In addition, the intention that was found in the intellect existed in the imagination before it existed in the intellect. Thus, what is common to the nature regardless of its mode of being is the intention. The notion of intention is crucial for understanding of Aquinas's doctrine of intelligible species; in order to understand the relationship between the intention in the imagination and the intention in the intellect, we now turn to Averroes.

Averroes and intentional transfer

In this section, I will examine a text in which Averroes explicates what he means by abstraction so that later in the paper, we can see how it contributes to Aquinas's understanding of similitude, intelligible species, and concept. Speaking about the agent intellect and material intellect, which for Averroes are separated subsisting entities, he says:

For we cannot say that the relation of the agent intellect in the soul to the generated intelligible is just as the relation of the artistry to the art's product in every way. For art imposes the form on the whole matter without it being the case that there was something of the intention of the form existing in the matter before the artistry has made it. It is not so in the case of the intellect, for if it were so in the case of the intellect, then a human being would not need sense or imagination for apprehending intelligibles. Rather, the intelligibles would enter into the material intellect from the agent intellect, without the material intellect needing to behold sensible forms. And neither can we even say that the imagined intentions are solely what move the material intellect and draw it out from potency into act. For if it were so, then there would be no difference between the universal and the individual, and then the intellect would be of the genus of the imaginative power. Hence, in view of our having asserted that the relation of the imagined intentions to the material intellect is just as the relation of the sensibles to the senses (as Aristotle will say later), it is necessary to suppose that there is another mover which makes [the intentions] move the material intellect in act (and this is nothing but to make [the intentions] intelligible in act by separating them from matter). Because this intention, which forces the assertion of an agent intellect

different from the material intellect and different from the forms of things which the material intellect apprehends, is similar to the intention on account of which sight needs light, in view of the fact that the agent and the recipient are different from light, he was content to make this way known by means of this example. It is as if he says: and the way which forced us to suppose the agent intellect is the same as the way on account of which sight needs light. For just as sight is not moved by colors except when they are in act, which is not realized unless light is present since it is what draws them from potency into act, so too the imagined intentions do not move the material intellect except when the intelligibles are in act. because it is not actualized by these unless something else is present. namely, the intellect in act. It was necessary to ascribe these two activities to the soul in us, namely, to receive the intelligible and to make it, although the agent and the recipient are eternal substances, on account of the fact that these two activities are reduced to our will, namely, to abstract intelligibles and to understand them. For to abstract is nothing other than to make imagined intentions intelligible in act after they were [intelligible] in potency. But to understand is nothing other than to receive these intentions. For when we found the same thing, namely, the imagined intention is transferred in its being from one order to another, we said that this must be from an agent cause and a recipient cause. The recipient, however, is the material [intellect] and the agent is [the intellect] which brings [this] about 28

Before examining this text, one should understand that the word *intention* as it is used in this context will be synonymous with what Aquinas will later denominate as *ratio*, ²⁹ the intelligible aspect of a thing as grasped by the mind.³⁰

There are three points that are noteworthy in this text. First, the *intentions* or formal aspects that enter the material intellect, a subsisting separated entity, do not have their origin in the agent intellect, for if they did have their origin in the agent intellect, then imagination and sensation would not be necessary. Averroes, who follows Aristotle, affirms that sensation and imagination are necessary for understanding, so the source of the intentions is not the agent intellect. Second, the *intentions* in the imagination (i.e., imagined intentions) cannot move the material intellect

²⁸ Averroes, *Long Commentary on Aristotle's De Anima*, Translated by Richard Taylor (Forthcoming, 2006), p. 91-92.

²⁹ Hayen, L' Intentionnel dans la Philosophie de Saint Thomas, 51.

³⁰ Thomas Aquinas, *Thomas Aquinas on Being and Essence*, Second Revised, trans. and ed. Armand Maurer (Toronoto, Canada: Pontifical Institute of Medieval Studies, 1968), 45.

from potency to actuality, for if they could, there would be no distinction between universals and individuals, and intellection would be relegated to the level of imagination. Consequently, the agent intellect is necessary but not sufficient to move the material intellect from potency to actuality because it lacks the *intentions* that will specify and determine the material intellect. Also, the imagined intentions are necessary but not sufficient to move the material intellect from potency to actuality because, although it has the intention that can potentially specify and determine the material intellect, nevertheless, it is at a lower ontological level, and it cannot actually specify and determine that which is at a higher ontological level, the material intellect. The consequences of the first two points lead us to point three: in order for the material intellect to go from potency to actuality, the intention that is intelligible in potency has to be made an intention that is intelligible in actuality. That is to say, the intention has to be transferred from one order of being (i.e., sensible, individual) to another order of being (i.e., intelligible, universal). Thus, one finds one and the same *intention* existing under two modalities. As an intelligible in potency, the intention exists in the imagination, and as an intelligible in actuality, the intention exists in the material intellect.

In sum, for Averroes, the agent intellect does not contain *intentions* or forms for it would render sensation and imagination superfluous, nor can the intentions in imagination affect the intellect. Consequently, the role of the agent intellect is to transfer the intentions found in the imagination from one mode of being to another mode of being in order for the material intellect to go from potentiality to actuality. Having looked at Avicenna's indifference of nature and *common intention*, and having looked at Averroes's notion of intentional transference, we are in a better position to understand Aquinas's epistemology.

Aquinas's epistemology

In this section, I will sketch Aquinas's epistemology by (1) looking at the philosophical problems that give rise to the notion of species; (2) examining what a species is and examining its function; (3) examining in what sense the relationships between the known and knower is one of similitude and one of identity.

The assimilation of the known into the knower, and the incommensurability between the world and the intellect give rise to the notion of species. For

Aquinas, knowing is the assimilation of the known into the knower.³¹ That is to say, there is an identity between the knower and the known where the known exists in the knower. Yet, the assimilation of the known into the knower seems impossible given the incommensurability between the world and the intellect.

For Aquinas, the agent intellect, an active potency, and the possible intellect, a passive potency, reside in each human soul, which is immaterial.³² The external world, on the other hand, is material. Given the ontological gap between the material world and the immaterial intellect, neither the intellect nor the world can directly causally act upon each other. Hence, they are incommensurable. Aquinas himself says that "our intellect is not able to directly and primarily know the singular in material things. The reason for this is that the principle of singularity in material things is individual matter."³³ In addition, Aquinas says, "unless one goes through some medium one may not pass from one extreme (i.e., material) to another (i.e., immaterial)."³⁴ In order to resolve these difficulties Aquinas relies on the notion of species and the notion of grades of abstraction.

A species is a type of form that intentionally specifies and determines its subject by communicating a *ratio*, also known as *intentio*, to its subject. The *ratio* or *intentio* is a formal characteristic that *intentionally* specifies and determines its subject. The notion of intentionally specifying and determining a subject is abstruse and may be best understood when contrasted with a non-intentional form (i.e., a natural form). For example, the form of fire is a natural form, and as such it communicates fire. Thus, the heat that is found in the fire is also found in the thing that is set on fire, the subject. In contradistinction, a species of fire that is received in the air will not make the air hot, nor will a species of fire received into a sense organ make the sense organ hot, nor will a species of fire received into the

³¹ Aquinas, *Summa Theologiae*, I^a q.14 a. 1 r.3. scientia est secundum modum cognoscentis, scitum enim est in sciente secundum modum scientis.

³² Thomas Aquinas, *Summa Contra Gentiles*, Caramello (Marietti: Taurini-Romae, 1961), Liber 2, cap. 76, n. 2.

³³ Aquinas, *Summa Theologiae*, I^a q. 86 a. 1 resp. Respondeo dicendum quod singulare in rebus materialibus intellectus noster directe et primo cognoscere non potest. Cuius ratio est, quia principium singularitatis in rebus materialibus est materia individualis."

³⁴ Aguinas, Quaestiones Disputatae De Veritate, q. 19 a. 1 resp.

intellect make the intellect hot. Having looked at what species are, let us examine how they bridge the gap between the material and immaterial.

According to Aquinas, visible bodies multiply their species in the medium.³⁵ In other words, composites of matter and form emit species into the medium (e.g., air or water). Consequently, the medium is in potentiality to species; when a species is emitted from a visible body, the medium goes from potentially having a species to actually having a species. These species that exist in the air are called *species in medio*, and they communicate the *intentio* or *ratio* that is present in the form-matter composite.³⁶ In addition, because the *species in medio* is not in the form-matter composite, the *ratio* is less material. Hence, the *species in medio* has been abstracted from matter in some sense. For example, a stone emits a species that is received in the air. That *species* not only causes the air to go from potentially having a species of a stone to actually having a species of a stone to actually having a species of a stone.

In turn the *species in medio*, communicates the *ratio* that is in the medium to the sense organ. That is to say, the sense organ is in potentiality to receiving the formality that is in the species *in medio*. When the *species in medio* communicates its formality to the sense organ, the sense organ goes from potentially having the species to actually having the species. When the species is received into the sense organ, it is called a *sensible species*. The sensible species cause the sense organ to go from potentially sensing to actually sensing. In addition, not only does the sense organ go from potentially sensing to actually sensing, but it goes from potentially sensing some specific thing. For example, when the species of the stone is received in the sense organ, the sense organ senses the stone. In addition, since the *ratio* of the stone exists in the sense organ without the matter of the stone, the form of the stone is said to exist in a more immaterial fashion.³⁷

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³⁵ Thomas Aquinas, *Quaestiones Disputatae de Potentia*, 8th ed., edited by Marietti (Taurini-Rome, 1953), q. 5 a. 8 resp. corpora visibilia multiplicant suas species in medio, virtute luminis, cuius fons est in caelesti corpore.

³⁶ Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (New York: Cambridge University Press, 1997), 14. Alfred Wilder, "On the Knowing Species in St. Thomas: Their Necessity and Epistemological Innocence," *Angelicum* 68, no. 1 (1991): 2-32. John P. O' Callaghan, *Thomistic Realism and the Linguistic Turn: Toward a More Perfect Form of Existence* (Notre Dame, Indiana: University of Notre Dame, Press, 2003), 177

³⁷ Thomas Aquinas, *Sentencia De Anima* (Rome: Leonine Commission, 1984), Liber 2 Lectio 24. Et per hunc modum, sensus recipit formam sine materia,

The sense organ in turn communicates the formality (i.e., the *ratio* or *intentio*) that is in the sense to the common sense, the unifying sense. The unifying sense is responsible for taking the species from multiple senses and creating a unified percept, which contains the formalities (i.e., *rationes* or *intentiones*) communicated by the senses.³⁸ The common sense in turn communicates the percept to the imagination. In the imagination, the percept is called a phantasm, which is a similitude of a particular thing.³⁹ Thus, what began by the multiplication of species by visible bodies terminates in the production of a phantasm.

By reflecting on the process, one can see that the role of the species is to communicate the *ratio* from one ontological level to the ontological level above it. Aquinas says "The species in the sensible thing has the most material being, and the species in the intellect has the most spiritual (i.e., immaterial) being. Hence, it is necessary that it transitions into this spirituality (i.e., immateriality) by some mediating degrees, inasmuch as in the sense it has a more spiritual being than in the sensible thing, and in the imagination a more spiritual [being] than in the sense, thus ascending one after the other."

However, the phantasm cannot affect the human intellect, which has an ontologically higher mode of being.⁴¹ For Aquinas, an ontologically higher

quia alterius modi esse habet forma in sensu, et in re sensibili. Nam in re sensibili habet esse naturale, in sensu autem habet esse intentionale et spirituale.

³⁸ Aquinas, *Sentencia De Anima*, Liber 3 Lectio 3. Considerandum est etiam, quod licet hoc principium commune immutetur a sensu proprio, quia ad sensum communem perveniunt immutationes omnium sensuum propriorum, sicut ad communem terminum; non tamen sensus proprius est nobilior quam sensus communis, licet movens sit nobilius moto, et agens patiente; sicut nec sensibile exterius est nobilius quam sensus proprius, licet moveat ipsum.

³⁹ Aquinas, *Summa Theologiae*, S.T. ¹a q. 84 a.7 r. 2. Ad secundum dicendum quod etiam ipsum phantasma est similitudo rei particularis.

⁴⁰ Aquinas, *Quaestiones Disputatae De Veritate*, q. 19 a. 1 resp. Quidam enim dicunt, quod sicut nunc a sensibilibus rebus species accipit mediantibus sensibus, ita tunc accipere poterit nullo sensu interveniente. Sed hoc videtur impossibile, quia ab extremo in extremum non fit transitus nisi per media. Species autem in ipsa re sensibili habet esse maxime materiale, in intellectu autem summe spirituale; unde oportet quod in hanc spiritualitatem transeat mediantibus quibusdam gradibus, utpote quod in sensu habet spiritualius esse quam in re sensibili, in imaginatione autem adhuc spiritualius quam in sensu, et sic deinceps ascendendo.

⁴¹ Aquinas, *Summa Theologiae*, q. 84 a. 6 resp. Nihil autem corporeum imprimere potest in rem incorpoream. Et ideo ad causandam intellectualem operationem, secundum Aristotelem, non sufficit sola impressio sensibilium corporum, sed

entity (i.e., more spiritual or immaterial entity) can affect an ontologically lower entity (i.e., a material thing), but an ontologically lower entity cannot affect an ontologically higher entity. 42 Consequently, an interesting problem arises. Namely, the phantasm contains the intentions that can "fertilize" (i.e., provide intelligible content for) the human intellect, but the phantasm cannot raise itself to a higher ontological level; on the other hand, the agent intellect is at a higher ontological level, but in and of itself it lacks the intentions that can "fertilize" the human intellect. Thus, neither the phantasm nor the agent intellect in and of itself is a sufficient condition to move the human intellect from potentially knowing to actually knowing. This is the very same problem that Averroes faced, and not surprisingly Aquinas's solution is similar to that of Averroes, except that for Aquinas the agent intellect and the possible intellect are potencies in each human soul. Aquinas states:

The power of the agent intellect produces some similitude in the possible intellect by the agent intellect's reverting upon the phantasms. This similitude is representative of the things whose phantasms these are only in regard to the nature of the species. And it is in this manner that the intelligible species are said to be abstracted from phantasms, not that numerically the form, which previously was in the phantasms, afterwards comes to be in the possible intellect, in the manner in which a body is taken from one location and transferred to another. 43

requiritur aliquid nobilius, quia agens est honorabilius patiente, ut ipse dicit. Non tamen ita quod intellectualis operatio causetur in nobis ex sola impressione aliquarum rerum superiorum, ut Plato posuit, sed illud superius et nobilius agens quod vocat intellectum agentem, de quo iam supra diximus, facit phantasmata a sensibus accepta intelligibilia in actu, per modum abstractionis cuiusdam. Secundum hoc ergo, ex parte phantasmatum intellectualis operatio a sensu causatur. Sed quia phantasmata non sufficiunt immutare intellectum possibilem, sed oportet quod fiant intelligibilia actu per intellectum agentem; non potest dici quod sensibilis cognitio sit totalis et perfecta causa intellectualis cognitionis, sed magis quodammodo est materia causae.

⁴² Aquinas, *Summa Theologiae*, q. 84 a. 1 r. 2. Ad secundum dicendum quod, sicut Augustinus dicit XXII de Civit. Dei, non est dicendum quod, sicut sensus cognoscit sola corporalia, ita intellectus cognoscit sola spiritualia, quia sequeretur quod deus et Angeli corporalia non cognoscerent. Huius autem diversitatis ratio est, quia inferior virtus non se extendit ad ea quae sunt superioris virtutis; sed virtus superior ea quae sunt inferioris virtutis, excellentiori modo operatur.

⁴³ Aquinas, *Summa Theologiae*, I^a q. 85 a. 1 ad. 3. Sed virtute intellectus agentis resultat quaedam similitudo in intellectu possibili ex conversione intellectus agentis supra phantasmata, quae quidem est repraesentativa eorum quorum sunt phantasmata, solum quantum ad naturam speciei. Et per hunc modum dicitur

Aquinas, like Averroes, is denying that the phantasm is able to come to be in the possible intellect. That is to say, it is clear that the form in the phantasm cannot move the possible intellect from potentiality to actuality; nevertheless, it is unclear what he means that the intelligible species are abstracted from phantasms. In another text, however, Aquinas explains what he means when he states that the intelligible species are abstracted from phantasms. Aquinas writes:

The agent intellect abstracts the intelligible species from phantasms insofar as by the power of the agent intellect we are able to receive in our consideration the natures of species, the similitudes of which inform the possible intellect, without their individuating conditions.⁴⁴

Like in Averroes, here as well, it is the *intentions* in the phantasms that are transferred from one order of being to another. Whereas previously the *intentions* existed sensibly within the phantasms, the same *intentions* now exist immaterially and intelligibly in the intelligible species, and subsequently in the concept. So are the intelligible species and concepts *likenesses of* the nature or are they *identical with* the nature? Before, answering the question, let us look at Avicenna's influence on the early Aquinas.

Remember that for Avicenna a nature could be considered in one of three ways - in itself, in a thing, and in the mind. In *De Ente et Essentia*, Aquinas follows Avicenna regarding the indifference of the nature, when he says:

If one inquires whether the nature thus considered is able to be called one or many, neither ought to be conceded because each is outside the understanding of humanity and each is able to pertain to it. For if plurality belonged to its understanding, then it could never be one; although it is one inasmuch as it is in Socrates. Likewise, if unity belonged to its understanding, then it would be one and the same in Socrates and in Plato and it could not be multiplied in several things. [...] However, this nature has a twofold existence: one in singular things and another in the soul; and

abstrahi species intelligibilis a phantasmatibus, non quod aliqua eadem numero forma, quae prius fuit in phantasmatibus, postmodum fiat in intellectu possibili, ad modum quo corpus accipitur ab uno loco et transfertur ad alterum.

⁴⁴ Aquinas, *Summa Theologiae*, I^a q. 85 a. 1 ad. 4. Abstrahit autem intellectus agens species intelligibiles a phantasmatibus, inquantum per virtutem intellectus agentis accipere possumus in nostra consideratione naturas specierum sine individualibus conditionibus, secundum quarum similitudines intellectus possibilis informatur.

the above-mentioned nature acquires accidents according to each. In singular things it has multiple [acts of] being according to the diversity of the singular things. Nevertheless, the same nature according to its primary consideration, namely absolutely, demands none of these [...] It remains that the [logical] notion of species accrues to human nature according to that being which it has in the intellect. For the same human nature in the intellect has being abstracted from all individuating conditions, and for this reason it has a uniform *ratio* in relation to all individuals that exist outside the soul, inasmuch as [this *ratio*] is equally a likeness of all [individual humans], leading to cognition of all [men] insofar as they are men. Thus, because it has such a relationship to all individuals, the intellect forms the [logical] notion of species and attributes it to the nature. Hence, the Commentator [i.e., Averroes] in the beginning of his *Metaphysics* says that it is the intellect that causes universality in things. Avicenna also makes the same point in his *Metaphysics*.⁴⁵

Suffice it to say that Aquinas was familiar with the notion of the indifference of nature, and it seems to me that Aquinas realized that the *ratio*, which Avicenna called an *intentio*, is that which is common to the nature *in* se, *in mente*, *and in re*. It is the *ratio* that allows Aquinas to say that there is a uniformity of *ratio* between the intellect and all the individuals existing outside the mind with the same *ratio*. In addition,

⁴⁵ Aquinas, *De Ente et Essentia*, Cap 2. Unde si quaeratur utrum ista natura sic considerata possit dici una vel plures, neutrum concedendum est, quia utrumque est extra intellectum humanitatis et utrumque potest sibi accidere. Si enim pluralitas esset de intellectu eius, nunquam posset esse una, cum tamen una sit secundum quod est in Socrate. Similiter si unitas esset de ratione eius, tunc esset una et eadem socratis et Platonis nec posset in pluribus plurificari. Alio modo consideratur secundum esse quod habet in hoc vel in illo, et sic de ipsa aliquid praedicatur per accidens ratione eius, in quo est, sicut dicitur quod homo est albus, quia socrates est albus, quamvis hoc non conveniat homini in eo quod homo. Haec autem natura duplex habet esse, unum in singularibus et aliud in anima, et secundum utrumque consequuntur dictam naturam accidentia. Et in singularibus etiam habet multiplex esse secundum singularium diversitatem et tamen ipsi naturae secundum suam primam considerationem, scilicet absolutam, nullum istorum esse debetur. . . . Relinquitur ergo quod ratio speciei accidat naturae humanae secundum illud esse quod habet in intellectu. Ipsa enim natura humana in intellectu habet esse abstractum ab omnibus individuantibus, et ideo habet rationem uniformem ad omnia individua, quae sunt extra animam, prout aequaliter est similitudo omnium et ducens in omnium cognitionem in quantum sunt homines. Et ex hoc quod talem relationem habet ad omnia individua intellectus adinvenit rationem speciei et attribuit sibi. Unde dicit Commentator in principio de anima quod intellectus est qui agit universalitatem in rebus. Hoc etiam Avicenna dicit in sua metaphysica.

having distinguished between the ratio and its mode of being. Aguinas can have the same *ratio* existing in various modes of being: in the form-matter composite, in the species in medio, in the sensible species, in the phantasm, in the intellect as intelligible species, and in the concept. So, if one considers the intelligible species or the concept according to the same ratio, one may rightly say that there is an identity between the form in the form-matter composite and the intellect, for the ratio is identical. However, if one considers intelligible species, the concept, the phantasm, the sensible species, and the species in medio according to their mode of being, one must say that they are similitudes, for they vary in their mode of being in relation to the form-matter composite. In addition, the species in medio, the sensible species, and the phantasm also vary in their mode of being in relation to each other: the former are more material and the latter less material. Thus, the intelligible species and the concept are formally identical with the nature in the form-matter composite because they have the same ratio, and yet they are also similitudes for the ratio exists immaterially in the intellect and materially in the form-matter composite. However, this should not be surprising, for Aquinas repeatedly states: "What is received is in the receiver in the way of the recipient."⁴⁶ In addition, in the Sentences Aquinas adds, "... and not in the way of what gives it."47 Thus, in a form-matter composite, the form must be received according to its mode of being, materially, ⁴⁸ and in an intellect the form that communicates the *ratio* must be received immaterially.⁴⁹

In sum, the incommensurability of the intellect and the material world and the assimilation of the known to the knower present problems in medieval epistemology. Aquinas uses species (both intelligible and sensible) in order to bridge the gap from the material world to an immaterial intellect. In addition, species communicate a *ratio* that can exist under various modes of being; thus, Aquinas safeguards the objectivity of sense and intellectual cognition, for if the *ratio* were not indifferent to its mode of existence, then whenever its mode of existence would change, the *ratio* would also change. If one considers the form-matter composite and the subsequent species from the point of view of *ratio*, one can say that the

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⁴⁶ Aquinas, *Scriptum Super Sententiis Magistri Petri Lombardi*, Bk 4. d. 36 a.4 resp. Aquinas, *Summa Theologiae*, I^a q. 84 a. 1 resp. Receptum est in recipiente per modum recipientis.

⁴⁷ Aquinas, *Scriptum Super Sententiis Magistri Petri Lombardi*, Bk 4. d. 36 a. 4 resp. ... et non per modum dantis.

⁴⁸ Ibid.

⁴⁹ Aquinas, Summa Theologiae, I^a q. 85 a.1 resp.

ratio is identical. However, if one considers the ratio along with its mode of being, then species and phantasms are similitudes of the forms of things. The distinction of the ratio and its mode of being are doctrines that Aquinas seems to have adopted from Avicenna. The notion of transferring the intention in the imagination seems to have been adopted from Averroes. These two Arab doctrines help Aquinas safeguard the objectivity of cognition at the sensitive and the intellectual level.

Conclusion

Aquinas's metaphysics entails that form as such is the principle of cognition, but form in form-matter composites is not the principle of cognition. Thus, if there is going to be intellectual cognition, the form in the knower must be numerically distinct from the form in the form-matter composite. As a result, some say that Aquinas is a representationalist. The incommensurability of the intellect and the material world and the assimilation of the known into the knower are problems that give rise to the notion of species, which is intended to bridge the ontological gap between the material world and the immaterial intellect. In addition, species are intended to communicate a ratio, a formal characteristic that intentionally specifies and determines it subject. Avicenna's doctrine of the indifference of a nature allows Aguinas to assert that there is a relationship of identity and similitude between the knower and the known. The indifference of *ratio* to its mode of being also allows the same *ratio* to be communicated via species, thus safeguarding the objectivity of sense and intellectual cognition. Averroes's doctrine of intentional transference allows Aguinas to claim that the same ratio or intentio that is found in the imagination and in particular things is found in the intellect. Having learned from Avicenna and Averroes, Aquinas can say "[...] the intelligible species is a likeness of the essence of a thing and, in some manner, it is the very quiddity and nature of the thing according to intelligible being, not according to natural being inasmuch as it is found in things.",50

⁵⁰ Aquinas, *Quaestiones Quodlibetales* 8, q. 2, a. 2, resp.: "Unde species intelligibilis est similitudo ipsius essentiae rei, *et* est quodammodo ipsa quidditas et natura rei secundum esse intelligibile, non secundum esse naturale, prout est in rebus"

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